

The Senate Interim Committee on Natural Resources



Interim Report to the 78th Legislature

Natural Disasters

August 2002

TABLE OF CONTENTS

ACRONYMS..... 3

INTRODUCTION..... 4

INTERIM CHARGE..... 5

BACKGROUND..... 6

STATE’S ABILITY TO RESPOND TO NATURAL DISASTERS..... 9

DIVISION OF EMERGENCY MANAGEMENT..... 9

HURRICANES..... 11

TROPICAL STORMS..... 17

COASTAL FLOODING..... 20

RIVER BASIN FLOODING..... 21

FLOOD LIABILITY..... 27

POPULATION GROWTH / LAND USE - INCREASE VULNERABILITY.....49

COAST..... 49

RIVER BASINS..... 54

RECOMMENDATIONS..... 56

APPENDICES..... 64

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

ACRONYMS

BRCS	Blue Ribbon Committee Study
CCC	Coastal Coordination Council
CMP	Coastal Management Plan
DEM	Division of Emergency Management
DPS	Department of Public Safety
EOC	Emergency Operating Center
ETIS	Evacuation Traffic Information System
FTE	Full Time Employee
FEMA	Federal Emergency Management Association
GLO	General Land Office
HAL	Hazard Advisory Laboratory
HRRC	Hazard Reduction and Recovery Center
LCRA	Lower Colorado River Authority
MAS	Marine Advisory Service
NCTCOG	North Central Texas Council of Governments
NEMA	National Emergency Management Association
SCR	Senate Concurrent Resolution
TFMA	Texas Floodplain Management Association
TLETS	Traffic Law Enforcement Telecommunications System
TNRCC	Texas Natural Resource Conservation Commission
TNRIS	Texas Natural Resource Information System
TWAC	Texas Water Advisory Council
TWDB	Texas Water Development Board

INTRODUCTION

The state of Texas has experienced many natural disasters in its storied history that have claimed thousands of lives and produced property damage in the millions of dollars. Recent natural disasters, such as Tropical Storm Allison which hit the Houston area in June, 2001 and the south central Texas flooding of July, 2002 , coupled with the events of September 11, 2001 and the passage of the Federal Disaster Mitigation Act of 2000 have provided the necessary impetus for the State of Texas to examine all aspects of its emergency management of both natural and man-made disasters. In the fall of 2001, Governor Rick Perry convened the Governor's Task Force on Homeland Security to assess Texas' efforts to address man-made threats. As part of the Texas Legislature's interim studies, Lieutenant Governor Bill Ratliff charged the Senate Natural Resources Committee with analyzing the state's efforts to confront natural disasters.

INTERIM CHARGE

The Senate Natural Resources Committee (Committee) was charged by Lieutenant Governor Bill Ratliff to study and evaluate the state's ability to respond to natural disasters, such as hurricanes, tropical storms, coastal flooding, and flooding along the state's river basins; assess the extent to which population growth and land use along the coast and the river basins has increased the state's vulnerability to such hazards. The Committee shall make recommendations on the state's flood mitigation program and the state coordination with the federal government and political subdivisions of the state.

BACKGROUND

The state of Texas has 367 miles of coastline and 191,228 miles of rivers and streams which is evidence of the grand scale upon which natural disasters can occur. A recent study of natural disasters over the last 25 years found that Texas is the most storm hazardous location in the United States.¹ Texas accounted for 10 percent of the almost 9,000 American hazard deaths that occurred from 1975 to 1998 because of floods, hurricanes, tropical storms and tornadoes. The number of Texas' deaths was more than five times the national average and nearly twice that of Florida, the state that ranked second. From 1975 to 1998, Texas recorded 442 deaths and \$10.2 billion in property damage from floods alone.

Texas is the location of multiple natural disasters because of the dangerous combination of several meteorological factors such as its proximity to the Gulf of Mexico and the Pacific Ocean off the west coast of Mexico, the Rocky Mountains, and the high altitude jet stream. Another factor is the unusual West Texas "dry line" that is an invisible atmospheric separation of dry desert air from moist air from the Gulf of Mexico. This dry line serves as the birthplace for the big storms of spring and fall that suck up Gulf or Pacific moisture for the heavy rains that cause flash flooding.

The devastation of Tropical Storm Allison that occurred in June, 2001 in Houston serves as a reminder to all Texas citizens as to how powerful and deadly severe weather can become in Texas. President Bush provided the Houston area with a

¹ American Hazardscapes: The Regionalization of Hazards and Disasters, National Academy Press, edited by Susan Cutter.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Presidential Disaster Declaration and, only three months after Allison had occurred, FEMA reported that 112,769 residents registered for assistance and more than \$747 million in federal and state aid had been provided to families and businesses.

In response to Presidential Disaster Declarations and natural disaster events throughout the United States, the U.S. Congress passed the Disaster Mitigation Act (DMA) of 2000 which was intended to control and streamline the administration of federal disaster relief and mitigation programs as well as reinforce the importance of pre-disaster mitigation planning to reduce disaster losses. The DMA created a National Pre-Disaster Mitigation Fund to provide state and local governments with technical and financial assistance. On February 26, 2002, FEMA issued its interim final rules on the implementation of the DMA in the Federal Register. The key provision of the DMA and its rules is the requirement that states generate a FEMA approved mitigation plan by November 1, 2003 in order for states to receive federal assistance during Presidential Disasters. Local jurisdictions must either have, or be a signatory to a multi-jurisdiction, FEMA approved, Mitigation Action Plan, in order to be eligible for FEMA grant programs during Presidential Disasters.

The efforts by the state and local officials to meet the requirements of the DMA are crucial with regard to the potential lives that could be saved with additional federal dollars. Since 1961, Texas has averaged approximately two Presidential Disaster Declarations and three Small Business Declarations annually.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The State of Texas has previously studied its efforts to reduce the effects of natural disaster which is embodied in the Blue Ribbon Committee Study (BRCS) that was produced as a result of Senate Concurrent Resolution (SCR) 68 from the 76th Legislature. SCR 68 was enacted to address some of the issues that arose out of the four major weather events that occurred in 1998, including the October/November floods in central Texas. The BRCS identified many changes that need to be made to the state's response to natural disasters and is a relevant document to both the Committee's interim charge and upcoming Legislatures.

With state funding at a premium with budgetary concerns growing daily, it is important that individuals involved with emergency management identify resources and personnel that can be shared and utilized by efforts to combat both man-made and natural disasters. It is likely that the recommendations of the Governor's Task Force on Homeland Security will result in substantial legislation which could also serve as a means to address natural disaster response efforts.

STATE'S ABILITY TO RESPOND TO NATURAL DISASTERS

DIVISION OF EMERGENCY MANAGEMENT

The state entity that has the responsibility for the state's emergency management efforts is the Division of Emergency Management (DEM). DEM was created by the Texas Disaster Act of 1975 (Appendix A) which assigned the responsibility of emergency management to the Governor of Texas. The Disaster Act also created the State Emergency Council (Council) and required a state emergency management plan be implemented. The Governor by executive order (Appendix B) appoints the Director of the Texas Department of Public Safety (DPS) as DEM Director and Council Chairperson. The Governor's executive order also creates 21 disaster districts (Appendix C) and committees and appoints the committee chairpersons.

While the entity is under the control of the Governor, DEM is a division of DPS and the Director of DPS selects a State Coordinator who handles the daily operation of the division. The structure of DEM is based on the four phases of emergency management: mitigation, preparedness, response, and recovery. DEM has been designated 74 personnel to perform the duties it has been assigned by the Texas Disaster Act, Chapter 418 of the Government Code, and the Governor's Executive Order. The size of DEM's staff is small in relation to the emergency management agencies of other states of comparable size. In a National Emergency Management Association (NEMA) survey, emergency management agencies in large states (population of 10 million or more) had from 77 full time employees (FTEs) to 555 with

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

an average of 160 FTEs. In 1993, the Federal Emergency Management Agency (FEMA) formed a group to create model requirements for state emergency management programs. The FEMA group proposed a staffing pattern of 158 personnel for states with populations between 10 and 20 million and Texas currently has a population over 20 million.

The DEM discharges its responsibilities through the State Emergency Management Council which consists of thirty state agencies and two volunteer organizations, the American Red Cross and the Salvation Army. The channels for requesting operational assistance (Appendix D) begin with the individual city or county contacting the appropriate disaster district. Depending on the type of assistance required, the request may go to the State Emergency Operating Center (EOC) in Austin. The State EOC is staffed 24 hours a day and is an underground, protected facility for centrally coordinating a state response through the 21 disaster district EOC's. Since 1996, the State EOC has been activated 150 days per year on average.

HURRICANES

DEM has produced an Emergency Management Plan for the state that is available on the internet¹ and covers every aspect of disaster response and emergency management. The Plan also includes Annexes lettered from A to W that target specific aspects of emergency management and describe in detail the proper protocol and procedures that must be followed. In regards to hurricanes, Annexes A (Warning), C (Shelter and Mass Care) and E (Evacuation) are particularly pertinent.

DEM has also created the Texas Coastal Advisory Team (TCAT) to help coordinate efforts along the Texas coast to address hurricane preparedness for the State of Texas. TCAT is an advisory group that was established to bring practical and technical expertise to hurricane preparedness in the State of Texas. The membership of TCAT is comprised of the 22 Texas counties that contain hurricane risk areas; three Regional Liaison Officers who work with coastal jurisdictions, a representative from each of the four National Weather Service Offices that service Texas coastal counties, a representative from each of the three emergency management associations in Texas, a representative from the Texas A&M Hazard Reduction and Recovery Center, the FEMA Region VI Hurricane Program Manager, and the Texas Natural Hazards Officer.

¹ DEM's State Emergency Management Plan.
www.txdps.state.tx.us/dem/documents.htm#stateplan

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

TCAT provides a significant role in hurricane preparedness in Texas by performing several important tasks including evaluating the usefulness of existing hurricane planning and decision-making products, such as computer software, and recommending new products or methods that will enhance the Texas preparedness program. TCAT also is charged with acting as a clearinghouse for concerns and ideas of coastal emergency management officials, and assisting DEM in administering the Local Grant Program. TCAT makes its recommendations to the State Coordinator who has final approval authority.

TCAT has been closely involved with DEM in the transition for the State of Texas from the Estimated Time of Evacuation Decision (ESTED) system software to the HURREVAC (HURricane EVACuation) program that is used throughout the United States. The Army Corp of Engineers (ACE) developed the HURREVAC software and Texas is currently the only state that uses an alternative system. The Hazard Analysis Laboratory (HAL) at Texas A&M University developed and administered the ESTED system and DEM asked HAL to compare the results of evacuation decision times calculated by both HURREVAC and ESTED in a multitude of storm situations. In an effort to protect the unique capability of ESTED to project tidal surges, the ACE has worked with DEM to develop a version of the HURREVAC program which considers early storm surge as well as wind factors. While the State EOC has already adopted HURREVAC as its primary tracking and display program, the adapted HURREVAC program could then be used by entities for both display and tracking purposes and for evacuation decision-making. TCAT and its members are working with ACE to identify low-lying points on hurricane evacuation routes that can be incorporated into Texas's HURREVAC program by June 1, 2002.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Local entities and elected officials are also integral to the success of the overall effort to respond to natural disasters and, ultimately, to save lives. In an effort to increase local involvement and improve the coordination and sharing of resources between state and local officials, Senator Brown filed Senate Bill (SB)1203 (Appendix E) which required the DEM to create a coastal hazard reduction and recovery annex to the comprehensive state emergency management plan. The annex would have been required to include the following information:

1. provisions for reduction of and recovery from coastal hazards;
2. provisions for providing assistance to local jurisdictions in the preparation of coastal hazard vulnerability assessments;
3. a process for the integration of local coastal jurisdictions' vulnerability assessments into a Texas coast-wide vulnerability assessment;
4. a process to network local coastal emergency operations centers into the state operations center and provide instant hazard analyses, evacuation route information, and support assets of cities designated as evacuation destinations; and
5. a procedure to conduct post-hazard analysis and validation of vulnerability assessments.

SB 1203 was passed out of the Senate Natural Resources Committee but was not heard by the full Senate. SB 1203 was given a fiscal note of \$4.6 million by the

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Legislative Budget Board after receiving information from DEM, the Texas Department of Transportation and the General Land Office. DEM estimated that implementation of SB 1203 would require 26 additional personnel to provide the field operations to assist local governments in planning, training and exercising in preparation of coastal hazards. To reduce the fiscal note and to save employee and technology costs, DEM could outsource the training of local officials to other state agencies and entities that currently have staff in place who could provide such training with a smaller investment of funds.

One state entity that has the capabilities to increase its involvement with DEM and help the State of Texas prepare for coastal events is the Hazard Reduction and Recovery Center (HRRC) which was established at Texas A&M University in 1988. Currently, the HRRC's staff focus on hazard analysis, emergency preparedness and response, disaster recovery, and hazard mitigation. During activation of the State's EOC, the HRRC provides a team of research scientists to the EOC to prepare storm intelligence information and to analyze potential storm impacts. While a team is dispatched from the HRRC, other staff remains at work in the Hazard Analysis Laboratory (HAL) which is part of the HRRC. HAL supplies the state and local leaders with real time information on approaching storms by utilizing the geographical information system (GIS) data that the HRRC staff has at its disposal. The HRRC staff is comprised of geographers, urban planners, architects, construction scientists, civil engineers and sociologists.

Another state entity that has resources and personnel that could be used to train and coordinate local efforts to confront natural disasters is the Texas Sea Grant Marine

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Advisory Service (MAS). MAS is supported by the Texas Sea Grant College Program in cooperation with the Texas Cooperative Extension. The Texas Sea Grant College Program was created in 1971 at Texas A&M University after A&M was designated as a Sea Grant College. MAS has a system of county extension agents specifically trained to deal with coastal and marine issues at the county and local level and who could assist local emergency managers, especially in the area of training. Currently, MAS has county extension marine agents stationed in Jefferson/Chambers, Galveston, Brazoria, Matagorda, Calhoun, Aransas, and Cameron Counties and several marine agents are already involved in the Local Emergency Planning Committees in their areas. MAS works with the HRRC to provide training for its MAS county agents who have received education on the various computer programs and software that provide hurricane and storm intelligence to local officials.

Another state resource that is available to help Texas confront natural disasters is the Bureau of Economic Geology (BEG) at the University of Texas at Austin. BEG has been involved in the development of the Texas Coastal Hazards Atlases which are being developed in response to the need for technical information by coastal planners and to increase public awareness of coastal processes. The atlases include, among other things, information on hurricane surge and flooding, subsidence, and washover features. The area covered in Volume 1 is the southeast coast from the Brazos River on the west to Sabine Lake on the east. The area covered in Volume 2 is the middle coast from the Brazos River on the east through Corpus Christi Bay on the west. The area covered in Volume 3 will be the south coast from Corpus Christi Bay on the north through the Rio Grande on the south.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Volumes 1 and 2 have been completed. The Bureau of Economic Geology (BEG) is still working on Volume 3. It should be complete by September 30th. BEG has made the atlas available to the public through their website and continues to plot maps on request for the public.

The State of Texas can also take advantage of federal sources of funding for the hurricane programs in Texas through two revenue streams, the Emergency Management Performance Grant (EMPG) and the Hurricane Evacuation Studies (HES). EMPG funds are supplied by FEMA to help a state's emergency management program activities. A portion of EMPG is designated to fund hurricane activities and the state is required to match EMPG funds to demonstrate it is committed to the program. In Fiscal Year (FY) 2001, the required state match level was 50%. EMPG monies fund the Natural Hazards Officer and the Hazard Mitigation Officer positions, the Property Protection Mitigation (PPM) and Local Grant Programs and TCAT. The State of Texas is scheduled to receive \$150,000 in EMPG funds in FY 2001 and the state has flexibility in its use of EMPG funds.

HES funds are designed for Sea Lake Overland Surge Heights (SLOSH) studies and the follow on planning products that are based on SLOSH. A state receives HES monies only when one of its study areas has been identified to get a new SLOSH sequence. It is estimated that HES funds continue to pay for follow on products for three years after a SLOSH study is completed. The State of Texas is projected to receive \$150,000 in HES funds during FY 2001.

TROPICAL STORMS

The state of Texas and its residents have experienced many tropical storms but the events of Tropical Storm Allison demonstrated the deadly power of natural disasters. Allison killed 22 individuals and produced close to \$5 billion of property damage with over 50,000 households flooded as its rain produced flooding levels above the forecasted 100 year flood event. It is important that lessons learned as a result of Allison on all levels of emergency management be used to effect necessary changes.

One of the state entities that responded to Allison was the TNRCC which was engaged in the numerous environmental issues that occur during flooding events as well as providing support for other state agencies. The TNRCC found that its activation of its Strike Team was successful in its efforts to coordinate governmental entities to respond to abandoned containers and investigated spills at refineries and in the Houston Ship Channel. TNRCC also discovered how crucial communication can be during a natural disaster and its aftermath. TNRCC successfully established and maintained communication with other state, local and federal agencies to prevent the mishandling of contaminated substances or other major environmental mishaps. TNRCC was also actively involved in numerous public awareness activities with local radio and television stations to warn citizens of possible environmental dangers. TNRCC also discovered that alternative means of communications are necessary when phone systems are inoperable and television and radio are not available.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The city of Houston and its surrounding areas benefitted from the facilities, technology, and expertise provided by TranStar which is a partnership of four governmental agencies: Harris County; the City of Houston; the Metropolitan Transit Authority of Harris County; and the State of Texas. During Allison, the Houston TranStar EOC was activated to coordinate a quick and efficient response. The facilities available at TranStar enabled governmental entities to monitor all traffic distributions with video and computer technology as well as track the weather simultaneously. The Harris County Office of Emergency Management has identified communications as one of the major issues that has to be addressed to improve emergency response. DEM uses the Traffic Law Enforcement Telecommunications System (TLETS) to distribute important weather and contingency information but many emergency managers are not located in the same facility as the TLETS terminal in many governmental entities.

The Committee also studied the impact on tropical storms and its substantial flooding on the state's infrastructure such as hospitals. The Texas Medical Center in Houston is one of the most renown centers of medical care and research and was one of the areas hardest hit by Allison. The flooding at the Medical Center was so severe that many basic and important elements of care were not available and the patients that were in the most danger were eventually airlifted by helicopter to other hospitals with the help of the U.S. Coast Guard. Problems did exist for the Medical Center in its attempts to utilize the resources of the National Guard. In light of Allison, the Medical Center has also moved many important functions such as telecommunications and electricity to locations above ground and out of the basement areas that were quickly flooded.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The Committee also analyzed other elements of Texas' infrastructure such as electric utilities and petrochemical and oil and gas companies that are so prevalent in the Gulf Coast area. Both the electric utility and the petrochemical companies had comprehensive emergency management plans in place at the time that Allison arrived in Houston. Many of the companies stressed the importance of mutual aid agreements that were executed before natural disasters and allowed expert personnel and resources from areas not impacted by Allison to travel to Houston with clearly establish roles and duties.

COASTAL FLOODING

Coastal flooding is closely related to hurricane and tropical storm events and it creates many of the same challenges for governmental entities. In Texas, several state entities deal with coastal flooding as part of their operational responsibilities.

The Texas Natural Resource Conservation Commission (TNRCC) and, specifically, its state National Flood Insurance Program (NFIP) coordinating office, is responsible for identifying and publishing information and maps in regards to floodplain areas, including the state's coastal areas, which contain information on flood hazards. The Texas Legislature also targeted coastal flooding during the 77th Legislature in Senate Bill (SB) 936. SB 936 incorporated many of the recommendations of the Blue Ribbon Committee (BR Committee) Study that was created by Senate Concurrent Resolution (SCR) 68 during the 76th Legislature. SB 936 charged the Land Commissioner with adopting and enforcing reasonable rules and regulations necessary for protection from flooding on barrier islands, peninsulas, and mainland areas fronting the Gulf of Mexico.

RIVER BASIN FLOODING

The State of Texas annually is faced with loss of lives and property due to flooding events along its river basins. In Texas, 20 million of the state's 171 million acres are flood prone which is the largest amount in the U.S. and, on average, Texas suffers \$254 million in losses in crop and property damage each year from flooding. Presently, Texas is listed in the top four states with the highest number of repetitive flood losses and \$1.6 billion in flood insurance claims have been paid in Texas since 1978.

As stated previously, DEM has a State Emergency Management Plan that has established procedures for addressing natural disasters in Texas, including flooding along Texas' river basins. When SCR 68 was passed during the 76th Legislature and the BR Committee was formed, the State Coordinator for DEM, Tom Millwee, served as the Chair and helped direct the efforts of the BR Committee Study. Many of the recommendations of the BR Committee could make significant impacts on the activities and makeup of the DEM and remain applicable and relevant to the Legislature's efforts during the 78th Legislature.

The Texas Natural Resources Conservation Commission (TNRCC) also is directly involved with river basin flooding as the State Coordinating Agency for the NFIP. The NFIP State Coordinator and staff assist communities within the state in the communities' efforts to join the program and establish sound floodplain management practices.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The NFIP was created in 1968 with the intent to have those individuals and entities who are located in designated flood prone areas share in the risk of flood damage through the purchase of federally subsidized flood insurance. Requirements were established to encourage participation in the program such as mandating that a borrower, who is trying to obtain a loan backed by federal dollars, must purchase flood insurance as a condition of receiving the loan. Another provision of the NFIP requires an applicant for federal aid from flood related disasters to obtain flood insurance as a condition of the loan or grant before the federal aid can be received.

While the NFIP was established by Congress to provide low-cost, federally subsidized flood insurance, Congress placed the responsibility of direct floodplain management on the local communities who were charged with adopting ordinances and court orders. When a community has met the requirements of the NFIP, then flood insurance is available to all residents of the community and not just those who live within the flood prone areas.

The Texas Legislature has taken specific steps during the last two legislative sessions to increase the number of Texas communities that are participating in the NFIP. In the 76th Legislative Session, House Bill (HB) 1018 was enacted that requires the governing body of each city or county to adopt ordinances or orders necessary for those entities to be eligible to participate in the NFIP. While the requirement exists in statute, proper enforcement is lacking due to the limited resources available to the TNRCC and its state coordinating office which is currently staffed with two full time employees (FTEs). The State of Texas is missing out on millions of dollars in federal funding every time a flooding event occurs and the

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

proper steps to participate in the NFIP have not been taken by the affected communities. During the 77th Legislative Session, Senator Armbrister authored SB 936 which gave specific authority to counties to enforce a floodplain management court order through the use criminal and civil penalties. SB 936 also allows Texas communities to collect reasonable fees to cover administrative costs incurred by a local floodplain management program and now enables counties to exceed the FEMA's minimum requirements of floodplain management. The significance of SB 936 is found in the fact that the legislation incorporated several of the recommendations of the BR Committee Study that was completed in January, 2001.

The State NFIP Coordinator and the other staff member are tasked with assisting the 1,100 Texas communities that participate in the NFIP. Texas currently has eight million structures located within a floodplain and has 347,265 insurance policies in force which ranks Texas 3rd in the nation. Texas also has a total flood insurance coverage of \$46.5 billion which places Texas 3rd in the nation. In a comparison with other nearby states, Texas has a ratio of 1 FTE per 667 participating communities in the NFIP while Louisiana, with 4 FTEs, has a 1/86 ratio and Arkansas, with 3 FTEs, has a 1/119 ratio.

The TNRCC receives a federal grant of \$134,460 from FEMA to assist communities to maintain a sound floodplain management program. The State of Texas provides \$44,820 in matching funds. State Coordinator and staff hold training workshops for community officials and meet with county and municipal governments to explain the program. Sample legal documents and ordinances, as provided by the State

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Coordinator, lay out the minimum requirements for NFIP participation. The state NFIP coordinating office responds to Disaster Field Offices to assist communities to implement the NFIP relating to assessment of damages, permitting of damaged structures and claims. In addition, the state NFIP coordinating office reviews and ranks Flood Mitigation Assistance Program proposals submitted to the TWDB for funding pre-disaster mitigation initiatives.

The TWDB also is involved in efforts by the state to respond to flooding along Texas' river basins. The TWDB has 1 FTE who administers the Flood Mitigation Assistance Program and has under its jurisdiction the Texas Natural Resources Information System (TNRIS). TNRIS is a state research and distribution center for historical maps and photos, census information, weather data and publications, and works with state agencies daily. For example, TNRIS provides DEM with data on floodplain elevations and the effects of natural disaster. TNRIS also has interaction with many state and federal entities as part of StratMap which is the Strategic Mapping Program that provides digital base map layers for Texas. TNRIS is currently working on a National Map of Texas which will be the biggest change in mapping in 150 years. The work invested in StratMap will be included in the National Map pilot project which will produce a product that benefits everyone through supplying data on flood maps, homeland security, census, and transportation. Finally, TNRIS is involved with FEMA and LCRA in a National Map of Texas pilot project. TNRIS's goal is to provide a newer, more affordable process for Texas to update the Digital Flood Insurance Rate Maps.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The river authorities in Texas also play a crucial role in floodplain management and responding to river basin flooding. A function that river authorities can provide in responding to river basin flooding and floodplain management is the modeling and projection projects that can provide warnings and increased public awareness. One river authority, LCRA, created a model that transposed Tropical Storm Allison that hit the Houston area in June, 2001 on to LCRA's service area. By visually identifying building structures and residential areas that would be impacted by flooding of that magnitude, the LCRA raised the public awareness within its jurisdiction, particularly with an article that was published on the front page of Austin's daily newspaper.

Several river authorities have been instrumental in the formation of regional coalitions that are working together to increase the effectiveness of floodplain management and emergency management programs. For example, the Lower Colorado River Authority (LCRA) and the communities in the lower Colorado River basin formed the Texas Colorado River Floodplain Coalition (Coalition) in 1999 to study issues such as increased growth, both residential and commercial, along the Colorado River basin and ways to minimize effects of devastating floods that have reoccurred in the basin. The Coalition (Appendix F) now has over 30 participating communities. Challenges identified by the Coalition are the lack of accurate, up-to-date flood maps to identify areas most at risk from flood damage and a lack of adequately trained floodplain administrators. The Coalition has been successful in obtaining a \$447,000 grant from FEMA to begin revising and digitizing flood maps for two counties in the basin.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Another Texas river basin that has taken a regional approach has been the Trinity River Common Vision Program. The North Central Texas Council of Governments (NCTCOG) helped organize a partnership of communities and governmental entities in the Trinity River basin to facilitate floodplain management efforts. NCTCOG has instituted several programs in recent years to increase the sharing of ideas and technical information such as a floodplain administrators roundtable and FEMA certification training. The Common Vision Program also initiated a sophisticated floodplain mapping project that used digital photography and computer mapping to locate every habitable structure in the floodplain. NCTCOG's mapping effort was submitted to FEMA in 1998 as a flood insurance restudy of the Trinity River floodplain and FEMA integrated the Trinity River product into its overall Flood Insurance Rate Map updates of Dallas, Denton, and Tarrant Counties.

The State of Texas also has the ability to supplement its effort with private organizations involved with floodplain management. The Texas Floodplain Management Association (TFMA) is comprised of over 500 members from cities and counties, and holds annual conferences and training seminars. The TFMA provides facilities and personnel to allow individuals to become Certified Floodplain Managers which raises the level of floodplain management and natural disaster response throughout the state. The TFMA has submitted a White Paper (Appendix G) to the Committee that provides comments and recommendations from the TFMA Board of Directors on floodplain management in the state of Texas.

FLOOD LIABILITY

The Committee received testimony regarding flood liability at its February 11, 2002 public hearing in Dallas from several river authorities including the San Jacinto River Authority, Tarrant Regional Water District, Sabine River Authority, and Guadalupe-Blanco River Authority. The testimony focused on difficult issues that face many river authorities in Texas when litigation has been filed against them by property owners whose land has been impacted by flooding events. In response to a request by several members of the Committee, the Texas Water Conservation Association Risk Management Fund submitted a memo that provides background and outlines the issues involved with flood liability. The following, denoted by italic print, is the memo that was submitted.

A. Introduction

Texas courts have expressly recognized temporary taking of land as a result of flooding as a specific type of inverse condemnation claim. In 1961, the Texas Supreme Court held that to prove a 'taking' under article I, section 17 of the Texas Constitution, a landowner whose property has been flooded must show that the damage claimed is the result of repeated and recurring, rather than sporadic, flooding caused by the government entity. Brazos River Auth. v. City of Graham, 354 S.W.2d 99,108 (Tex. 1961) (emphasis added).

Over time, inverse condemnation claims based on flood damage have shown that the enforcement and/or further development of the Supreme Court's interpretation of the Texas Constitution in Brazos River by lower courts has not been consistent. Also, some damage awards appear to be considerably excessive considering the nature, extent, and frequency of the alleged flood damage. One such case is Tarrant County Regional Water Dist. v. Gragg, 43 S.W.2d 609 (Tex. App.—Waco 2001, pet. denied), which affirmed a \$10,000,000 damage award against the Water District. Unfortunately, the Supreme Court denied review in Gragg; however, there is still some hope for relief because the Water District's motion for rehearing remains pending.

The purpose of this memo is to briefly identify specific examples of how the courts have handled the constitutional taking issue under varying circumstances, list some of the probable factors that lead to verdicts in cases like Gragg, and to suggest potential legislative means to address those factors in order to apply a more reasoned and objective approach to temporary takings claims based upon flooding.

B. Identification of problems.

The following are examples of primary problems that are now apparent in takings cases related to temporary flooding events:

(1) *inconsistent application of the common law "taking" rule, which requires repeated and recurring flooding to constitute a "taking" under the Texas Constitution;*

(2) *ambiguity regarding what it means for flooding to be "repeated" or "recurring in order to constitute a "taking" as a matter of law;"*

(3) *local and, therefore, dispersed venues, which tend to have a low level of experience in these cases because they are so rare within any given venue and in which Courts have recently seemed to favor the interests of landowners over governmental entities;*

(4) *inconsistent or excessive damage awards, including awards which provide a “double recovery” in cases where the landowner receives the benefits of flood or disaster benefits.*

(5) *lack of measurable expertise, and a clear lack of understanding by judges and juries, in the areas of geography and hydrology which are essential to differentiating the cause(s) of temporary flooding related to these types of claims.*

C. The Bases for Claims

The main theory urged by plaintiffs to recover damages caused by temporary flooding of property is to assert a constitutional “taking” claim through an inverse condemnation proceeding. TEX. CONST. art. I, § 17. A constitutional “taking,” which may be based upon a temporary invasion of private property, requires proof that (1) a governmental entity intentionally performed certain acts (2) which damages or takes property from a private citizen (3) for public use. The question of whether a “taking” has occurred is one of law - for the court - while the question of damages -diminished use or value of property caused by the taking are a question of fact. This theory has become the most popular since claims based upon other causes of action, such as those for common law torts of negligence or trespass , are governed by the Texas Tort Claims Act under which governmental immunity is not waived for this type of property damage or “loss” and these governmental entities are immune from suit and liability for such

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

claims in most such cases. See City of Tyler v. Lykes, 962 S.W.2d 489 (Tex. 1998). Claims are also based “nuisance,” Montgomery County v. Fuqua, 22 S.W.3d 662 (Tex. App.—Beaumont 2000, pet. denied) but nuisance claims are considered a form of inverse condemnation under these circumstances. Cf., Golden Harvest Co., Inc., v. City of Dallas, 942 S.W.2d 682 (Tex. App.—Tyler 1997, pet. denied). Any legislative enactment relating to such claims should address both expressly stated inverse condemnation claims as well as those labeled as nuisance claims.

Prior to the adoption of article I, § 17 of the Texas Constitution in 1876, Texas courts held that there must be a “direct, physical invasion of the property before the owner thereof could be compensated for a ‘taking’ of such property.” State v. Hale, 146 S.W.2d 731 (Tex. 1941). Property owners were usually unable to prevail on a takings claim prior to the adoption of article I, § 17.

In 1943, the Dallas Court of Appeals held in Tarrant County Water Control & Improv. Dist. No. 1 v. Fowler, 175 S.W.2d 694 (Tex. Civ. App.—Dallas 1943), writ ref’d w.o.m., 179 S.W.2d 250 (Tex. 1944), that “when land is flooded, or its drainage prevented by the obstruction of the flow of water, or it is diverted from its natural channels, in general, such a taking or injury entitles the owner to compensation, although the improvement causing the injury was authorized by the legislature.” The court noted that property damage caused by floods as a result of governmental action are no different, under the goals for compensation provided by Article I, § 17, than when the government physically takes someone’s property, or places an artificial structure upon it. In Fowler, the defendant built a dam across the Trinity River for the purpose of controlling floods and conserving water. Creation of the dam produced substantial backwater which inundated the plaintiffs’ lands on numerous occasions.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

By 1961, the Texas Supreme Court had created the common law rule noted above, which requires a landowner asserting a constitutional taking claim due to temporary flooding to show, among other things, that the flooding occurred repeatedly or continuously. Brazos River Authority v. City of Graham, 354 S.W.2d 99 (Tex. 1961). Brazos River arose out of damage to the city's water treatment plant, sewage disposal plant and channel reservoir as a result of flooding caused by the construction, maintenance and operation of a dam. Brazos River is important for at least three reasons. First, the Court reaffirmed that the issue of whether a "taking" has occurred is a question of law for the court. Second, the rule adopted by the Court is simply one of common law. Thus, it is subject to modification by legislative enactment, in a manner consistent with the constitution.² Third, the Supreme Court adopted the argument that isolated or sporadic instances of increased flooding do not result in a taking for constitutional purposes. Unfortunately, since its relatively clearly enunciated holding in 1961, Brazos River has been interpreted differently by different courts.

² See *Transportation Ins. Co. v. Moriel*, 879 S.W.2d 10, 20 (Tex. 1994); *Eisen v. State*, 40 S.W.3d 628, 635 (Tex. App.—Waco 2001, pet. ref'd) (citing *Silver v. Silver*, 280 U.S. 117, 122, 50 S.Ct. 57, 58, 74 L.Ed. 221 (1929)). See also *Utts v. Short*, 45 Tex. Sup. Ct. J. 421 (February 28, 2002) (Owen, J., dissenting) (legislature may change common law by statute, so long as state and federal constitutions not violated). Of course, the courts are the final interpreters of the Constitution. See *Waid v. City of Fort Worth*, 258 S.W. 114 (Tex. Civ. App.—Fort Worth 1923, writ ref'd).

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

On one end of the spectrum, there are cases involving flooding that occurs so infrequently that, as a matter of law, a taking simply and clearly does not result, Cf., Wickham v. San Jacinto River Auth., 979 S.W.2d 876 (Tex. App.—Beaumont 1998, pet. denied). In Wickham, property owners sued SJRA to recover for flood damage sustained after a heavy rainfall. There was dramatic rainfall that caused the Authority to release water from the storage facility into the San Jacinto River, not directly onto the plaintiff's property. The amount of water being released was much less than the amount of rainfall being captured. This water mixed with other downstream water to flood the plaintiff's property. The court held that no taking occurred. The property owners did not prove that preventative measures would have eliminated the flooding entirely, or merely reduced the flooding.

On the other hand, there are those cases which involve flooding of such a continuous nature that the courts have found, perhaps correctly, a constitutional taking to have occurred. For example, in City of Odessa v. Bell, 787 S.W.2d 525 (Tex. App.—El Paso 1990, no writ), the court of appeals affirmed a judgment on the taking issue. Commencing in November 1980, effluent combined with rainwater began reaching and flooding plaintiffs' property, located some fifteen and twenty miles downstream from two treatment plants. The plaintiffs alleged that, from November 1980 through December 1988, various portions of their acreage was flooded a total of nineteen times for periods varying from a few days to as much as 310 days, with the direct and proximate result that they were frequently unable to plant or harvest crops. The jury found that a taking occurred.³ See also Abbott v. City of Kaufman, 717 S.W.2d 927 (Tex. App.—Tyler 1986, writ dismissed) (reversing summary judgment finding no

³ The reported decision does not explain why the jury, and not the judge, decided this question of law and it does not appear that the City challenged this issue on appeal.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

“taking” where substantial part of land “continuously” flooded by sewage water from City treatment plant; other portions of property were no longer accessible).

Takings claims based upon only occasional, or even a single occurrence of, flooding are those which give rise to a concern for the need for legislative action, particularly because judicial application of the common law rule has been so inconsistent and that inconsistency has essentially eliminated the precedential effect of the Supreme Court’s relatively clear holding in Brazos River.

For example, in Golden Harvest Co., Inc. v. City of Dallas, 942 S.W.2d 682 (Tex. App.—Tyler 1997, pet. denied), the court of appeals reversed a summary judgment and allowed the issue of whether a constitutional taking occurred to reach the jury.⁴ The property owner’s claim was based on three floods in three years. In May of 1989, May of 1990, and April of 1991, due to heavy rains, the City released more water from Lake Ray Hubbard than normal, admittedly flooding Golden Harvest’s property and causing damage. Though the court held the city was not liable for the release of water under the Texas Tort Claims Act—because decisions concerning the timing, quantity, and circumstances when water should be released are “discretionary” in nature—the city’s release of an abnormal amount of water in three successive Springs from the dam nonetheless was held to raise fact issues whether a “taking” had occurred.⁵ Arguably,

⁴ Among other things, the court “conclude[d] that Golden Harvest’s summary judgment evidence... raises genuine issues of material fact as to the flooding, and as to whether the City intentionally caused the flooding by failing to pre-release water, thereby taking, damaging or destroying Golden Harvest’s property.” *Id.* at 689-90. The court also found a fact question existed as to “public use,” as required for a “taking.” Again, both holdings, and jury consideration of the question of whether a taking occurred are curious in light of Texas law that holds the “taking” issue is a legal question.

⁵ The Supreme Court may have denied review in *Golden Harvest* because the case had only reached the summary judgment stage and had not been tried on the merits.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

the flooding in Golden Harvest did not occur with sufficient frequency to justify a taking, as contemplated by the Supreme Court in Brazos River.

More troubling, and indicative of more pressing and current concerns, is the recent result in Tarrant County Regional Water District v. Gragg, 43 S.W.3d 609 (Tex. App.—Waco 2001, pet. denied), wherein ranch owners brought an inverse condemnation action against a water district to recover for flooding caused by construction and operation of a reservoir and dam. The court of appeals affirmed a \$10,000,000 award in favor of the property owners based on the conclusion that the inundation of water was greater after the structure was created than before. Notably, however, the opinion does not even identify the exact timing or extent of the flooding which formed the basis of the claim. Rather, the court simply quotes the trial court’s findings that “the construction and operation of the reservoir as designed resulted in repeated, increased flooding of the ranch, both in degree and frequency.” Id. at 623. While not expressly necessary, in light of the holding in Brazos River, it is questionable that the appellate court’s opinion does not detail any of the facts supporting this conclusion. Again, the Supreme Court of Texas has denied review in Gragg, but a motion for rehearing is pending.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

In another case, decided closer in time to Brazos River, the court of appeals held a taking occurred when the property in question flooded on only two occasions. Skeen v. State, 550 S.W.2d 713 (Tex. Civ. App.—El Paso 1977, writ ref'd n.r.e.). The El Paso Court of Appeals reversed a judgment in favor of the State, and rendered judgment in the property owners' favor based on a constitutional taking. The plaintiffs alleged that they had purchased acreage and built a home adjacent to a highway. Subsequent to the plaintiffs' purchase, the State Highway Department elevated the highway, allegedly without providing for adequate drainage, thereby diverting flood waters upon the plaintiffs' property by two floods, one in 1968 and one in 1970. The jury found that the construction of the highway caused the overflow of water onto the plaintiffs' property. Notably, in holding that a taking occurred as a result of only two incidents of flooding during a three year period, the court of appeals cited Brazos River. Id. at 715. In our view, however, temporary flooding of such infrequency as that in Skeen is not what the Supreme Court meant in Brazos River by "repeated," "recurring," or "continuous" flooding.

In contrast to cases like Skeen, Gragg, and Golden Harvest, one court refused to hold a taking occurred where there was no evidence of "inevitably recurring floods." Bennett v. Tarrant County Water Control & Improvement Dist. No. One, 894 S.W.2d 441 (Tex. App.—Fort Worth 1995, writ denied). In Bennett, landowners sued a water district for damages to land encumbered by the district's flowage easements, which permitted the district to occasionally flood the property without incurring liability. The district sold the land to the plaintiffs and reserved the easements in question. With the knowledge of potential flooding, the plaintiffs agreed to the reservation of the easements in exchange for a discounted price. A "taking" did not occur here even though the district intentionally caused water to physically invade the landowner's

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

property, in part because the plaintiffs consented to the taking. However, the court further noted that an important factor in federal takings claims is the frequency, inevitability, and number of times a flood occurs. There was no evidence that there were inevitably recurring floods. Further, the court emphasized that one, two, or even three floods by themselves do not constitute a taking by inverse condemnation.

As these cases demonstrate, the circumstances under which a court will find a taking to have occurred due to the state's intentional acts that result in occasional flooding are neither clear nor consistent. Thus, it is difficult to predict scenarios that will likely give rise to liability. This uncertainty is perhaps magnified when the water authority or other governmental entity is forced into suit in a "hometown" venue. Particularly in small towns, interests of property owners will likely take precedence in the minds of the factfinder, whether judge or jury. Although it is difficult to know, the effect of a local venue may have played an even greater role in the result of Gragg because the judge decided the legal question of whether a taking had occurred. In any event, the "facelessness" of governmental units, particularly water authorities which may have offices a substantial distance from the situs of the flooding, tends to create vulnerability in small, local venues in the same way as bias against out-of-town corporations.

Similar to the effect a "hometown" venue may have on the governmental entity's liability, venue also likely plays a role in high damage awards. However, damages in these types of cases will inherently vary with the circumstances because every parcel of land is unique and the impact of varying degrees of flooding would have a different value in each case. Being a fact question, the amount of damage is also affected by expert testimony. The presence of expert witnesses in flooding cases gives rise to the same issues as any other case involving experts, i.e., concerns about reliability,

relevance, and subjectivity that accompanies both the necessary geography and hydrology issues related to whether a taking has occurred as well as a reasonable market value analysis of the property.

D. Suggestions for legislative action

There are several options which can be considered by the legislature to combat the difficulties and inconsistencies in this area. The most convenient and expeditious manner to effect change is to amend an existing act, the Private Real Property Rights Preservation Act.

1. *Overview of the Private Real Property Rights Preservation Act.*

The legislature has obviously already identified some of these issues in its 1995 passage of the Private Real Property Rights Reservations Act, Texas Government Code Chapter 2007. Chapter 2007 applies to, among other things, governmental actions that “impose a physical invasion of private real property,” which clearly includes inverse condemnation claims arising from temporary flooding. TEX. GOV’T CODE ANN. § 2007.003(a)(2) (Vernon 1995). Also, the act specifically defines what type of governmental action constitutes a “taking.” Section 2007.002 provides:

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

- (A) *A governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or Section 17 or 19, Article I, Texas Constitution; or*
- (B) *a governmental action that:*
 - (i) *affects an owner's private real property that is the subject of the governmental action, in whole or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and*
 - (ii) *is the producing cause of a reduction of at least 25 percent in the market value of the affected private real property, determined by comparing the market value of the property as if the governmental action is not in effect and the market value of the property determined as if the governmental action is in effect.*

Id. at § 2007.002(5).

Additionally, the act specifically waives sovereign immunity to suit and liability, id. at § 2007.004; requires alternative dispute resolution under Civil Practice & Remedies

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

Code, Chapter 154, id. at § 2007.005; and permits a property owner to bring suit under the subchapter to determine whether the governmental action of a political subdivision results in a taking, id. at § 2007.021.

Some other notable features of the Act include the fact that it sets venue for inverse condemnation claims brought under Chapter 2007 in the district court in the county in which some or all of the affected property is located. Id. at § 2007.021(a). Also, the Act specifically provides that the determination whether a governmental action results in a “taking” is a question of fact, not law. Id. at § 2007.023(a). This provision is expressly contrary to Texas common law, which has consistently held that the “taking” question is one of law for the court.⁶ Further, the act provides that if the trier of fact finds that the governmental action in question constitutes a “taking,” the property owner is only entitled to invalidation of the governmental action or the part of the governmental action resulting in the taking. Id. at 2007.023(b). The defendant would not be liable for damages. However, notwithstanding this provision, any final judgment entered by the court in a suit under Chapter 2007 must include a fact finding that determines the monetary damages suffered by the private real property owner as a result of the taking. The governmental entity may then elect to pay damages as compensation to the owner rather than rescind the challenged governmental action. Id. at § 2007.024.

Further, the act provides for permissive—but not mandatory—administrative relief prior to the filing of a lawsuit. Id. at § 2007.022. Specifically, the act states that a property

⁶ It is preferable to statutorily designate the “taking” question as a purely legal inquiry, as the Supreme Court did in *Brazos River*, because judgments would be much more susceptible to appellate review. Juries should not be deciding an issue the Supreme Court has expressly defined as a question of law. Moreover, a jury’s “fact finding” is more difficult to challenge - and for an appellate court to review for error - on appeal.

owner may file a contested case with a state agency to determine whether a governmental action of a state agency results in a taking under the act. Id. at § 2007.022(a). Such an administrative proceeding is governed by Texas Government Code Chapter 2001, except to the extent of any conflict. A party aggrieved by a final order in the administrative process may appeal for judicial review under Chapter 2001, and the appeal is trial de novo.

2. *Suggested amendments to the Private Real Property Rights Preservation Act or Similar Statutory Enactments*

a. *Establish jurisdiction or venue in a single county*

One way to deal with inconsistency and the impact of local venues on decision-making is to legislatively establish one situs for prosecuting an inverse condemnation suit arising out of temporary takings. Travis County has been designated by the legislature as a mandatory venue in many types of cases. See TEX. GOV'T CODE ANN. § 403.201; TEX. ELEC. CODE ANN. § 232.006; TEX. EDUC. CODE ANN. § 43.013; TEX. ALCOHOLIC & BEV. CODE ANN. § 5.17; TEX. AGRIC. CODE ANN. § 161.050. However, there is no legal impediment to designating any county which the legislature finds suited to handling these types of cases.

A possible concern accompanying the designation of mandatory jurisdiction or venue for inverse condemnation claims is the potential for a large volume of cases, including cases that may have a very small value, to overcrowd the docket of a particular county. To allay this concern, the legislature could establish mandatory jurisdiction or venue for cases involving damages over a certain claimed amount. This

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

would be consistent with the federal approach to federal takings cases.

Federal courts have adopted just such an approach in dealing with inverse condemnation claims under the Fifth Amendment to the U.S. Constitution. Claims for damages against the United States fall under the Tucker Act, 28 U.S.C. §§ 1346 and 1491. This act vests concurrent jurisdiction in the United States Court of Federal Claims and the federal district courts over any “claim against the United States, not exceeding \$10,000 in amount founded either upon the Constitution, or any Act of Congress, or any regulation of an executive department, or upon any express or implied contract with the United States.” 28 U.S.C. 1346(a)(2). However, for claims that exceed \$10,000, the Tucker Act vests exclusive jurisdiction in the Court of Claims. 28 U.S.C. § 1491(a); Wilkerson v. United States, 67 F.3d 112, 118 (5th Cir. 1995); Amoco Prod. Co. v. Hodel, 815 F.2d 352, 358 (5th Cir. 1987), cert. denied, 487 U.S. 1234 (1988). In the words of the Fifth Circuit Court of Appeals, it has “consistently refused to allow district courts to adjudicate issues which belong solely to the Court of Claims, even though some other statute conferring jurisdiction would otherwise allow the district court to hear the case.” Wilkerson, 67 F.3d at 118 (holding district court lacked jurisdiction to decide plaintiff’s Fifth Amendment taking claim valued at \$1,146,006). The Court of Claims has exclusive jurisdiction of a Tucker Act claim in excess of \$10,000.

In Texas, both district courts and county courts at law have jurisdiction over eminent domain proceedings. TEX. PROP. CODE ANN. § 21.001 (Vernon 1984). Texas Property Code § 21.013 sets venue for straight condemnation actions. It provides, in part:

§ 21.013. Venue; Fees and Processing for Suit Filed in District Court.

(a) The venue of a condemnation proceeding is the county in which the owner of the property being condemned resides if the owner resides in a county in which part of the property is located. Otherwise, the venue of a condemnation proceeding is any county in which at least part of the property is located.

TEX. PROP. CODE ANN. § 21.003(a) (Vernon Supp. 2002).

Further, Texas Civil Practice & Remedies Code provides:

Actions for recovery of real property or an estate or interest in real property, for partition of real property, to remove encumbrances from the title to real property, for recovery of damages to real property, or to quiet title to real property shall be brought in the county in which all or a part of the property is located.

TEX. CIV. PRAC. & REM. CODE ANN. § 15.011 (Vernon 1985).

Finally, as mentioned above, an inverse condemnation suit under Government Code Chapter 2007 “must be filed in a district court in the county in which the private real property owner’s affected property is located” or “in any county in which the affected property is located.” TEX. GOV’T CODE ANN. § 2007.021.

Here, the Texas Legislature could amend the Texas Property Code or the Texas Government Code to provide that inverse condemnation suits based on temporary takings, and which involve claims for damages above a certain threshold amount, must be brought in the district court of a particular county. This would assure that similar cases are decided in the same venue and, at the same time, allow the more insignificant claims to be resolved at the local level. Such an approach would, in our view, be on solid constitutional ground as it mirrors the approach taken by the federal government. Also, the legislature should expressly state that the amended provisions would control to the extent of any conflict with other jurisdiction or venue statutes.⁷

b. Enunciate a statutory definition of “taking.”

Notably, Government Code Chapter 2007 currently contains some important aspects that can be utilized to combat inconsistency in the adjudication of these claims. For example, the statute specifically defines what constitutes a “taking.” TEX. GOV'T CODE ANN. § 2007.002(5). An owner can show a “taking” in two separate ways: subsection (A) defines “taking” essentially as governmental action that requires compensation under the Constitution; and subsection (B) defines “taking” to mean action that restricts or limits rights to the property and which produces a diminution in value of the land of at least 25%.

While attaching a specific definition to the term “taking” is one potential approach to address inconsistency, in fact § 2007.002(5), as worded, probably does not advance

⁷ For example, Texas Government Code § 25.0635 vests Denton County statutory probate courts with jurisdiction over inverse condemnation suits. Any statutory attempt to establish jurisdiction or venue in one county for inverse condemnation proceedings arising from temporary takings must resolve conflicts with county specific provisions such as § 25.0635.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

that goal very much. This is because subsection (A) simply says that a “taking” is what common law already says it is under the U.S. and Texas Constitutions. Further, an owner cannot establish a “taking” under subsection (B) unless the property value decreases by 25%. No one would ever use subsection (B) as a basis for recovery because claimants can simply rely on the existing common law interpretation of Article I, § 17, as allowed by subsection (A), which does not require any minimum level of diminution in value to recover compensation. Further, a statutory requirement that a property owner show at least a 25% diminution in value to demonstrate a taking may be inconsistent with the “just compensation” part of Article I, section 17. If property is shown to have incurred only a 20% decrease in value due to flooding, then the government is “taking” something without paying for it in contravention of the Constitution.

We believe a better approach would be to define what it means to constitute a taking, or at least identify relevant factors or presumptions to consider in the “taking” determination, that specifically apply to temporary flooding cases. Such factors might focus on the frequency or extent of flooding, or other available or actual uses of the land, rather than setting a minimal level of decrease in value. Further, any amendment could provide that a property owner cannot demonstrate a taking if the complained of facility or action was in place when the land was acquired and the owner knew or should have known of the potential for flooding (and presumably accounted for that contingency in the sale price). For example, in Bennett, the court held there was no taking where the landowners purchased the property knowing of the existence of an easement and received a discounted purchase price. The court held that the owners consented to the flooding and could not recover for a taking.

c. Require exhaustion of administrative remedies.

A preliminary administrative process is another potential method to address the problems related to temporary takings cases. Chapter 2007 allows a property owner to seek administrative relief prior to instituting a lawsuit. TEX. GOV'T CODE ANN. § 2007.023. The shortcoming with § 2007.023 is that it does not make exhaustion of administrative remedies mandatory prior to suing. The better approach would be to amend the act to require property owners who claim damage from temporary flooding to file a contested case with the appropriate state agency, and obtain a final determination, prior to bringing suit. An example could include an administrative review by the TNRCC which is well suited to apply its expertise in evaluating both the cause of the temporary flooding in question as well a reasonable appraisal of damages, if any. This could be easily incorporated into the statute because administrative procedures are already in place. See id. at § 2001.001 et seq. The primary advantage of requiring administrative exhaustion prior to judicial review is that it introduces unbiased expertise on particularly complex areas such as hydrology and, in many cases, both parties may be satisfied with the administrative result, thus obviating the need for the judicial process.

Notably, mandatory administrative exhaustion of remedies is already a part of many statutes in Texas. An administrative process is also a precursor to final relief in straight condemnation cases under the Texas Property Code, Chapter 21.

Some states already require exhaustion of administrative remedies for claims arising from temporary flooding. E.g., Zaluckyj v. Rice Creek Watershed Dist., 639 N.W.2d 70 (Minn. App. 2002) (owner sued for damages from overflow of public ditch).

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

See also Hensler v. City of Glendale, 876 P.2d 1043 (Cal. 1994); Bonge v. County of Madison, 573 N.W.2d 448 (Neb. 1998); Galbraith v. Planning Dep't of City of Anderson, 627 N.E.2d 850 (Ind. App. 2d Dist. 1994). Texas would clearly not be alone in requiring exhaustion of administrative procedures prior to suit and the reasons addressed by states which have already applied such a procedure would substantiate the legislature's consideration of this approach.

d. Make a single, definitive, statute the exclusive, mandatory, remedy for inverse condemnation suits arising from takings claims based upon temporary conditions.

Currently, the provisions of the Private Real Property Rights Preservation Act are neither exclusive nor mandatory, but cumulative of other legal remedies. For a variety of reasons, claimants may have little incentive to utilize this statutory procedure in the vast majority of cases when they can otherwise rely on common law principles embodied in case law interpreting the constitution.⁸

Section 2007.006 should be amended to provide for the exclusive remedy in inverse condemnation suits arising from temporary takings generally, or temporary flood damage cases specifically. The suggested amendment could be as broad or narrow as necessary to cover the problem claims. To ensure consistency, all temporary takings cases should be funneled through Chapter 2007, making it the mandatory vehicle for recovery of damages under article I, § 17 of the Constitution.

⁸ This may explain why the act has not been an issue in any reported cases related to takings based upon temporary flooding since it was passed in 1995. The Act, as currently written, seems to be unlikely to be utilized by any Plaintiff claiming money damages, which are available under the common law cause of action utilized by plaintiffs such as those in *Gragg*.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

e. Restrict or eliminate application of the collateral source rule in these cases.

In addition, some provision should be made for circumstances where the property owner receives insurance for flood damage. Specifically, the statute could be amended to provide that any damages assessed against the governmental entity be offset by any amounts received from private or public insurers, including FEMA. This would preclude the current opportunity for multiple recoveries for the same property damage which, in the case of FEMA benefits, or even flood insurance, would be multiple recovery of public funds.

*The collateral source rule is a purely policy-driven concept that has been incorporated into our civil rules of evidence. See *Brown v. American Transfer & Storage Co.*, 601 S.W.2d 931, 934-35 (Tex. 1980). Many states have modified, or abolished altogether, the collateral source rule in particular types of cases, including suits against governmental entities. James L. Branton, *Symposium: Developments in Tort Law and Tort Reform*, 18 ST. MARY'S L.J. 883, 887-88 (1986). New Jersey and Pennsylvania have abolished the collateral source rule in actions where the government is the defendant. See N.J. STAT. ANN. § 59:9-2 (West 1982); PA. STAT. ANN. tit. 42, § 8553(d) (Purdon 1982). For example, when a plaintiff brings suit against a governmental entity in Pennsylvania, any insurance payments are deducted from the plaintiff's recovery.*

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

E. Conclusion.

In sum, we suggest each of these statutory changes be implemented to address the problems raised in taking cases based upon temporary flooding events. However, any combination of the proposed amendments would, in our view, bring more consistency and predictability into the process.

POPULATION GROWTH / LAND USE - INCREASED VULNERABILITY

The Committee was charged to analyze the effects of population growth and land use along the Texas coast and river basins and how those factors have increased the state's vulnerability to natural disasters.

COAST

With a coastline that stretches several hundred miles and a population that rapidly expanding as evidenced by the 2000 U.S. Census figures (See Table - Page 49), it is an appropriate time for the state to study the effects of growth on the Texas coast and identify the resources it has available. Currently, more than one-quarter of Texas' permanent residents live within the 18 counties that lie adjacent to the Gulf of Mexico.

The Texas State Data Center located at Texas A&M University and headed by the state demographer, Dr. Steve Murdock, has published the 2000 U.S. Census figures and the Data Center's project population for the state of Texas and Texas counties. The table below demonstrates the significant growth that will occur in Texas' coastal counties that makeup TCAT.

Senate Interim Committee on Natural Resources
 Report to the 78th Legislature
 Analysis of State Natural Disaster Efforts

Total Population Projections

Counties	2000	2010	2020	2030	2040
Aransas	22,497	21,990	21,523	20,842	20,313
Brazoria	241,767	260,782	276,288	284,792	286,700
Calhoun	20,647	22,004	23,445	24,736	25,744
Cameron	20,851,820	22,659,748	24,097,979	25,105,442	25,561,581
Chambers	26,031	27,509	28,865	28,876	27,942
Galveston	250,158	261,717	268,507	268,591	262,063
Harris	3,400,578	3,760,922	4,023,922	4,212,739	4,218,687
Jackson	14,391	15,061	15,790	16,209	16,523
Jasper	35,604	36,187	36,567	36,465	36,131
Jefferson	252,051	258,540	262,672	262,308	256,751
Kenedy	414	472	500	527	531
Kleberg	31,549	35,679	38,332	39,958	41,134
Liberty	70,154	74,942	78,893	80,665	81,109
Matagorda	37,957	39,782	41,893	42,963	43,515
Nueces	313,645	338,852	357,796	369,544	373,093
Orange	84,966	88,263	90,415	89,872	87,500
Refugio	7,828	8,217	8,613	8,854	9,171
San Patricio	67,138	74,183	80,950	86,174	90,284
Victoria	84,088	91,092	97,739	102,451	105,497
Willacy	3,400,578	3,760,772	4,023,922	4,212,739	4,281,687

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The State of Texas has several resources available through state entities to address the effects of growth on natural hazard vulnerability. One such entity is the Sustainable Coastal Margins Program (SCMP) located at Texas A&M University which is a multi-college consortium that includes researchers from the College of Geosciences, Architecture, Agriculture and Life Sciences, Liberal Arts, Engineering and the Bush School of Government and Public Service. The consortium of academic resources has the ability to identify, evaluate and research issues related to sustainable development along the coast. The information and data can then be transferred to state leadership and the Legislature to improve the decision-making on natural hazards in the Texas coastal areas.

The General Land Office (GLO) for the State of Texas has within its jurisdiction the Coastal Coordination Council (CCC) that is charged with making uniform goals and policies for decision-making by all entities that regulate or manage natural resources within the Texas coastal area. The CCC administers the Coastal Management Program (CMP) which provides the guidance and standards for the CCC. The CMP works in conjunction with the federal Coastal Zone Management Program to provide federal funding for coastal natural resource activities. The CMP has several funding sources that can be used to address the challenge of reducing vulnerability due to development, including coastal hazard response grant. These grants can be used for emergency management planning and training and community hazard identification and vulnerability analysis which includes updating coastal floodplain mapping. In the context of the response grant program, coastal hazards are events or conditions such as storms and flooding that affect private property and public

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

property and lives. This funding category takes into consideration that coastal hazards are often exacerbated by human-induced impacts such as development. The CMP also includes both federal and state consistency reviews of governmental actions to confirm compliance with the CMP. The CCC should make appropriate changes to its consistency review processes to ensure that governmental entities are taking into consideration the effect of population growth and land use on their activities and the impacts on coastal natural resources.

The 2000 Census figures also demonstrate an increasing Hispanic population along Texas' coast which affects the public awareness and education efforts in dealing with natural disasters. (See Table - Page 52) Governmental entities at every level that operate in Texas should attempt to publish information in both English and Spanish to enable as many citizens as possible to receive the proper warnings and understand the appropriate actions that must be taken to survive a natural disaster. The table below illustrates the growth of the Hispanic population in Texas' coastal counties.

Senate Interim Committee on Natural Resources
 Report to the 78th Legislature
 Analysis of State Natural Disaster Efforts

Projected Hispanic Population in Coastal Counties

Counties	2000	2020	2040
Aransas	4,571	5,837	6,658
Brazoria	55,063	73,305	86,174
Calhoun	8,448	11,348	14,158
Cameron	282,736	404,989	527,871
Chambers	2,810	3,834	4,273
Galveston	44,939	57,113	65,202
Harris	1,119,751	1,595,064	2,011,747
Jackson	3,551	4,915	5,892
Jasper	1,384	1,985	2,421
Jefferson	26,536	34,363	41,015
Kenedy	327	417	470
Kleberg	20,635	25,880	28,562
Liberty	7,660	10,981	13,587
Matagorda	11,898	15,767	18,588
Nueces	174,951	218,388	245,249
Orange	3,073	3,996	4,392
Refugio	3,490	4,466	5,307
San Patricio	33,181	43,801	52,725
Victoria	32,959	44,680	54,206
Willacy	17,209	22,117	26,707

RIVER BASINS

The state of Texas' population growth is clearly evident along the state's river basins as more individuals locate their residences and businesses along Texas' rivers. New 2000 census figures for the state of Texas are evidence of the movement of more people into Texas' river basins. While rapid growth challenges state and local governmental bodies in their efforts to prevent the loss of life and property, the traditional methods of addressing river basin flooding have focused on structures to control flooding. Many communities and governmental entities constructed dams, levees or made changes to channels to alleviate flooding problems. The levee system has been successful in saving lives and property but it has encouraged inappropriate development along floodplains.

FEMA, through the NFIP, has adopted a philosophy of encouraging development through elevation of residential structures or flood proofing of nonresidential structures. FEMA does not believe that wholesale condemnation of land identified as flood prone is the answer and stresses that dedicating such land as green belts, parks or golf courses are viable options.

The NFIP plays a role in the development that occurs along Texas' river basins. When a community adopts a resolution or floodplain management ordinance / court order, the community must institute a building permit system as part of the process to participate in the NFIP. If the provisions of the NFIP are strictly enforced, then communities should be able to control unwise development. But limited resources

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

for the state office of the NFIP has made enforcement often difficult. The TNRCC also has access to up to \$20,000 made available by FEMA through the Increased Cost of Compliance Program which may be used to implement structural improvements, such as elevating and relocating.

Regional governmental entities, such as surface water authorities, should also be involved in finding solutions to the challenge of increased population and development. Surface water authorities should assist their local communities in the identification of structures located in the floodplain and the proper mechanisms to ensure proper development. One surface water authority that has become involved in floodplain management is the LCRA who helped form and provides facilities for the Coalition. The Coalition, through a U.S. Army Corp of Engineers study, has discovered that the number of structures located in the floodplain in the Highland Lakes area has increased by 180% during the last 10 years. Another regional flood management program is being formed in the Bexar County area which will include the City of San Antonio, Bexar County, the San Antonio River Authority, a citizen committee, and over 20 suburban cities.

State and local governmental entities must also consider ways to educate and inform their Spanish-speaking community members of the dangers of flooding. With the Hispanic population in the counties that are located in river basins showing tremendous growth, the need for public awareness efforts in both English and Spanish will only grow more important to keep all Texas' citizens safe.

RECOMMENDATIONS

In addition to the recommendations presented in this report, the Senate Natural Resources Committee encourages all interested legislators and parties to closely inspect the Blue Ribbon Committee Study that was published in January, 2001 as required by the passage of SCR 68 during the 76th Legislature. The Blue Ribbon Committee Study is a comprehensive analysis of natural disaster events and includes recommendations that would have a meaningful impact on statewide efforts to confront natural disasters.

Based on its findings, the Committee has the following recommendations:

General

1. Identify overlapping priorities and resources that can be shared with homeland security efforts as identified by the recommendations produced by the Governor's Task Force on Homeland Security. Examples include:

A. Requiring cell phone companies to provide portable cell phone towers that can be used in the event of man-made and natural disasters.

B. Increased funding for DEM to add additional FTEs to better respond and train local governmental officials. Many training exercises scheduled by DEM personnel must be cancelled when a natural disaster occurs and DEM personnel are needed to be in the field assisting in the response efforts.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

2. Dedicate more funding and personnel to DEM, and, specifically, to the areas that address natural disasters. DEM is understaffed compared to emergency management offices in other states with comparable population numbers.

3. Create a statewide mutual aid compact which will allow local governments to share resources with neighboring governmental entities when the need arises. The state could create a compact based on the national Emergency Management Assistance Compact to allow local governments to join the compact with a single act of its governing body instead of having to enter into multiple agreements as the current system allows. The statewide mutual aid compact would address issues such as workers compensation, liability, and compensation that are not currently addressed by many mutual aid agreements.

4. Create a state disaster contingency fund that will fill the void for disasters that do not meet criteria of a Presidential Disaster Declaration. Most natural disaster events do not reach the \$22 million damage-incurred threshold that must be met but yet local communities must respond to such events and struggle to find the funds necessary for such efforts.

5. Increased use of the state's public institutions of higher education by emergency management officials to supplement and improve the efforts to prepare for and respond to natural disasters. The State of Texas has several entities, such as the HRRC at Texas A&M University and the Bureau of Economic Geology at the University of Texas at Austin, that currently provide such services and have the capacity to expand their assistance. In addition, federal research and emergency

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

management dollars should be identified that can be maximized by institutions of higher education within the state of Texas.

6. Encourage more individuals to obtain Certified Emergency Management status to improve disaster response efforts. Increase funding for state entities to provide more training and provide incentives for local governmental entities and private associations to provide additional training.

7. Request that DEM produce a compilation of all federal funding sources currently available that require state matching funds to increase awareness among state leadership of the funding available to be obtained.

8. Work with cell phone companies to provide their customers with text messages that provide severe weather notifications and emergency management information.

9. Provide additional funding and encourage governmental entities on every level to increase the use of Spanish in their publications and public awareness campaigns in response to natural disaster events.

Hurricanes / Coastal Issues

1. Increase the use of the Evacuation Traffic Information System (ETIS) software at TxDOT which is able to track evacuation traffic flow and will be able to interface with HURREVAC.

2. Encourage the use of lane reversals for major highway systems to expedite the evacuation of major centers of population. Lane reversals have been successfully implemented for IH-37 which connects Corpus Christi and San Antonio.

3. Re-file SB 1203 from the 77th Legislative Session which would have recreated a Coastal Hazard Reduction and Recovery Annex to the State Emergency Management Plan.

Floodplain Management

1. Create a new state agency to consolidate the state's flood mitigation efforts. The new agency would focus the appropriate attention and resources towards a problem that could save thousands of lives and millions of dollars in property damage. If a new state agency is not feasible, then consolidate the existing state employees involved in flood mitigation into one division of an existing state agency, such as the Texas Water Development Board (TWDB). With TNRIS and its mapping capabilities already available at the TWDB, important resources and information can be shared and disseminated to local governmental entities throughout the state. A consolidation would impact the following state agencies and employees:

<u>Agency</u>	<u>Program</u>	<u>Number of staff</u>
DPS/DEM	Hazard Mitigation Grant Program/Other Mitig. Activities	5
TWDB	Flood Mitigation Assistance Program	1
TNRCC	Floodplain Management / NFIP	2

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

The efforts of a consolidated flood mitigation entity could be funded by directly appropriating the \$2.15 million in fees from the sale of federal flood insurance policies that is currently collected by the Texas Department of Insurance and put into the state's General Revenue Fund. FEMA has questioned on several occasions why a fee that is collected from federal flood insurance policies is not being used towards the state's floodplain management program.

2. Create a statewide planning process for floodplain management using the successful model of statewide planning found in SB 1 from the 76th Legislature. Use a regional, multi-jurisdictional approach to floodplain management that is actively encouraged by FEMA with surface water authorities providing administrative support. The regional plans would be compiled by a state agency, such as TWDB, which has a history of using a statewide planning process.

3. Make appropriate statutory changes to allow the Texas Water Advisory Council (TWAC) to require surface water authorities to report on their floodplain management efforts as part of the self-assessment report that the authorities are mandated to provide to the TWAC every five years.

Flood Liability

As previously stated, members of the Senate Natural Resources Committee (Committee) at a February, 2002 committee hearing requested that the Texas Water Conservation Association Risk Management Fund prepare and submit a memo that would provide both a historical background and an analysis of the issue of flood liability as well as offer some possible adjustments that could address the problems that exist. The Committee takes no position on the proposals detailed in the memo provided to the Committee. In addition, strong opposition and concern exists among some committee members regarding the changes proposed by the memo.

The Texas Water Conservation Association Risk Management Fund suggested the following:

1. Establish jurisdiction or venue in a single county. One way to deal with inconsistency and the impact of local venues on decision-making is to legislatively establish one situs for prosecuting an inverse condemnation suit arising out of temporary takings. Travis County has been designated by the legislature as a mandatory venue in many types of cases. However, there is no legal impediment to designating any county which the legislature finds suited to handling these types of cases. Federal courts have adopted just such an approach in dealing with federal inverse condemnation claims.

2. Enunciate a statutory definition of “taking”. Define what it means to constitute a taking, or at least identify relevant factors or presumptions to consider in the “taking” determination, that specifically apply to temporary flooding cases. Such factors might focus on the frequency or extent of flooding, or other available or actual uses of the land, rather than setting a minimal level of decrease in value. Further, any amendment could provide that a property owner cannot demonstrate a taking if the complained of facility or action was in place when the land was acquired and the owner knew or should have known of the potential for flooding (and presumably accounted for that contingency in the sale price).

3. Require exhaustion of administrative remedies. A preliminary administrative process is another potential method to address the problems related to temporary takings cases. An example could include an administrative review by the TNRCC which is well suited to apply its expertise in evaluating both the cause of the temporary flooding in question as well a reasonable appraisal of damages, if any. The primary advantage of requiring administrative exhaustion prior to judicial review is that it introduces unbiased expertise on particularly complex areas such as hydrology and, in many cases, both parties may be satisfied with the administrative result, thus obviating the need for the judicial process. Some states already require exhaustion of administrative remedies for claims arising from temporary flooding.

4. Make a single, definitive, statute the exclusive, mandatory, remedy for inverse condemnation suits arising from takings claims based upon temporary conditions. To ensure consistency, all temporary takings cases should be funneled through a single, definitive, statute which addresses the peculiar issues related to these types of claims, making it the mandatory vehicle for recovery of damages under article I, § 17 of the Constitution.

5. Restrict or eliminate application of the collateral source rule in these cases. Some provision should be made for circumstances where the property owner receives insurance for flood damage. Specifically, the statute could be amended to provide that any damages assessed against the governmental entity be offset by any amounts received from private or public insurers, including FEMA. This would preclude the current opportunity for multiple recoveries for the same property damage which, in the case of FEMA benefits, or even flood insurance, would be multiple recovery of public funds. Notably, the collateral source rule is a purely policy-driven concept that has been incorporated into our civil rules of evidence. Accordingly, many states have modified, or abolished altogether, the collateral source rule in particular types of cases, including suits against governmental entities.

Senate Interim Committee on Natural Resources
Report to the 78th Legislature
Analysis of State Natural Disaster Efforts

APPENDICES

Appendix A

CHAPTER 418. EMERGENCY MANAGEMENT

SUBCHAPTER A. GENERAL PROVISIONS

§ 418.001. Short Title

This chapter may be cited as the Texas Disaster Act of 1975.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.002. Purposes

The purposes of this chapter are to:

(1) reduce vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary action;

(2) prepare for prompt and efficient rescue, care, and treatment of persons victimized or threatened by disaster;

(3) provide a setting conducive to the rapid and orderly restoration and rehabilitation of persons and property affected by disasters;

(4) clarify and strengthen the roles of the governor, state agencies, and local governments in prevention of, preparation for, response to, and recovery from disasters;

(5) authorize and provide for cooperation in disaster mitigation, preparedness, response, and recovery;

(6) authorize and provide for coordination of activities relating to disaster mitigation, preparedness, response, and recovery by agencies and officers of this state, and similar state-local, interstate, federal-state, and foreign activities in which the state and its political subdivisions may participate;

(7) provide an emergency management system embodying all aspects of predisaster preparedness and postdisaster response;

(8) assist in mitigation of disasters caused or aggravated by inadequate planning for and regulation of public and private facilities and land use; and

(9) provide the authority and mechanism to respond to an energy emergency.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by

Acts 1997, 75th Leg., ch. 992, § 1, eff. Sept. 1, 1997.

§ 418.003. Limitations

This chapter does not:

(1) limit the governor's authority to apply for, administer, or expend any grant, gift, or payment in aid of disaster mitigation, preparedness, response, or recovery;

(2) interfere with the course or conduct of a labor dispute, except that actions otherwise authorized by this chapter or other laws may be taken when necessary to forestall or mitigate imminent or existing danger to public health or safety;

(3) interfere with dissemination of news or comment on public affairs, but any communications facility or organization, including radio and television stations, wire services, and newspapers, may be required to transmit or print public service messages furnishing information or instructions in connection with a disaster or potential disaster;

(4) affect the jurisdiction or responsibilities of police forces, fire-fighting forces, units of the armed forces of the United States, or of any of their personnel when on active duty, but state, local, and interjurisdictional emergency management plans shall place reliance on the forces available for performance of functions related to disasters; or

(5) limit, modify, or abridge the authority of the governor to proclaim martial law or exercise any other powers vested in the governor under the constitution or laws of this state independent of or in conjunction with any provisions of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 1, eff. Sept. 1, 1997.

§ 418.004. Definitions

In this chapter:

(1) "Disaster" means the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause, including fire, flood, earthquake, wind, storm, wave action, oil spill or other water contamination, volcanic activity, epidemic, air contamination, blight, drought, infestation, explosion, riot, hostile military or paramilitary action, other public calamity requiring emergency action, or energy emergency.

(2) "Division" means the division of emergency management in the office of the governor.

(3) "Energy emergency" means a temporary statewide, regional, or local shortage of petroleum or liquid fuels energy supplies that makes emergency measures necessary to reduce demand or allocate supply.

(4) "Interjurisdictional agency" means a disaster agency maintained by and serving more than one political subdivision.

(5) "Organized volunteer group" means an organization such as the American National Red Cross, the Salvation Army, the Civil Air Patrol, the Radio Amateur Civil Emergency Services, a volunteer fire department, a volunteer rescue squad, or other similar organization recognized by federal or state statute, regulation, or memorandum.

(6) "Political subdivision" means a county or incorporated city.

(7) "Temporary housing" has the meaning assigned by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288, as amended.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1995, 74th Leg., ch. 497, § 1, eff. June 12, 1995; Acts 1997, 75th Leg., ch. 992, § 2, eff. Sept. 1, 1997.

SUBCHAPTER B. POWERS AND DUTIES OF GOVERNOR

§ 418.011. Responsibility of Governor

The governor is responsible for meeting:

- (1) the dangers to the state and people presented by disasters; and
- (2) disruptions to the state and people caused by energy emergencies.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.012. Executive Orders

Under this chapter, the governor may issue executive orders, proclamations, and regulations and amend or rescind them. Executive orders, proclamations, and regulations have the force and effect of law.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.013. Emergency Management Council

(a) The governor by executive order may establish an emergency management council to advise and assist the governor in all matters relating to disaster mitigation, preparedness, response, and recovery.

(b) The emergency management council is composed of the heads of state agencies, boards, and commissions and representatives of organized volunteer groups.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 3, eff. Sept. 1, 1997.

§ 418.014. Declaration of State of Disaster

(a) The governor by executive order or proclamation may declare a state of disaster if the governor finds a disaster has occurred or that the occurrence or threat of disaster is imminent.

(b) Except as provided by Subsection (c), the state of disaster continues until the governor:

(1) finds that:

(A) the threat or danger has passed; or

(B) the disaster has been dealt with to the extent that emergency conditions no longer exist; and

(2) terminates the state of disaster by executive order.

(c) A state of disaster may not continue for more than 30 days unless renewed by the governor. The legislature by law may terminate a state of disaster at any time. On termination by the legislature, the governor shall issue an executive order ending the state of disaster.

(d) An executive order or proclamation issued under this section must include:

(1) a description of the nature of the disaster;

(2) a designation of the area threatened; and

(3) a description of the conditions that have brought the state of disaster about or made possible the termination of the state of disaster.

(e) An executive order or proclamation shall be disseminated promptly

by means intended to bring its contents to the attention of the general public. An order or proclamation shall be filed promptly with the division of emergency management, the secretary of state, and the county clerk or city secretary in each area to which it applies unless the circumstances attendant on the disaster prevent or impede the filing.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.015. Effect of Disaster Declaration

(a) An executive order or proclamation declaring a state of disaster:

(1) activates the disaster recovery and rehabilitation aspects of the state emergency management plan applicable to the area subject to the declaration; and

(2) authorizes the deployment and use of any forces to which the plan applies and the use or distribution of any supplies, equipment, and materials or facilities assembled, stockpiled, or arranged to be made available under this chapter or other law relating to disasters.

(b) The preparedness and response aspects of the state emergency management plan are activated as provided by that plan.

(c) During a state of disaster and the following recovery period, the governor is the commander in chief of state agencies, boards, and commissions having emergency responsibilities. To the greatest extent possible, the governor shall delegate or assign command authority by prior arrangement embodied in appropriate executive orders or plans, but this chapter does not restrict the governor's authority to do so by orders issued at the time of the disaster.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.016. Suspension of Procedural Laws and Rules

The governor may suspend the provisions of any regulatory statute prescribing the procedures for conduct of state business or the orders or rules of a state agency if strict compliance with the provisions, orders, or rules would in any way prevent, hinder, or delay necessary action in coping with a disaster.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.017. Use of Public and Private Resources

(a) The governor may use all available resources of state government and of political subdivisions that are reasonably necessary to cope

with a disaster.

(b) The governor may temporarily reassign resources, personnel, or functions of state executive departments and agencies or their units for the purpose of performing or facilitating emergency services.

(c) The governor may commandeer or use any private property if the governor finds it necessary to cope with a disaster, subject to the compensation requirements of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.018. Movement of People

(a) The governor may recommend the evacuation of all or part of the population from a stricken or threatened area in the state if the governor considers the action necessary for the preservation of life or other disaster mitigation, response, or recovery.

(b) The governor may prescribe routes, modes of transportation, and destinations in connection with an evacuation.

(c) The governor may control ingress and egress to and from a disaster area and the movement of persons and the occupancy of premises in the area.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.019. Restricted Sale and Transportation of Materials

The governor may suspend or limit the sale, dispensing, or transportation of alcoholic beverages, firearms, explosives, and combustibles.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.020. Temporary Housing

(a) The governor may enter into purchase, lease, or other arrangements with an agency of the United States for temporary housing units to be occupied by disaster victims and may make units available to any political subdivision.

(b) The governor may assist a political subdivision that is the locus of temporary housing for disaster victims to acquire sites necessary for temporary housing and to do all things required to prepare the sites to receive and use temporary housing units by:

(1) advancing or lending funds available to the governor from any

appropriation made by the legislature or from any other source;

(2) allocating funds made available by a public or private agency; or

(3) becoming a copartner with the political subdivision for the execution and performance of any temporary housing project for disaster victims.

(c) Under regulations prescribed by the governor, the governor may temporarily suspend or modify for a period of not more than 60 days any public health, safety, zoning, intrastate transportation, or other law or regulation if by proclamation the governor considers the suspension or modification essential to provide temporary housing for disaster victims.

(d) Any political subdivision may temporarily or permanently acquire by lease, purchase, or other means sites required for installation of temporary housing units for disaster victims and may enter into arrangements necessary to prepare or equip the sites to use the housing units, including arrangements for the purchase of temporary housing units and the payment of transportation charges.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.021. Federal Aid for Local Government

(a) On the governor's determination that a local government of the state has suffered or will suffer a substantial loss of tax and other revenue from a major disaster and has demonstrated a need for financial assistance to perform its governmental functions, the governor may apply to the federal government on behalf of the local government for a loan and may receive and disburse the proceeds of an approved loan to the local government.

(b) The governor may determine the amount needed by a local government to restore or resume its governmental functions and certify that amount to the federal government. The amount sought for the local government may not exceed 25 percent of the annual operating budget of the local government for the fiscal year in which the major disaster occurs.

(c) The governor may recommend to the federal government, based on the governor's review, the cancellation of all or part of repayment if in the first three full fiscal years following the major disaster the revenues of the local government are insufficient to meet its operating expenses, including additional disaster-related expenses of a municipal operation character.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.022. Aid for Individuals

(a) On the governor's determination that financial assistance is essential to meet disaster-related necessary expenses or serious needs of individuals or families adversely affected by a major disaster that cannot be otherwise adequately met from other means of assistance, the governor may accept a grant by the federal government to fund the financial assistance, subject to the terms and conditions imposed on the grant. The governor may agree with the federal government or any officer or agency of the United States pledging the state to participate in funding not more than 25 percent of the financial assistance.

(b) The governor may make financial grants to meet disaster-related necessary expenses or serious needs of individuals or families adversely affected by a major disaster that cannot otherwise adequately be met from other means of assistance. The grants may not exceed an aggregate amount in excess of that established by federal statute for an individual or family in any single major disaster declared by the president of the United States.

(c) The governor may designate in the state emergency management plan the Department of Human Services or another state agency to carry out the functions of providing financial aid to individuals or families qualified for disaster relief. The designated agency may employ temporary personnel for those functions to be paid from funds appropriated to the agency, from federal funds, or from the disaster contingency fund. The merit system does not apply to the temporary positions. The governor may allocate funds appropriated under this chapter to implement the purposes of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.023. Clearance of Debris

(a) Through the use of any state agency or instrumentality, the governor, acting through members of the Emergency Management Council, may clear or remove debris or wreckage from public or private land or water if it threatens public health or safety or public or private property in a state of disaster declared by the governor or major disaster declared by the president of the United States.

(b) The governor may accept funds from the federal government and use the funds to make grants to a local government for the purpose of removing debris or wreckage from public or private land or water.

(c) Debris or wreckage may not be removed from public or private property until the affected local government, corporation,

organization, or individual presents to the governor or member of the Emergency Management Council an unconditional authorization for removal. Debris or wreckage may not be removed from private property until the state is indemnified against any claim arising from removal. In instances where it is not practical and further delay would create a greater risk to public health or safety, the governor, acting through the Emergency Management Council, may remove debris or wreckage from public or private property without an unconditional authorization or indemnification.

(d) If the governor provides for clearance of debris or wreckage under this chapter, state employees or other individuals acting by authority of the governor may enter on private land or water to perform tasks necessary to the removal or clearance operation. Except in cases of wilful misconduct, gross negligence, or bad faith, a state employee or agent performing his duties while complying with orders of the governor issued under this chapter is not liable for the death of or injury to a person or for damage to property.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 4, eff. Sept. 1, 1997.

§ 418.024. Rules

The governor may adopt rules necessary for carrying out the purposes of this chapter, including rules on:

- (1) standards of eligibility for persons applying for benefits;
- (2) procedures for applying for benefits;
- (3) procedures for the administration, investigation, filing, and approval of applications for benefits;
- (4) procedures for the formation of local or statewide boards to pass on applications for benefits; and
- (5) procedures for appeals of decisions relating to applications for benefits.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

SUBCHAPTER C. DIVISION OF EMERGENCY MANAGEMENT

§ 418.041. Organization

(a) The division of emergency management is a division of the office of the governor.

(b) The division is managed by a director appointed by the governor. The director serves at the pleasure of the governor.

(c) The director shall appoint a state coordinator.

(d) The division shall employ other coordinating and planning officers and other professional, technical, secretarial, and clerical personnel necessary to the performance of its functions.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.042. State Emergency Management Plan

(a) The division shall prepare and keep current a comprehensive state emergency management plan. The plan may include:

(1) provisions for prevention and minimization of injury and damage caused by disaster;

(2) provisions for prompt and effective response to disaster;

(3) provisions for emergency relief;

(4) provisions for energy emergencies;

(5) identification of areas particularly vulnerable to disasters;

(6) recommendations for zoning, building restrictions, and other land-use controls, safety measures for securing mobile homes or other nonpermanent or semipermanent structures, and other preventive and preparedness measures designed to eliminate or reduce disasters or their impact;

(7) provisions for assistance to local officials in designing local emergency management plans;

(8) authorization and procedures for the erection or other construction of temporary works designed to protect against or mitigate danger, damage, or loss from flood, fire, or other disaster;

(9) preparation and distribution to the appropriate state and local officials of state catalogs of federal, state, and private assistance programs;

(10) organization of manpower and channels of assistance;

(11) coordination of federal, state, and local emergency management activities;

(12) coordination of the state emergency management plan with the emergency management plans of the federal government;

(13) coordination of federal and state energy emergency plans; and

(14) other necessary matters relating to disasters.

(b) In preparing and revising the state emergency management plan, the division shall seek the advice and assistance of local government, business, labor, industry, agriculture, civic organizations, volunteer organizations, and community leaders.

(c) All or part of the state emergency management plan may be incorporated into regulations of the division or executive orders that have the force and effect of law.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.043. Other Powers and Duties

The division shall:

(1) determine requirements of the state and its political subdivisions for food, clothing, and other necessities in event of a disaster;

(2) procure and position supplies, medicines, materials, and equipment;

(3) adopt standards and requirements for local and interjurisdictional emergency management plans;

(4) periodically review local and interjurisdictional emergency management plans;

(5) coordinate deployment of mobile support units;

(6) establish and operate training programs and programs of public information or assist political subdivisions and emergency management agencies to establish and operate the programs;

(7) make surveys of public and private industries, resources, and facilities in the state that are necessary to carry out the purposes of this chapter;

(8) plan and make arrangements for the availability and use of any private facilities, services, and property and provide for payment for use under terms and conditions agreed on if the facilities are used and payment is necessary;

(9) establish a register of persons with types of training and skills important in disaster mitigation, preparedness, response, and recovery;

(10) establish a register of mobile and construction equipment and temporary housing available for use in a disaster;

(11) prepare, for issuance by the governor, executive orders and regulations necessary or appropriate in coping with disasters;

(12) cooperate with the federal government and any public or private agency or entity in achieving any purpose of this chapter and in implementing programs for disaster mitigation, preparation, response, and recovery; and

(13) do other things necessary, incidental, or appropriate for the implementation of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 5, eff. Sept. 1, 1997.

§ 418.044. Assistance in Development of Local Plans

(a) The division shall take an integral part in the development and revision of local and interjurisdictional emergency management plans. For that purpose, the division shall employ or otherwise secure the services of professional and technical personnel capable of providing expert assistance to political subdivisions and emergency management agencies. Those personnel shall consult with the subdivisions and agencies on a regularly scheduled basis and shall make field reviews of the areas, circumstances, and conditions to which particular local and interjurisdictional emergency management plans apply and may suggest revisions.

(b) The division shall encourage local and interjurisdictional agencies to seek advice from local government, business, labor, industry, agriculture, civic organizations, volunteer organizations, and community leaders.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 6, eff. Sept. 1, 1997.

§ 418.045. Temporary Personnel

The division may employ or contract with temporary personnel from funds appropriated to the division, from federal funds, or from the disaster contingency fund. The merit system does not apply to the temporary or contract positions.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 7, eff. Sept. 1, 1997.

§ 418.046. Assistance to Aviators

(a) The division may provide assistance to private aviators, including partial reimbursement for funds expended, to meet the actual costs of aircraft operation in performing search, rescue, or disaster-related functions requested by the governor or the governor's designee.

(b) Any reimbursement must be limited to the actual cost of aircraft operation not reimbursable from other sources.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.0461. Assistance to Civil Air Patrol

The division may provide financial assistance to the Civil Air Patrol, Texas Wing, to support the wing's disaster-related activities that assist the state and state agencies and the wing's training and exercises associated with those activities.

Added by Acts 1995, 74th Leg., ch. 889, § 1, eff. Aug. 28, 1995.

§ 418.047. Communications

(a) In cooperation with other state agencies, the division shall ascertain what means exist for rapid and efficient communication in times of disaster.

(b) The division shall consider the desirability of supplementing the communication resources or integrating them into a state or state-federal telecommunication or other communication system or network.

(c) In studying the character and feasibility of any system or its parts, the division shall evaluate the possibility of its multipurpose use for general state and local governmental purposes.

(d) The division shall make recommendations to the governor as appropriate.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.048. Monitoring Weather; Suspension of Weather Modification

(a) The division shall keep continuously apprised of weather conditions that present danger of climatic activity, such as

precipitation, severe enough to constitute a disaster.

(b) If the division determines that precipitation that may result from weather modification operations, either by itself or in conjunction with other precipitation or climatic conditions or activity, would create or contribute to the severity of a disaster, it shall request in the name of the governor that the officer or agency empowered to issue permits for weather modification operations suspend the issuance of permits. On the governor's request, no permits may be issued until the division informs the officer or agency that the danger has passed.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

SUBCHAPTER D. FINANCE

§ 418.071. State Policy

It is the intent of the legislature and the policy of the state that funds to meet disaster emergencies always be available.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.072. Disaster Emergency Funding Board

The disaster emergency funding board is composed of:

- (1) the governor;
- (2) the lieutenant governor;
- (3) the commissioner of insurance;
- (4) the commissioner of the Department of Human Services; and
- (5) the director of the division.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 8, eff. Sept. 1, 1997.

§ 418.073. Disaster Contingency Fund

(a) The disaster contingency fund consists of money appropriated to the fund.

(b) If the governor finds that the demands placed on funds regularly appropriated to state and local agencies are unreasonably great for coping with a particular disaster, the governor with the concurrence of the disaster emergency funding board may make funds available from

the disaster contingency fund. It is the intent of the legislature that first recourse be to the funds regularly appropriated to state and local agencies.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.074. Acceptance and Allocation of Gifts and Grants

(a) If the federal government, another public or private agency, or an individual offers to the state or through the state to a political subdivision services, equipment, supplies, materials, or funds as a gift, grant, or loan for purposes of emergency services or disaster recovery, the governor (if required by the donor) or the presiding officer of the governing body of the political subdivision may accept the offer on behalf of the state or political subdivision, as applicable.

(b) If a gift, grant, or loan is accepted by the state, the governor, or the emergency management council or state coordinator if designated by the governor, may dispense the gift, grant, or loan directly to accomplish the purpose for which it was made or may allocate and transfer to a political subdivision services, equipment, supplies, materials, or funds in the amount the governor or the governor's designee may determine.

(c) Funds received by the state shall be placed in one or more special funds and shall be disbursed by warrants issued by the comptroller on order of the governor or the governor's designee. The governor shall name the designee in a written agreement accepting the funds or in a written authorization filed with the secretary of state. On receipt of an order for disbursement, the comptroller shall issue a warrant without delay.

(d) If the funds are to be used for purchase of equipment, supplies, or commodities of any kind, it is not necessary that bids be obtained or that the purchases be approved by any other agency.

(e) A political subdivision may accept and use all services, equipment, supplies, materials, and funds to the full extent authorized by the agreement under which they are received by the state or political subdivision.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

SUBCHAPTER E. LOCAL AND INTERJURISDICTIONAL EMERGENCY MANAGEMENT

§ 418.101. All Political Subdivisions Served

(a) Each political subdivision is within the jurisdiction of and

served by the division and by a local or interjurisdictional agency responsible for disaster preparedness and coordination of response.

(b) The presiding officer of the governing body of each political subdivision shall notify the division of the manner in which the political subdivision is providing or securing an emergency management program, identify the person who heads the agency responsible for the program, and furnish additional pertinent information that the division requires. The person so designated shall accomplish training prescribed by the division.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 9, eff. Sept. 1, 1997.

§ 418.102. County Programs

(a) Each county shall maintain an emergency management program or participate in a local or interjurisdictional emergency management program that, except as otherwise provided by this chapter, has jurisdiction over and serves the entire county or interjurisdictional area.

(b) The county program is the first channel through which a municipal corporation shall request assistance when its resources are exceeded. Requests that exceed the county capability shall be forwarded to the state as prescribed in the state emergency management plan.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 10, eff. Sept. 1, 1997.

§ 418.103. Municipal Programs

(a) The governor shall determine which municipal corporations need emergency management programs of their own and shall recommend that they be established and maintained. The governor shall make the determinations on the basis of the municipality's disaster vulnerability and capability of response related to population size and concentration.

(b) The emergency management program of a county must be coordinated with the emergency management programs of municipalities situated in the county but does not apply in a municipality having its own emergency management program.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.104. Interjurisdictional Programs

The governor may recommend that a political subdivision establish and

maintain a program and form an interjurisdictional agency jointly with one or more other political subdivisions if the governor finds that the establishment and maintenance of a joint program or participation in it is made necessary by circumstances or conditions that make it unusually difficult to provide disaster mitigation, preparedness, response, or recovery services under other provisions of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 10, eff. Sept. 1, 1997.

§ 418.105. Liaison Officers

(a) Each city that does not have a program and has not made arrangements to secure or participate in the services of an existing program shall designate a liaison officer to facilitate the cooperation and protection of the city in the work of disaster mitigation, preparedness, response, and recovery.

(b) Each county shall provide an office and a liaison officer to coordinate with state and federal emergency management personnel concerning disaster mitigation, preparedness, response, and recovery activities under other provisions of this chapter.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 10, eff. Sept. 1, 1997.

§ 418.106. Local and Interjurisdictional Emergency Management Plans

(a) Each local and interjurisdictional agency shall prepare and keep current an emergency management plan for its area providing for disaster mitigation, preparedness, response, and recovery.

(b) The plan must provide for:

(1) wage, price, and rent controls and other economic stabilization methods in the event of a disaster; and

(2) curfews, blockades, and limitations on utility use in an area affected by a disaster, rules governing entrance to and exit from the affected area, and other security measures.

(c) The local or interjurisdictional emergency management agency shall prepare in written form and distribute to all appropriate officials a clear and complete statement of the disaster responsibilities of all local agencies and officials and of the disaster channels of assistance.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by

Acts 1997, 75th Leg., ch. 992, § 11, eff. Sept. 1, 1997.

§ 418.107. Local Finance

(a) A political subdivision may make appropriations for emergency management services as provided by law for making appropriations for ordinary expenses.

(b) Political subdivisions may make agreements for the purpose of organizing emergency management service divisions and provide for a mutual method of financing the organization of units on a basis satisfactory to the subdivisions. The functioning of the units shall be coordinated by the emergency management council.

(c) A political subdivision may render aid to other subdivisions under mutual aid agreements.

(d) A political subdivision may issue time warrants for the payment of the cost of any equipment, construction, acquisition, or any improvements for carrying out this chapter. The warrants shall be issued in accordance with Chapter 252, Local Government Code, in the case of a municipality, or Subchapter C, Chapter 262, Local Government Code, in the case of a county. Time warrants issued for financing permanent construction or improvement for emergency management purposes are subject to the right of the voters to require a referendum vote under Section 252.045 or 262.029, Local Government Code, as applicable.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

Amended by Acts 1999, 76th Leg., ch. 1064, § 30, eff. Sept. 1, 1999.

§ 418.108. Declaration of Local Disaster

(a) The presiding officer of the governing body of a political subdivision may declare a local state of disaster.

(b) A declaration of local disaster may not be continued or renewed for a period of more than seven days except with the consent of the governing body of the political subdivision.

(c) An order or proclamation declaring, continuing, or terminating a local state of disaster shall be given prompt and general publicity and shall be filed promptly with the city secretary or county clerk, as applicable.

(d) A declaration of local disaster activates the recovery and rehabilitation aspects of all applicable local or interjurisdictional emergency management plans and authorizes the furnishing of aid and

assistance under the declaration. The preparedness and response aspects of the plans are activated as provided in the plans.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.109. Mutual Aid

(a) The division shall encourage and assist political subdivisions not participating in interjurisdictional arrangements under this chapter to make suitable arrangements for furnishing mutual aid in coping with disasters. The arrangements must include provision of aid by public employees and agencies.

(b) In reviewing local emergency management plans, the division shall consider whether a plan contains adequate provisions for the rendering and receipt of mutual aid.

(c) In reviewing local and interjurisdictional emergency management plans, the division may require mutual aid agreements between political subdivisions if it determines that the political subdivisions have available equipment, supplies, and forces necessary to provide mutual aid on a regional basis and that the political subdivisions have not already made adequate provisions for mutual aid.

(d) A municipality, county, rural fire prevention district, emergency services district, fire protection agency, organized volunteer group, or other emergency services entity may provide mutual aid assistance on request from another municipality, county, rural fire prevention district, emergency services district, fire protection agency, organized volunteer group, or other emergency services entity. The chief or highest ranking officer of the entity from which assistance is requested, with the approval and consent of the presiding officer of the governing body of that entity, may provide that assistance while acting in accordance with the policies, ordinances, and procedures established by the governing body of that entity and consistent with any mutual aid plans developed by the emergency management council.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1995, 74th Leg., ch. 497, § 2, eff. June 12, 1995.

§ 418.110. Statewide Mutual Aid Program for Fire Emergencies

The division, in consultation with the Texas Commission on Fire Protection, shall develop a statewide mutual aid program for fire emergencies.

Added by Acts 1997, 75th Leg., ch. 1172, § 5.01, eff. Sept. 1, 1997.

SUBCHAPTER F. DISASTER MITIGATION**§ 418.121. Duty of Governor**

(a) In addition to disaster mitigation measures included in the state, local, and interjurisdictional emergency management plans, the governor shall as a continuing duty consider steps that could be taken to mitigate the harmful consequences of disasters.

(b) At the direction of the governor and pursuant to any other authority and competence a state agency may have, a state agency shall study matters related to disaster mitigation. This includes agencies charged with responsibility in connection with floodplain management, stream encroachment and flow regulation, weather modification, fire prevention and control, air quality, public works, land use and land use planning, and construction standards.

(c) The governor shall from time to time make recommendations to the legislature, local governments, and other appropriate public and private entities as may facilitate measures to mitigate the harmful consequences of disasters.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1997, 75th Leg., ch. 992, § 13, eff. Sept. 1, 1997.

§ 418.122. State Study of Land Use and Construction Standards

(a) The Texas Natural Resource Conservation Commission and other state agencies, in conjunction with the division, shall keep land uses and construction of structures and other facilities under continuing study and shall identify areas that are particularly susceptible to severe land shifting, subsidence, flooding, or other catastrophes.

(b) The studies shall concentrate on means of reducing or avoiding the dangers and consequences of a catastrophe.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987. Amended by Acts 1995, 74th Leg., ch. 76, § 11.08, eff. Sept. 1, 1995.

§ 418.123. Recommendations for Changes in Land Use or Construction Standards

(a) The division shall recommend to the governor the changes it considers essential if the division believes, on the basis of the studies under Section 418.122 or other competent evidence that:

(1) an area is susceptible to a disaster of catastrophic proportions

without adequate warning;

(2) existing building standards and land-use controls in that area are inadequate and could add substantially to the magnitude of the disaster; and

(3) changes in zoning regulations, other land-use regulations, or building requirements are essential to further the purposes of this subchapter.

(b) The governor shall review the recommendations. If after public hearing the governor finds the changes are essential, the governor shall make appropriate recommendations to the agencies or local governments with jurisdiction over the area and subject matter.

(c) If no action or insufficient action pursuant to the governor's recommendations is taken within the time specified by the governor, the governor shall inform the legislature and request legislative action appropriate to mitigate the impact of the disaster.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.124. Suspension of Land Use or Construction Standards

(a) When the governor makes recommendations under Section 418.123, the governor may suspend the standard or control found to be inadequate to protect the public safety and by rule may place a new standard or control in effect.

(b) The new standard or control remains in effect until rejected by concurrent resolution of both houses of the legislature or amended by the governor.

(c) During the time the new standard or control is in effect, it shall be administered and given effect by all appropriate regulatory agencies of the state and of the local governments to which it applies.

(d) The governor's action under this section is subject to judicial review but is not subject to temporary stay pending litigation.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

SUBCHAPTER G. CITIZEN DUTIES AND CLAIMS FOR COMPENSATION

§ 418.151. Citizen Duties

(a) Each person in this state shall conduct himself and keep and manage his affairs and property in ways that will reasonably assist

and will not unreasonably detract from the ability of the state and the public successfully to manage emergencies. This obligation includes appropriate personal service and use or restriction on the use of property in time of disaster.

(b) This chapter neither increases nor decreases these obligations but recognizes their existence under the constitution and statutes of this state and the common law.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.152. Compensation for Services and Property

(a) Services or the taking or use of property shall be compensated only to the extent that:

(1) the obligations recognized in this chapter are exceeded in a particular case; and

(2) the claimant may not be considered to have volunteered services or property without compensation.

(b) Personal services may not be compensated by the state or a subdivision or agency of the state except under statute or ordinance.

(c) Compensation for property may be made only if the property was commandeered or otherwise used in coping with a disaster and its use or destruction was ordered by the governor or a member of the disaster forces of this state.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.153. Compensation Claims

(a) A person claiming compensation for the use, damage, loss, or destruction of property under this chapter shall file a claim for compensation with the division in the form and manner required by the division.

(b) Unless the amount of compensation on account of property damage, loss, or destruction is agreed on between the claimant and the division, the amount of compensation is computed in the same manner as compensation due for taking of property under the condemnation laws of this state.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.154. Certain Claims Excluded

This subchapter does not apply to or authorize compensation for:

- (1) the destruction or damaging of standing timber or other property in order to provide a firebreak;
- (2) the release of water or breach of impoundments in order to reduce pressure or other danger from actual or threatened flood; or
- (3) contravention of Article I, Section 17, of the Texas Constitution or statutes pertaining to that section.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

SUBCHAPTER H. MISCELLANEOUS PROVISIONS

§ 418.171. Qualifications for Rendering Aid

A person who holds a license, certificate, or other permit issued by a state or political subdivision of any state evidencing the meeting of qualifications for professional, mechanical, or other skills may render aid involving the skill in this state to meet an emergency or disaster. This state shall give due consideration to the license, certificate, or other permit.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.172. Insurance Coverage

(a) Property damage insurance covering state facilities may be purchased by agencies of the state if necessary to qualify for federal disaster assistance funds.

(b) If sufficient funds are not available for the required insurance, an agency may petition the disaster emergency funding board to purchase the insurance on the agency's behalf. The board may spend money from that fund for that purpose.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.173. Penalty for Violation of Emergency Management Plan

(a) A state, local, or interjurisdictional emergency management plan may provide that failure to comply with the plan or with a rule, order, or ordinance adopted under the plan is an offense.

(b) The plan may prescribe a punishment for the offense but may not prescribe a fine that exceeds \$1,000 or confinement in jail for a term that exceeds 180 days.

Acts 1987, 70th Leg., ch. 147, § 1, eff. Sept. 1, 1987.

§ 418.174. Personal Liability Exemption of Member of Emergency Planning Council or Local Emergency Planning Committee

A member of the emergency management council established under Section 418.013 or of a local emergency planning committee established to develop an emergency management program in accordance with Subchapter E of this chapter is not personally liable for civil damages for an action arising from the performance of the person's duties on the council or committee.

Added by Acts 1989, 71st Leg., ch. 851, § 1, eff. Aug. 28, 1989.

§ 418.175. Certain Information Confidential

(a) Information that relates to physically or mentally disabled individuals or other medically fragile individuals and that is maintained for purposes of emergency management or disaster planning is confidential and excepted from required disclosure under Chapter 552.

(b) This section applies to information in the possession of any person, including:

(1) the state, an agency of the state, a political subdivision, or an agency of a political subdivision; or

(2) an electric, telecommunications, gas, or water utility.

Added by Acts 1999, 76th Leg., ch. 778, § 1, eff. June 18, 1999.

Appendix B

Executive Order

BY THE
GOVERNOR OF THE STATE OF TEXAS

Executive Department
Austin, Texas
April 3, 2002

EXECUTIVE ORDER
RP 12

Relating to Emergency Management.

WHEREAS, the Legislature of the State of Texas has enacted the Texas Disaster Act (the "Act") of 1975, Chapter 418 of the Texas Government Code to:

- Reduce the vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary actions;
- Prepare for prompt and efficient rescue, care, and treatment of persons victimized or threatened by disaster;
- Provide a setting conducive to the rapid and orderly restoration and rehabilitation of persons and property affected by disasters;
- Clarify and strengthen the roles of the Governor, state agencies, and local governments in the mitigation of, preparation for, response to, and recovery from disasters;
- Authorize and provide for cooperation and coordination of activities relating to mitigation, preparedness, response, and recovery by agencies and officers of this state, and similar state-local, interstate, federal-state, and foreign activities in which the state and its political subdivisions may participate;
- Provide a comprehensive emergency management system for Texas that is coordinated to make the best possible use of existing organizations and resources within government and industry, and which includes provisions for actions to be taken at all levels of government before, during, and after the onset of an emergency situation;
- Assist in the mitigation of disasters caused or aggravated by inadequate planning for and regulation of public and private facilities and land use; and
- Provide the authority and mechanism to respond to an energy emergency; and;

WHEREAS, the Governor is expressly authorized under Section 418.013 of the Act to establish by executive order an Emergency Management Council comprised of the heads of state agencies, boards, and commissions and representatives of organized volunteer groups to advise and assist the

Governor in all matters relating to mitigation, preparedness, response, and recovery; and,

WHEREAS, a Division of Emergency Management is established in the Office of the Governor under Section 418.041 of the Act, and the Director of the Division of Emergency Management is to be appointed by and serve at the pleasure of the Governor; and,

WHEREAS, with the aid and assistance of the Emergency Management Council and Division of Emergency Management, the Governor may recommend that cities, counties, and other political subdivisions of the state undertake appropriate emergency management programs and assist and cooperate with those developed at the state level;

NOW, THEREFORE, I, Rick Perry, Governor of Texas, by virtue of the power and authority vested in me by the Constitution and laws of the State of Texas, do hereby order the following:

The Emergency Management Council (the "Council") shall be created and maintained. The Council shall be comprised of the heads of the following state agencies, boards, commissions, and organized volunteer groups or any successors to each of these entities:

- Adjutant General's Department
- American Red Cross
- Department of Information Resources
- General Land Office *
- Governor's Division of Emergency Management *
- Office of Rural Community Affairs
- Public Utility Commission of Texas
- Railroad Commission of Texas *
- Salvation Army, The
- State Aircraft Pooling Board
- State Auditor's Office
- State Comptroller of Public Accounts
- Texas Animal Health Commission
- Texas Attorney General's Office
- Texas Building and Procurement Commission
- Texas Commission on Fire Protection *
- Texas Department of Agriculture *
- Texas Department of Criminal Justice
- Texas Department of Economic Development
- Texas Department of Health*
- Texas Department of Housing and Community Affairs
- Texas Department of Human Services
- Texas Department of Insurance

- Texas Department of Mental Health and Mental Retardation
- Texas Department of Public Safety *
- Texas Department of Transportation *
- Texas Education Agency
- Texas Engineering Extension Service *
- Texas Forest Service
- Texas Natural Resource Conservation Commission *
- Texas Parks and Wildlife Department *
- Texas Rehabilitation Commission
- Texas Workforce Commission

** (member of the State Emergency Response Commission)*

The specific duties and responsibilities of each member of this group shall be as designated in the State Emergency Management Plan and Annexes thereto. Each member of the group may designate a staff member representative to the Council.

The Director of the Texas Department of Public Safety shall be designated to serve as Chair of the Council and as Director of the Division of Emergency Management (the "Director").

The Division of Emergency Management shall be designated as the agency to exercise the powers granted to me under the Act in the administration and supervision of the Act, including, but not limited to, the power to accept from the federal government, or any public or private agency or individual, any offer of services, equipment, supplies, materials, or funds as gifts, grants, or loans for the purposes of emergency services or disaster recovery, and may dispense such gifts, grants, or loans for the purposes for which they are made without further authorization other than as contained herein.

The Director shall establish emergency operation areas to be known as Disaster Districts which shall correspond to the boundaries of the Texas Highway Patrol Districts and Sub-Districts and shall establish in each a Disaster District Committee comprised of representatives of the state agencies, boards, commissions, and organized volunteer groups having membership on the Council. The Highway Patrol Commanding Officer of each Highway Patrol District or Sub-District shall serve as Chair of the Disaster District Committee and report to the Director on matters relating to disasters and emergencies. The Disaster District Committee Chair shall be assisted by the Council representatives assigned to that district, who shall provide guidance, counsel, and administrative support as required.

The Council is authorized to issue such directives as may be necessary to effectuate the purpose of the Act, and is further authorized and empowered to exercise the specific powers enumerated in the Act.

The State Emergency Response Commission shall be a standing element of the Council in order to carry out certain state emergency planning, community right-to-know, and response functions relating to hazardous

materials. The Commission shall be comprised of representatives named by the heads of the agencies and commissions marked with an asterisk (*) in the listing of the Council above. The State Coordinator, as appointed by the Director under Section 418.041 of the Act, shall chair the State Emergency Response Commission or designate a chair.

The mayor of each municipal corporation and the county judge of each county in the state shall be designated as the Emergency Management Director for each such political subdivision in accordance with Sections 418.102, 418.103, and 418.105 of the Act, and published rules of the Division of Emergency Management. These mayors and county judges shall serve as the Governor's designated agents in the administration and supervision of the Act, and may exercise the powers, on an appropriate local scale, granted the Governor therein. Each mayor and county judge may designate an Emergency Management Coordinator who shall serve as assistant to the presiding officer of the political subdivision for emergency management purposes when so designated.

Each political subdivision of the state, pursuant to Section 418.104, of the Act, is authorized to establish in the county in which they are sited, inter-jurisdictional agencies by intergovernmental agreement, supported as needed by local city ordinance or commissioner's court order, in cooperation and coordination with the Division of Emergency Management of the Governor's Office. In compliance with Section 418.101 of the Act, the presiding officer of each political subdivision shall promptly notify the Division of Emergency Management of the manner in which it is providing or securing an emergency management program and the person designated to head that program.

This executive order supersedes all previous executive orders on emergency management including Executive Order RP-01, and shall remain in effect until modified, amended, rescinded, or superseded by me or by a succeeding Governor.

Given under my hand this the
3rd day of April, 2002.

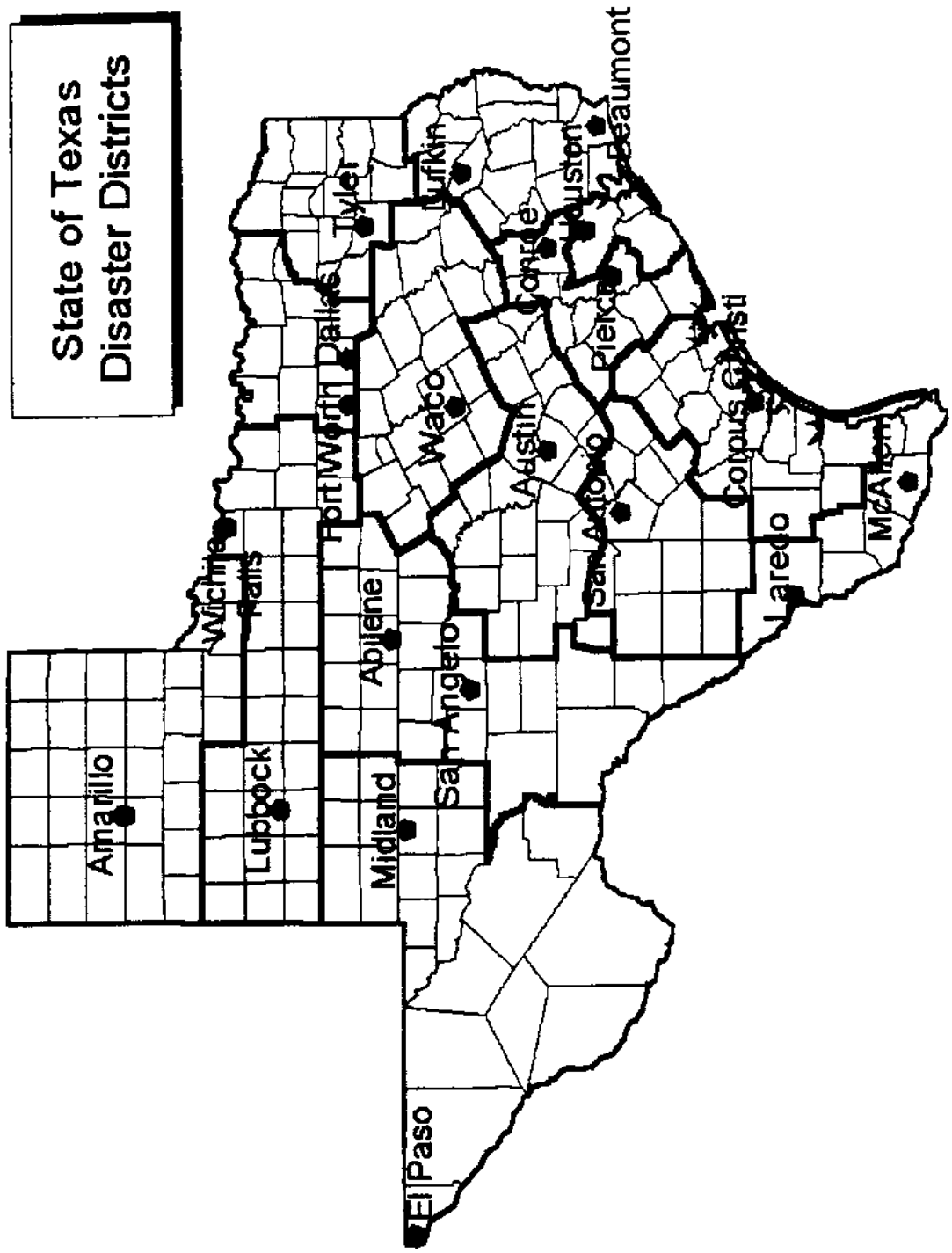
RICK PERRY (signature)
Governor

ATTESTED BY:

GWYN SHEA (signature)
Secretary of State

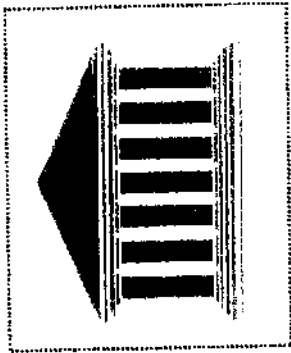
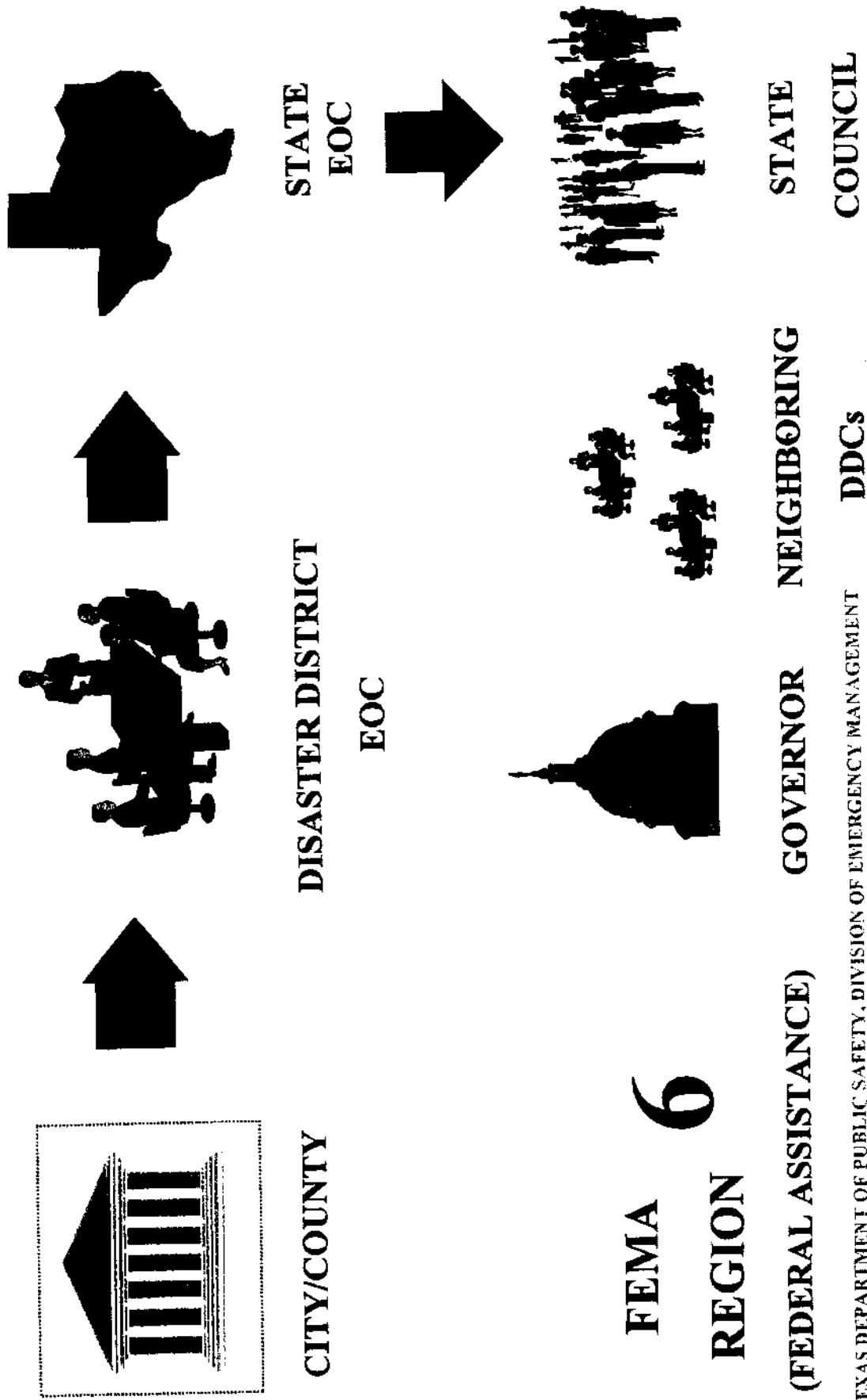
Appendix C

State of Texas Disaster Districts



Appendix D

**CHANNELS FOR REQUESTING
OPERATIONAL ASSISTANCE**



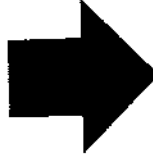
CITY/COUNTY



**DISASTER DISTRICT
EOC**

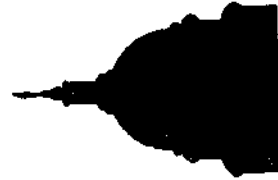


**STATE
EOC**



**STATE
COUNCIL**

**FEMA 6
REGION**



GOVERNOR

**NEIGHBORING
DDCs**



(FEDERAL ASSISTANCE)

TEXAS DEPARTMENT OF PUBLIC SAFETY, DIVISION OF EMERGENCY MANAGEMENT

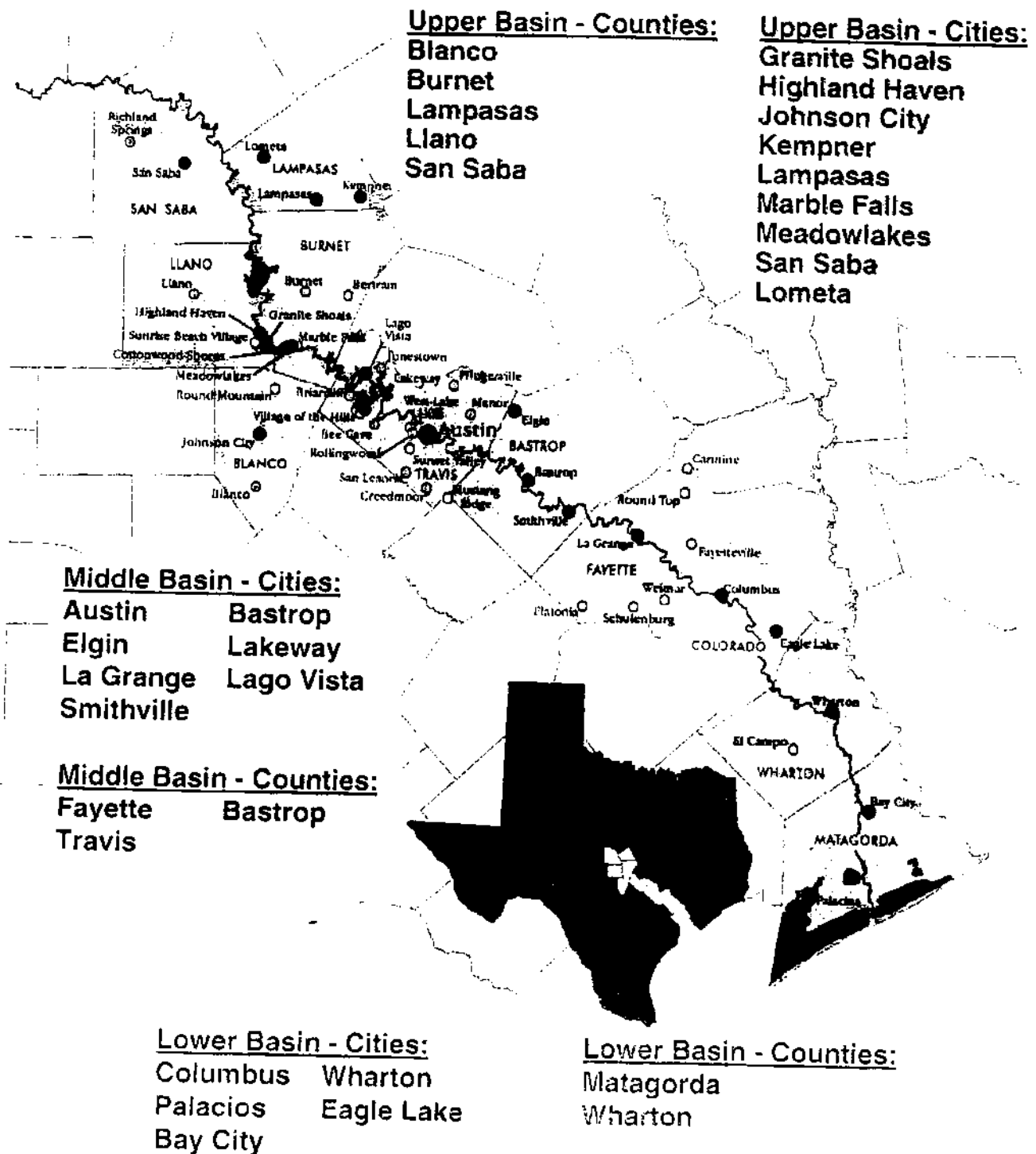
Appendix E

1-1 By: Brown S.B. No. 1203
 1-2 (In the Senate - Filed March 7, 2001; March 8, 2001, read
 1-3 first time and referred to Committee on Natural Resources;
 1-4 April 17, 2001, reported favorably by the following vote: Yeas 6,
 1-5 Nays 0; April 17, 2001, sent to printer.)
 1-6 A BILL TO BE ENTITLED
 1-7 AN ACT
 1-8 relating to coastal area hazard reduction and recovery planning and
 1-9 operations.
 1-10 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:
 1-11 SECTION 1. Subsection (a), Section 418.042, Government Code,
 1-12 is amended to read as follows:
 1-13 (a) The division shall prepare and keep current a
 1-14 comprehensive state emergency management plan. The plan must
 1-15 include a coastal hazard reduction and recovery annex as described
 1-16 by Section 418.0425 and may include:
 1-17 (1) provisions for prevention and minimization of
 1-18 injury and damage caused by disaster;
 1-19 (2) provisions for prompt and effective response to
 1-20 disaster;
 1-21 (3) provisions for emergency relief;
 1-22 (4) provisions for energy emergencies;
 1-23 (5) identification of areas particularly vulnerable to
 1-24 disasters;
 1-25 (6) recommendations for zoning, building restrictions,
 1-26 and other land-use controls, safety measures for securing mobile
 1-27 homes or other nonpermanent or semipermanent structures, and other
 1-28 preventive and preparedness measures designed to eliminate or
 1-29 reduce disasters or their impact;
 1-30 (7) provisions for assistance to local officials in
 1-31 designing local emergency management plans;
 1-32 (8) authorization and procedures for the erection or
 1-33 other construction of temporary works designed to protect against
 1-34 or mitigate danger, damage, or loss from flood, fire, or other
 1-35 disaster;
 1-36 (9) preparation and distribution to the appropriate
 1-37 state and local officials of state catalogs of federal, state, and
 1-38 private assistance programs;
 1-39 (10) organization of manpower and channels of
 1-40 assistance;
 1-41 (11) coordination of federal, state, and local
 1-42 emergency management activities;
 1-43 (12) coordination of the state emergency management
 1-44 plan with the emergency management plans of the federal government;
 1-45 (13) coordination of federal and state energy
 1-46 emergency plans; and
 1-47 (14) other necessary matters relating to disasters.
 1-48 SECTION 2. Subchapter C, Chapter 418, Government Code, is
 1-49 amended by adding Section 418.0425 to read as follows:
 1-50 Sec. 418.0425. COASTAL HAZARD REDUCTION AND RECOVERY ANNEX.
 1-51 (a) The division shall prepare a coastal hazard reduction and
 1-52 recovery annex to the state emergency management plan. The annex
 1-53 must include:
 1-54 (1) provisions for reduction of and recovery from
 1-55 coastal hazards;
 1-56 (2) provisions for providing assistance to local
 1-57 coastal jurisdictions in the preparation of coastal hazard
 1-58 vulnerability assessments;
 1-59 (3) a process for the integration of local coastal
 1-60 jurisdictions' coastal vulnerability assessments into a coastwide

1-61 vulnerability assessment;
1-62 (4) a process to network local coastal emergency
1-63 operations centers into the state operations center and provide
1-64 instant hazard analyses, evacuation route information, and support
2-1 assets of cities designated as evacuation destinations; and
2-2 (5) a procedure to conduct post-hazard analysis and
2-3 validation of vulnerability assessments.
2-4 (b) The division shall adopt rules to administer this
2-5 section.
2-6 SECTION 3. (a) This Act takes effect September 1, 2001.
2-7 (b) The division of emergency management in the office of
2-8 the governor shall implement the coastal hazard reduction and
2-9 recovery annex as described by Section 418.0425, Government Code,
2-10 as added by this Act, on or before March 1, 2002.
2-11 * * * * *

Appendix F

TCRFC Members as of September 1, 2001



Appendix G

**WHITE PAPER
PROBLEMS WITH FLOODPLAIN MANAGEMENT IN TEXAS**

Texas Floodplain Management Association developed this paper in preparation to providing testimony on May 23, 2002 in Harlingen, Texas, to the Texas Senate Natural Resource Committee chaired by Senator Buster Brown.

Testimony By: Diane L. Calhoun, CFM, Chair, Texas Floodplain Management Association

The Texas Floodplain Management Association (TFMA) is an association dedicated to improving floodplain management in Texas. As Chair of the Association, I represent over 500 members from Cities, Counties, State and Federal agencies, private industry, and citizens. I would like to thank the Senate Natural Resources Committee and it's Blue Ribbon Committee (authorized by Concurrent Resolution 68 – 1999) for your efforts in drafting, introducing and passing Senate Bill 936 that improves state agency coordination in preventing and mitigating damage and flood relief. Specifically, the legislation authorizes Texas Communities (especially Counties) to adopt and enforce regulations that will result in sound floodplain management that will reduce future flood losses and make Texas a safer place to live and work.

The Texas Floodplain Management Association presented our White Paper "Problems with Floodplain Management in Texas," on April 6, 2002, to Dr. Mike McKinney, Chief of Staff for Governor Rick Perry; Gene Acuna, Deputy Press Secretary, Governor Rick Perry's Office; Mike Howard, TNRCC State NFIP Coordinator; Tom Millwee, Director, Texas DEM; Isaac L. Jackson, TNRCC Legislative Liaison; Jack Evins, Director, Texas Department of Insurance; Carol Cates, Assistance Director, Government Relations, Texas Department of Insurance; Ron Castleman, FEMA Regional Director; and Frank Pagano, Mitigation Director, FEMA Region VI. My presentation to you today is a summary of the White Paper and also comments and recommendations from the TFMA Board of Directors.

Problems with Floodplain Management in Texas:

1. Strengthen the State NFIP Coordinator Role

TNRCC is the National Flood Insurance Program (NFIP) (Texas) State Coordinator and currently grossly understaffed. The current staffing for the TNRCC NFIP Office is only two (2) persons as compared to the NFIP coordinator roles in other states that have a staffing up to 48 FTE [Reference: *Floodplain Management 1995 State and Local Programs*, ASFPM]. Texas currently has 1256 communities that are mapped and designated as flood prone communities. Of the 1256 communities, 1073 participate in the NFIP and 185 face Federal sanctions of the Flood Protection Act where federal financial assistance, flood insurance and disaster assistance is prohibited.

The typical role of the state (NFIP) coordinator in other states is:

- enforcement of water regulations
- training of community flood plain administrators
- assistance to communities and citizens
- mitigation planning
- disaster response
- floodplain studies and mapping
- establish and enforce higher regulatory standards

Recommended Solution :

- Transfer a portion of the \$2 Million per year flood insurance policy fees going to the General Fund to TNRCC NFIP Coordinators Office
- Increase TNRCC NFIP Coordinator staffing to a minimum of 10 FTE
- Establish NFIP State Coordinator training goals for local FPA's
- Establish NFIP State Coordinators Role in Disaster Response and technical assistance to communities
- Establish a NFIP State Coordinator Role in community Mitigation Planning
- Increase funding for floodplain management activities
- Contract functions beyond staffing capability to private companies

2. The State of Texas floodplain management functions are secondary activities of DPS, TNRCC, TWDB and others.

TNRCC is designated as the (Texas) State Coordinator for the National Flood Insurance Program but only two of the thousands of TNRCC employees are assigned to this responsibility. The Department of Public Safety Division of Emergency Management (TxDEM) is assigned disaster response responsibilities and administers FEMA's Hazard Mitigation Grant Program and the Texas Water Development Board (TWDB) administers FEMA's Flood Mitigation Assistance (FMA) Program.

Recommended Solution:

- Establish a "stand alone" Texas Disaster Response Agency that reports directly to the Governor. This agency should combine the Disaster Role of DPS's Texas Division of Emergency Management, the floodplain management staff of TNRCC and the flood protection planning staff of TWDB into a stand-alone State Disaster Agency that reports to the Governor and receives independent state funding.

3. Non availability of technical assistance for Local Floodplain Administrators -

Local Floodplain Administrators (FPA) have no place to seek technical assistance regarding the permitting of development in flood prone areas. Very few communities have an engineer on staff or an individual with technical qualifications capable of reviewing and correctly permitting a proposed development. The State Coordinating Agency (TNRCC) only has a staff of two to service the entire state. Assistance from FEMA, the Corps of Engineers, River Authorities, technical associations such as TFMA and others is very limited leaving the Local FPA to fend for himself and often forced to give in to the developer's demands.

Recommended Solution:

- Provide state funding to the NFIP State Coordinating Agency to increase staffing to provide technical assistance to communities. Develop a cadre of disaster reservists with floodplain management expertise (CFM's) that can assist the TNRCC NFIP staff during peak overload times, especially following disaster events.

4. Lack of training for newly elected officials to inform them of proper Floodplain Management.

The turn over rate of elected officials in City and County government dictates the need to continuously train and inform elected officials in floodplain management and disaster response.

Recommended Solution:

Utilize the existing workshops and seminars by Texas Public Works Association (TPWA), Texas Municipal League (TML), Texas Association of Counties (TAC), Texas Floodplain Management Association (TFMA), the LBJ School on Governmental Affairs, Texas A&M University and others to educate newly elected officials. Provide state funding for training of elected officials and community staff.

5. Lack of an organized floodplain management team to assist local communities to respond to flooding disasters.

Recommended Solution:

Develop funding procedures that will allow creation of a "Mutual Aid Floodplain Management Team" that will assist communities when a flood occurs. Currently there is a small volunteer force comprised of Community Floodplain Administrators, retired floodplain management professionals, members of the Texas Floodplain Management Association (TFMA) and others that volunteer their time to assist communities to recover from flood events. Formal creation of a team of floodplain management volunteers could assist state agencies and local communities. This team should be limited to individuals that are Certified Floodplain Managers (CFM), have floodplain management experience and trained in state and federal programs. State funding would allow state disaster response agencies to pay travel and per diem for volunteers and to compensate retired and other highly trained individuals that are not employed by a municipality or county.

6. Not all State Agencies in Texas comply with the National Flood Insurance Program Requirements.

In 1999, TNRCC has initiated Memorandums of Understanding (MOU) with state agencies to adopt minimal floodplain management requirements. Only 8 agencies have signed a MOU with TNRCC. A recent legal opinion by the General Services Commission claims that the State of Texas is sovereign over all political subdivisions of the state and exempt from the development jurisdiction of local authorities. This action is contrary with action by state agencies in all other states. [Reference Floodplain Management 1995 State and Local Programs, ASFPM].

Recommended Solution:

Initiate a new Governors Executive Order that requires state agency compliance with 44 CFR and the NFIP in Texas.

7. Texas Communities are unwilling or not properly trained to determine if a structure is Substantial Damaged following a disaster event

All communities participating in the National Flood Insurance Program (NFIP) have an ordinance that requires new construction and substantial improvement to be elevated to the base flood elevation (BFE). This also applies to disaster recovery and structures damaged over 50% cannot be rebuilt unless the structure is elevated to the BFE. Normally, when a community suffers a major flood event, they do not have adequate staffing resources to ensure that permits to repair or rebuild are issued for damaged structures and that substantially damaged structures are redtagged to notify owners that they cannot be rebuilt without a permit.

Recommended Solution:

- (1) TNRCC Floodplain Management Staff provide technical assistance to communities immediately following a disaster event.
- (2) Require Substantial Damage Estimator training for all Community Floodplain Administrators. FEMA, TNRCC, Texas Floodplain Management Association (TFMA) and the LBJ School can provide this training.
- (3) Assist local communities as noted in recommendation #5.

8. Improper use of Individual Family Grants (IFG) immediately following a disaster event.

During disaster recovery, FEMA issues Individual Family Grants (IFG) to assist victims in getting their feet back on the ground. Unfortunately this is misinterpreted by the disaster victim as permission to rebuild after a disaster. This causes major problems and will often bypass the community permit requirements. If a substantial damage (>50% of value of structure) has occurred, the community flood damage prevention ordinance prevents the structure from being re-build on that location without elevating or floodproofing the structure above the base flood elevation.

Recommended Solution:

A blanket Emergency Repairs Permit can be mailed from the Disaster Field Office to individuals that receive an Individual Family Grant (IFG). The Emergency Repairs Permit should be mailed to arrive simultaneously when the Federal IFG check arrives. The Permit can list authorized emergency repairs and instructions on how to obtain a building permit for permanent repairs including the address of the local Community Permit Office. The Community Permit Office should have posters and handouts describing allowable IFG repairs and permit requirements for permanent repairs.

9. Lack of Land Use Authority in Texas Counties –

Texas counties and home rule cities now have limited land use authority (SB936) but guidance, training and assistance have not been provided. SB 936 was a giant step for floodplain management in Texas because prior to SB 936, only four Texas counties had authority to regulate development to a standard higher than the NFIP "minimum" standards outlined in 44 CFR. Sound floodplain management is a direct result of locally enforced standards and regulations that properly address the hazard. Harris County for example, requires development located within special flood hazard areas (within the area mapped as the 100-year flood) to be elevated a minimum of 18 inches above the published 100-year base flood elevation (BFE). Harris County also requires that development in areas subject to coastal storm surge (near Galveston Bay) to be elevated based on the latest elevation datum established by the Harris Galveston Coastal Subsidence District. This requirement will ensure that the flood level in the area of the proposed development will be elevated to compensate for any subsidence that may have occurred. All Texas Counties should have the guidance, training and assistance needed to adopt and enforce a flood damage prevention ordinance that addresses the risks and meets the needs of the citizens.

Recommended Solution:

- TNRCC conduct studies and evaluations to evaluate current local programs
- TNRCC provide floodplain management training to local communities
- TNRCC provide model ordinances, permit procedures and forms
- TNRCC provide one-on-one technical assistance

10. Unqualified Local Flood Plain Administrators (FPA) –

The local community FPA is often an individual that is new to the job, has received minimal training in floodplain management and/or not qualified to administer and enforce the local community's flood damage prevention ordinance.

Recommended Solution:

Require that a minimum of one FPA in all communities become a Certified Floodplain Manager (CFM) and maintain the CFM certification by annual continuing education credits. This can be a phased requirement where Phase 1 is for communities over 100,000 populations to have a CFM on staff, followed by phases 2 and 3 for populations in excess of 50,000 and 20,000. The State of New Mexico has a CFM requirement for all communities and the level of expertise for local flood plain administrators has been greatly improved.

11. Buyout Programs funded by FEMA's Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA) Program –

Currently this is the major source of funding to acquire repetitive loss structures and relocate citizens out of harm's way. Funding for these programs is 75% federal and 25% local. The October 1994 East Texas Flood and Tropical Storm Allison were the first major buyout programs in Texas. After the October 1994 Flood there were over 300 homes in Montgomery County acquired and structures either relocated to non-flood prone sites or demolished creating an open space area within the floodplain. Approximately 1600 structures are being acquired for relocation or demolition in Harris County after Tropical Storm Allison. The 25% local share can be a major sum and beyond the financial capabilities of the local community. Montgomery County for example did not sponsor a buyout effort after floods in 1998 and 2001 because the cost was beyond the County's capability and public support for another buyout program was not available.

Recommended Solution:

Establish a State funded Buyout Program to assist local communities to provide the 25% local match requirement for HMGP and FMA projects. We recommend that stringent requirements be incorporated into state funding where the local community must have a Certified Flood Plain Manager (CFM), adopt an approved mitigation plan and agree to maintain adequate staffing and resources to support a sound floodplain management program.

12. Local Community Officials are forced to deal with too many state and Federal agencies during a disaster recovery.

Most Texas counties and smaller communities have minimal staff and when a disaster occurs this small staff must conduct normal functions in addition to disaster recovery and coordination with state and Federal agencies.

Recommended Solution:

Under the umbrella of the State Disaster Agency, form a Floodplain Management Team of reservists to assist state agencies and local communities. This team should be limited to individuals that are Certified Flood Plain Managers (CFM), have flood plain management experience and trained in state and federal programs. State funding should be provided to allow state disaster response agencies to pay travel and per diem for volunteers from other communities and to compensate individuals that are retired and other highly trained individuals that are not employed by a municipality or county.

13. Enforcement of HB 1018 and Texas Water Code Section 16.3145 that requires all floodprone Texas Counties and Municipalities to meet the minimal requirements of the NFIP.

The legislation requires that, "The governing body of each city and county shall adopt ordinances or orders, as appropriate, necessary for the city or county to be eligible to participate in the National Flood Insurance Program." Currently 185 Texas communities have not complied with the deadline outlined in the legislation. TNRCC has the responsibility to contact these communities and assist them in enrolling in the NFIP. TNRCC conducted a series of statewide meetings utilizing the Council of Governments (COGs) and were successful in reducing the original number of nonparticipating communities from 380 when the legislation passed to the current total of 185.

Recommended Solution:

Provide state funding for TNRCC to enact a plan to contact the remaining 185 nonparticipating communities, conduct training and provide followup assistance for the communities to adopt and implement a floodplain management program.

14. Out of date or inaccurate flood hazard maps in Texas.

The Flood Insurance Rate Maps (FIRM) utilized by Cities and Counties for flood plain management and disaster response need to be updated. Areas in Texas that are experiencing rapid growth are forced to utilize out of date mapping to make important decisions regarding development.

Recommended Solutions:

- (1) Transfer a portion of the approximately \$2M per year flood insurance policy fee currently going to the Texas General Fund to TNRCC to be utilized for floodplain studies, mapping and floodplain management to provide floodplain management technical services to Texas communities.
- (2) Support the FEMA Map Modernization Program that recommends that \$900M+ be expended on the national level to update FEMA's maps.

15. Texas Water Code only establishes minimal floodplain management requirements for state agencies and local communities.

The Texas Water Code does not address floodplain management standards that would exceed the "minimum" standards required for participation in the National Flood Insurance Program. The FEMA OR NFIP "minimal" floodway requirement allows encroachment within the floodplain that results in a maximum of a one-foot rise during the occurrence of the 100-year or base flood discharge

Recommended Solution:

Pass legislation and revise the Texas Water Code to establish a "higher standard" floodway in Texas. Floodways are designated along streams, creeks and bayous by FEMA to establish areas where development should be prohibited to maintain the carrying capacity of the stream. This is a national standard but many states have recognized that the FEMA requirement is a "minimal" requirement. Many states (AZ, IL, IN, IO, MD, MI, MN, NJ, WI) have adopted a higher standard floodway where a minimal rise or no rise is allowed within the floodplain during the occurrence of the 100-year or base flood discharge. State legislation establishing a higher standard floodway throughout Texas also would assist all communities to establish sound floodplain management practices.

16. Lack of a penalty clause in local flood damage prevention ordinances to ensure compliance.

Currently most communities have a minimal penalty clause or no penalty clause at all and if someone violates the ordinance therefore there is minimal or no penalty and no incentive to comply.

Recommended Solution:

Revise the Texas Water Code to require a major Penalty Clause when an individual violates the communities Flood Damage Prevention Ordinance. A minimum penalty of \$100 to \$200 per day should ensure compliance.

17. Erosion along Texas Coastal Areas is not properly addressed.

Jurisdiction along coastal areas is shared by the General Land Office (Coastal Zone Management Plan) and local communities through the NFIP. In the case of active erosion areas such as Galveston and Brazoria Counties it is possible to construct a new structure in an area where the average erosion rate is 5 to 10 feet per year. The local community and GLO are powerless in preventing construction in active erosion areas where the new construction will be in danger within 5 to 10 years. Coastal structures subject to erosion often become a burden to the owner who faces the loss that most likely will not be covered by flood insurance, the flood insurance pool when the loss is covered by flood insurance, and/or the taxpayer when public funds are utilized to pay for a beach replenishment project.

Recommended Solutions:

- (1) Revise the Texas Water Code and Coastal Zone Management to require better control of coastal development in identified erosion areas and prevent the drain on taxpayers and the flood insurance pool.
- (2) Limit State funded beach replenishment projects to encourage better local floodplain management programs.

18. Lack of Higher Regulatory Standards for Floodplain Management in Texas Communities.

To participate in the National Flood Insurance Program a community must adopt a flood damage prevention ordinance that complies with the "minimum" Federal Regulations outlined in 44CFR. With limited exceptions, prior to SB 936, Texas Counties and home rule cities could only adopt the "minimum" NFIP requirements. SB 936 allows all communities (cities, counties, MUD's LID's, WCID's with land use authority) to adopt higher regulatory standards or regulations that exceed the NFIP "minimum" and allow communities to enforce sound floodplain management regulations that address individual community needs. The Community Rating System (CRS) was created by FEMA to recognize and reward communities that have adopted and enforce floodplain management programs that exceed the NFIP "minimum". Of the 1073 communities in Texas enrolled in the NFIP only 39 communities or 3% of the total communities have enrolled in the CRS program. Therefore one could assume that the majority of the 97% not enrolled in the CRS program have adopted and enforce the "minimum" NFIP standards.

Recommended Solutions:

(1) Local communities should be encouraged or possibly required by Texas Legislation and revision to the Texas Water Code, to develop higher regulatory standards for Floodplain Management to reverse the current trend to only adopt "minimum" NFIP Regulations. For example, new construction in Zones A and V (Special Flood Hazard Areas) should be elevated a minimum of 1' (12 inches) above the BFE or above the crown of the nearest public street whichever is higher. In other hazard zones (Zone B, C and X) new construction should be elevated a minimum of 1' (12 inches) above natural grade or above the crown of the nearest public street whichever is higher. These two requirements would establish a higher standard and help minimize flood damage from inadequate drainage. During Tropical Storm Allison (June 2001), major areas located outside mapped Special Flood Hazard Areas flooded within the 35 communities in Harris County. A significant number of these structures would have been spared from flooding if the minimal requirements outlined above had been adopted.

(2) Several states have adopted state law that mandates higher regulatory standards for development in flood prone areas. These states historically have lower flood losses than Texas. State law that mandates a higher regulatory standard for development within all flood prone areas will provide the needed support for local communities when they deal with developers and landowners.

19. Violations of requirements related to SBA Loans.

After flood events an SBA Loan for relocation out of a flood plain area often leaves a property owner with ownership of both the flooded structure and a new structure located outside the floodplain. In most incidents, the flooded structure was substantially (over 50%) damaged and cannot be repaired or rebuilt unless the structure is elevated or flood proofed (non residential structures only) above the base flood elevation. A condition of the SBA loan is for the flooded structure to be demolished, elevated or relocated out of the floodplain. The local community flood damage prevention ordinance prohibits repairs or rebuilding the (substantially damaged) flooded structure unless it is elevated or flood proofed. There have been incidents where these flooded structures have been sold to unsuspecting buyers, rented or repaired without local community permit.

Recommended Solution:

Provide more assistance to local Floodplain Administrators (FPA) after flood events. Educate local community Floodplain Administrators (FPA) of the requirements of SBA Loans and enforcement of the Flood Damage Prevention Ordinance. Provide state funding for the Disaster Reservists described in # 8 and the "Self Help Flood Plain Management Team" described in #14. Provide state funding for training of local FPA's.

20. Liability related to actions by the "Mutual Aid Floodplain Management Team".

Regular "Disaster Reservists" are under the umbrella of the state disaster response agency but the "Mutual Aid Floodplain Management Team" consisting of volunteers, retired persons and selected flood plain specialists must function as individuals or on behalf of non profit associations such as TFMA. These "Mutual Aid" disaster volunteers have expressed concern that they may be personally liable when they provide assistance to communities during disaster response operations.

Recommended Solution:

State agency action to assign "Mutual Aid" volunteers to work under a TNRCC during the disaster recovery effort so these individuals can be offered the same degree of protection as if they were paid state or federal agency employees.

21. Lack of Coordination between the Local Community Emergency Management Official and Flood Plain Administrator.

Often during disaster recovery, the local community coordination effort is led by the Emergency Management Official with little or no input from the local floodplain administrator. In many communities the two officials have no interaction therefore have no knowledge of each other's responsibilities or capabilities. DEM's State Hazard Mitigation Officer (SHMO) has made a concerted effort to coordinate emergency management and floodplain management and the current SHMO has become a Certified Floodplain Manager (CFM). DEM conducts concurrent workshops during the annual Emergency Management Conference and includes floodplain management as one of the concurrent sessions while TFMA has added emergency management presentations as part of the annual TFMA Conference and encouraged membership and certification in both organizations.

Recommended Solution:

Provide state funding for joint training of emergency managers and floodplain managers. Assign training and coordination duties to DEM, TNRCC and TFMA. During disaster recovery operations encourage and possibly require participation by both the emergency manager and floodplain administrator from each community.

This White Paper was prepared by Texas Floodplain Managers Association (TFMA) in preparation for testimony before the Texas Senate Natural Resources Committee and includes comments and recommendations from the TFMA Board.

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