



---

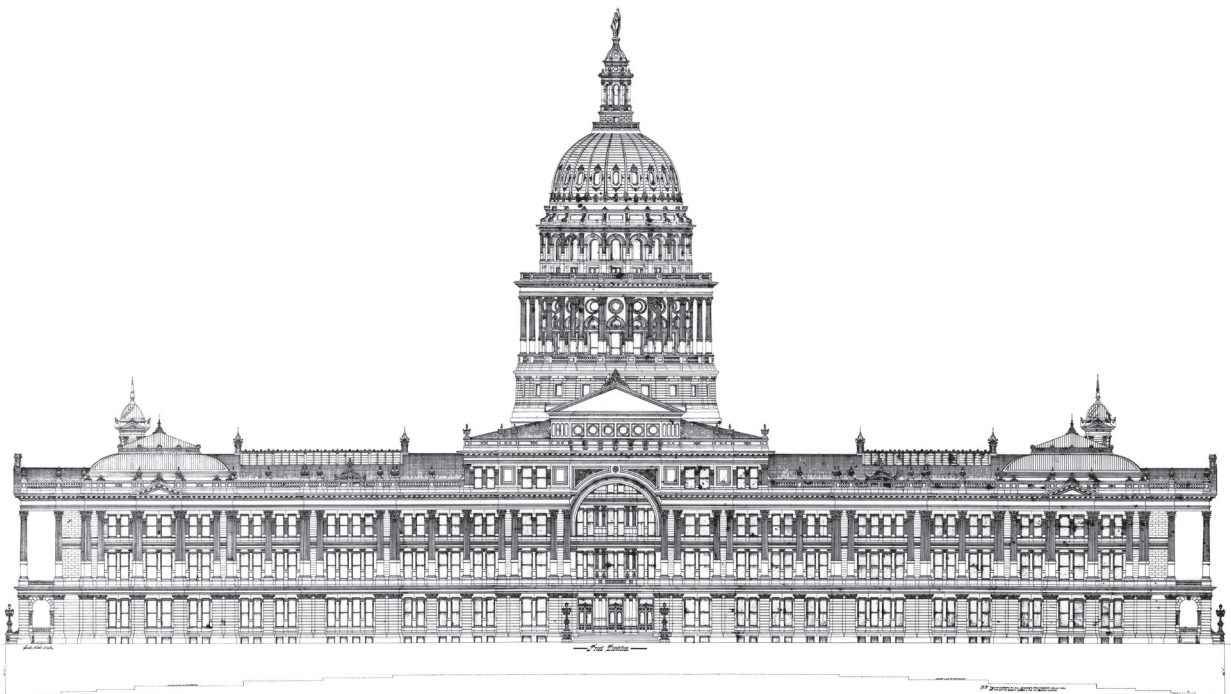
# INTERIM REPORT

TO THE

# 82ND TEXAS LEGISLATURE

---

*House Committee on*  
EMERGENCY PREPAREDNESS  
December 2010



---

**HOUSE SELECT COMMITTEE ON EMERGENCY PREPAREDNESS  
TEXAS HOUSE OF REPRESENTATIVES  
INTERIM REPORT 2010**

**A REPORT TO THE  
HOUSE OF REPRESENTATIVES  
82ND TEXAS LEGISLATURE**

**AARON PEÑA  
CHAIRMAN**

**COMMITTEE CLERK  
BENJAMIN WRIGHT**

---



House Select Committee On  
Emergency Preparedness

December 12, 2010

Aaron Peña  
Chairman

P.O. Box 2910  
Austin, Texas 78768-2910

The Honorable Joe Straus  
Speaker, Texas House of Representatives  
Members of the Texas House of Representatives  
Texas State Capitol, Rm. 2W.13  
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members,

The Texas House of Representatives boasts a long history of gauging the state's level of emergency preparedness for disasters resulting from natural catastrophes and criminal threats.

In 1874, the House and Senate appointed a Joint Committee to investigate "border troubles." After hearing from "gentlemen of extensive information and large experience," the committee detailed the "difficulties, dangers and losses" which resulted in "disquiet and a general feeling of insecurity," for border communities.

Similarly in 1901, another Joint Committee investigated "the condition of the people residing in the district (Galveston) damaged by the storm on September 8th, 1900," taking the "testimony of various and sundry persons."


Both reports made legislative recommendations to the Texas House that aimed - in the words of our present committee's charge - to "improve preparedness for future disasters."

It is this rich story of hearings, reports and recommendations that the House Select Committee on Emergency Preparedness has aspired to build upon. The committee has travelled extensively around the state in order to listen to the concerns and ideas of Texans.

As requested, the committee has conducted an analysis of Texas' critical infrastructure, emergency warning systems, planning organizations, evacuation plans, first response efforts and overall co-ordination of jurisdictions. The committee has also reviewed previous legislative studies to determine the state's progress, and has made legislative recommendations to improve preparedness.

The House Select Committee on Emergency Preparedness of the Eighty-first Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eighty-second Legislature.

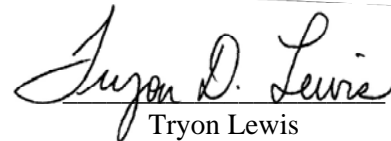
Respectfully submitted,

  
Aaron Peña

  
Mike Hamilton

  
Rick Hardcastle

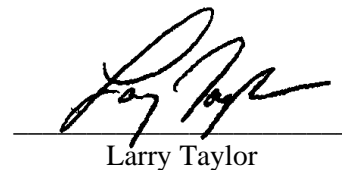
\_\_\_\_\_  
Frank Corte, Jr.

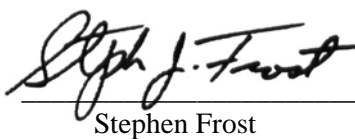
  
Tryon Lewis

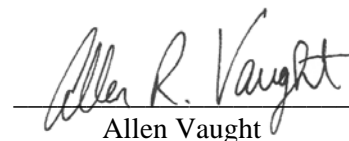
\_\_\_\_\_  
Harold Dutton

  
Mark Strama

  
Joe Farias

  
Larry Taylor

  
Stephen Frost

  
Allen Vaught

Aaron Peña  
Chair

Mike Hamilton  
Vice Chair



State of Texas  
House of Representatives

TRYON D. LEWIS  
STATE REPRESENTATIVE

CAPITOL OFFICE:  
POST OFFICE BOX 2910  
AUSTIN, TEXAS 78768  
(512) 463-0546  
FAX (512) 463-8067

DISTRICT OFFICE:  
119 WEST 4TH STREET  
SUITE 206  
ODESSA, TEXAS 79761  
(432) 332-0937  
FAX: (432) 332-0394

November 23, 2010

**Re: Select Committee on Emergency Preparedness - Interim Report**

**I appreciate the work of Chairman Aaron Pena, the members of the committee and the staff for the hard and focused work which resulted in this thoughtful report. In recognition of that appreciation, I have affixed my signature to the Committee Report.**

**By this letter I do wish to mention that I am in opposition to use of the Rainy Day Fund as a source of funding for disaster response. I would propose as an alternative that the governmental entities, local and state, which consider themselves at substantial risk from natural disasters, should be able to contribute to the Disaster Contingency Fund, or a separate fund, which would then be available to them in time of need. The amount of contribution from each entity could be based on historical need for emergency funds.**

Sincerely,

A handwritten signature in cursive script that reads "Tryon D. Lewis".

**Tryon D. Lewis  
State Representative  
House District 81**



**DISTRICT 81  
ANDREWS, ECTOR AND WINKLER COUNTIES**



**RICHARD L. "RICK" HARDCASTLE**  
HOUSE OF REPRESENTATIVES

November 24, 2010

To: Chairman Aaron Pena

Re: Select Committee on Emergency Preparedness

First let me start off by thanking you and your staff for the exhaustive research and work during the interim for the Select Committee on Emergency Preparedness. Everyone involved did an outstanding job and can be proud of their work.

Not taking anything away from the bulk of the report, I felt that I needed to state my concern to the suggestion of funding the Disaster Contingency Fund using part of the Economic Stabilization Fund or "Rainy Day Fund". The fund should be used to ensure the future stabilization of our entire state budget instead of acting as a loan mechanism to float funds to agencies waiting for federal reimbursement. The precedent, in my humble opinion, would open up the door for other purposes of loaning out the funds available.

Thank you for your service as chairman.

Sincerely,

A handwritten signature in cursive script that reads "Rick L. Hardcastle".

Rick Hardcastle  
State Representative

# TEXAS HOUSE OF REPRESENTATIVES

CAPITOL OFFICE:  
P.O. Box 2910  
AUSTIN, TEXAS 78768-2910  
512-463-0729  
FAX: 512-474-2398



DISTRICT OFFICE:  
174 CALDER ROAD, SUITE 116  
LEAGUE CITY, TEXAS 77573  
281-338-0924  
FAX: 281-554-9240

November 30, 2010

## LARRY TAYLOR

Rep. Aaron Peña, Chairman  
House Select Committee on Emergency Preparedness  
P.O. Box 2910  
Austin, TX 78768-2910

Dear Chairman Peña,

Thank you for allowing me to serve as a member of the House Select Committee on Emergency Preparedness. I appreciate the hard work you and your staff made in preparation of this well organized and meaningful report.

The report outlines numerous concerns, proposals and legislative solutions regarding major issues affecting our state's emergency preparedness. While I generally approve of the findings contained within the report, I would like to note some reservation in respect to funding recommendations.

As you know, the 82nd Legislature is expected to see a multi-billion dollar shortfall for the 2012-2013 biennium. With the Legislature's looming responsibility of addressing such a large shortfall, I believe all funding mechanisms suggested within the report serve as guideline for the Legislature to consider rather than a directive the committee fully recommends.

In addition, dedicating a portion of the Economic Stabilization Fund or "Rainy Day Fund" to be used as a safety net for the Disaster Contingency Fund may deserve consideration as a solution in the future, but not under our current fiscal constraints. Like you, preparing for our state's future emergencies is a priority for my district and I am committed to working with you and members of our committee to find funding avenues that provide Texans with a more stable financial option when disaster strikes.

Overall, it has been an honor to travel the state and seek solutions to emergencies Texas may unfortunately face in the future. It was a pleasure working with you, your staff and my colleagues of the committee. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Taylor".

Larry Taylor  
State Representative  
District 24



LARRY.TAYLOR@HOUSE.STATE.TX.US

## In memory of Jack Colley

*"This 'aint Rhode Island"*

*"Clearly how you plan, how you train, how you exercise,  
that is the hallmark of Texas"*

*"Emergency Management is a thinking man's sport"*



---

## TABLE OF CONTENTS

INTRODUCTION .....	13
The Speaker's Charge and the Report's Organization .....	13
What the Committee Did .....	13
A Note About Recommendations .....	14
1 HOMELAND SECURITY: TERRORISM AND BORDER SECURITY.....	16
Background.....	16
Drug Cartels and Terrorism Linked.....	16
Changing Nature of Mexican Drug Cartels .....	17
Potential Emergency Scenarios.....	18
The Problem of Response .....	20
State Capabilities .....	21
Progress.....	22
The Secure Communities Initiative .....	24
Local Best Practices.....	24
Recommendations.....	25
2 HURRICANE PREPAREDNESS .....	27
Background.....	27
Lower Rio Grande Valley Scenario.....	27
Reluctance to Evacuate .....	28
Post Disaster Issues.....	29
Houston Galveston Industrial Sector .....	29
The Ike Dike Solution.....	30
"Zone specific" Solutions .....	31
Progress.....	32
Recommendations.....	32
3 PANDEMICS AND PUBLIC HEALTH PREPAREDNESS .....	34
Background.....	34
Summary of Potential Public Health Emergency Scenarios.....	34

---

Pandemic Flu .....	35
Department of State Health Services .....	39
Structures in Action: Medication Distribution and H1N1 .....	39
DSHS Response Capabilities .....	41
Surge Capacity .....	42
Hospital Plans .....	43
Progress .....	44
Surge Capacity Planning .....	45
Liability .....	45
Operation Lone Star .....	45
TexMAT-1 .....	45
Pilot Projects in South Texas .....	46
Medical Training .....	47
Recommendations .....	47
4 OTHER THREATS .....	49
Background .....	49
Oil Spills .....	49
Localized Severe Flooding .....	50
Houston .....	50
El Paso .....	51
Tornadoes .....	51
Wildfires .....	51
Hazmat Incidents .....	52
Progress .....	53
Recommendations .....	53
5 STATE AND LOCAL PLANNING ORGANIZATIONS .....	56
Background .....	56
Where the Buck Stops .....	56
State Agencies .....	56
The Texas Department of Emergency Management .....	57
Department of State Health Services .....	58

---

Texas Forest Service .....	59
Texas Military Forces .....	60
Coordination of Jurisdiction .....	60
Emergency Service Functions.....	61
The Chain of Assistance .....	61
The National Incident Management System (NIMS) .....	62
The Texas Statewide Mutual Aid System and TIFMAS .....	62
Progress.....	63
Recommendations.....	64
6 EMERGENCY WARNING SYSTEMS AND COMMUNICATIONS.....	65
Background.....	65
The Emergency Alert System .....	65
Siren Systems.....	66
Reverse Notification Systems .....	66
The 211 Texas Information and Referral Network.....	67
Poison Control Network .....	67
Progress.....	68
911 and "Next Generation 911" .....	68
Internet, Social Media and Cell Phone Messaging .....	68
What Others States are Doing.....	69
Unresolved Issues .....	70
Recommendations.....	71
7 EVACUATION AND SHELTER PLANS .....	72
Background.....	72
Authority .....	72
Evacuation Preparation .....	73
Contraflow and "Evaculanes" .....	74
Special Needs Evacuations .....	74
211 Registry .....	74
High-Speed Rail.....	75
Progress.....	75

Pets and Animals.....	76
Mandatory Evacuation .....	76
Recommendations.....	77
<b>8 FIRST RESPONSE EFFORTS .....</b>	<b>78</b>
Background.....	78
First Response and State Pre-Deployment of Assets .....	78
Deployable Teams .....	79
Rapid Response Teams .....	79
Texas Task Force 1 .....	80
Public Works Response Teams and Critical Infrastructure .....	80
Debris Removal Teams.....	81
Interoperability.....	81
Electrical Utilities .....	82
Community Preparedness .....	83
Mass Care.....	85
Public-Private Partnerships.....	86
Looking After First Responders and Volunteers .....	87
Statutory Progress .....	87
2005.....	87
2007.....	87
2009.....	88
Recommendations.....	88
<b>9 CRITICAL INFRASTRUCTURE AND KEY RESOURCES.....</b>	<b>90</b>
Background.....	90
State custodial facilities .....	90
Cyber Infrastructure .....	91
Port Security.....	92
Houston Ship Channel Security District.....	92
The Port of Brownsville.....	94
Housing.....	95
Universities and School Districts.....	96

---

The University of Texas at El Paso.....	96
Harris County School Districts .....	97
Progress.....	97
Schools .....	98
Agriculture .....	98
Recommendations.....	99
10 CONTINUITY OF GOVERNMENT.....	100
Background.....	100
Continuity of Operations Plans.....	100
Judicial Continuity .....	100
Local, State and National Disaster Declarations.....	102
Progress.....	103
2007.....	103
2009.....	104
Task Force to Ensure Judicial Readiness in Times of Emergency .....	104
Recommendations.....	104
CONCLUSION.....	106
Over Reliance on Federal Funds.....	106
Dedicated Funding Mechanisms.....	107
Local Funding Options .....	109
Offsetting Costs .....	109
The Future of Preparedness and the Texas House .....	110
APPENDICES .....	112
APPENDIX A LIST OF ACRONYMS.....	113
APPENDIX B GLOSSARY OF TERMS.....	116
APPENDIX C PREVIOUS LEGISLATIVE REPORTS .....	124
APPENDIX D WITNESS LISTS FROM HSCEP HEARINGS .....	129
ENDNOTES .....	134

---

## INTRODUCTION

Texas faces a full spectrum of threats including hurricanes, transnational gangs, wildfires, pandemics and terrorism. As such, the state must be well prepared to deal with a variety of emergencies at all times - in other words Texas must adopt an "all hazards" approach to emergency planning.

Texas is probably the most well equipped state in the Union when it comes to preparing and dealing with major emergencies. That is because, in the words of the late Jack Colley, Texas prepares, "based on risk not occurrence."<sup>1</sup> That precept - if properly followed -should prevent the state government from complacency when it comes to keeping Texans safe.

Employing an all hazards approach based on risk rather than occurrence means there is always room for improvement - a continued need to assess and analyze emergency preparedness while reviewing progress and recommending improvements.

### **The Speaker's Charge and the Report's Organization**

The committee was charged by the Speaker as follows:

"The committee shall comprehensively study the State of Texas' preparedness level for major disasters, including those resulting from natural catastrophes and criminal activity. (*Assess*)

The study should include an analysis of the level of preparedness among critical infrastructure entities, state and local emergency planning organizations, emergency warning systems, evacuation plans, first response efforts, and overall coordination of jurisdictions across the state. (*Analyze*)

As part of its work, the committee should conduct a review of previous studies regarding emergencies to determine whether progress has been made. (*Review*)

Finally, the committee should make legislative recommendations to improve preparedness for future disasters."<sup>2</sup> (*Recommend*)

The committee has chosen to think about those four clauses of the charge in terms of:

- 1) *Assessing* general preparedness.
- 2) *Analyzing* preparedness infrastructure.
- 3) *Reviewing* preparedness progress.
- 4) *Recommending* preparedness measures the Legislature can enact (to improve preparedness.)

The report has been organized into two sections based around the first two aspects of the charge - Section 1 (*assess*) and Section 2 (*analyze*.) The third and fourth aspects of the charge (*review* and *recommend*) have been interwoven into the chapters within those two sections.

### **What the Committee Did**

The Committee conducted hearings in Austin, McAllen, Houston, Dallas and El Paso. Committee members and staff attended numerous conferences including the Texas Homeland

---

Security Conference in San Antonio (February) and the Department of State Health Services public health symposium in Austin (July), and were given operational tours by the United States Customs and Border Patrol, the Texas Engineering Extension Service and the Texas Parks and Wildlife Department. Members and staff were also permitted to observe the state's response to Hurricane Alex, acting as bystanders at the State Operations Center and at the McAllen Disaster District Committee.

In addition to holding hearings and reviewing previous legislative reports, the committee has researched federal studies, state agency reports, local emergency plans, and academic works and news articles. Information gleaned from those sources has been used to enrich the committee's findings and recommendations.

Finally, the committee has identified best practices from around the state of Texas and the initiatives of other states within the union. Some of those practices and initiatives have been found to be to the benefit of Texans if expanded and encouraged by the Legislature.

It is the committee's firm intent that this report be a valuable resource for the 82nd Legislature as it seeks to improve the state's level of emergency preparedness. The committee believes that if adopted in a timely manner, these recommendations will help ensure we continue to keep Texans safe.

### **A Note About Recommendations**

The committee is aware that this report is submitted at a time of budgetary stress. As far as possible, the committee has attempted to make fiscally neutral recommendations. However, the report also contains numerous legislative recommendations that would require investment at the state and local level.

Keeping citizens safe is the primary function of government. The state should both adequately fund emergency preparedness *and* permit adequate local funding options for emergency preparedness. The reasoning is simple - the human and financial costs incurred by poor planners during major disasters (such as Hurricane Katrina) are often much larger than the costs of mitigation and preparedness. This means that the state can reap significant savings in the long term by preparing now.

Furthermore, in addition to preparedness projects ultimately saving Texas taxpayers money, those projects also create jobs, help attract businesses, stimulate innovation and enhance community life. Despite fiscal constraints, Texas must continue to fund emergency preparedness based on risk not occurrence.

---

# Section 1

*"The committee shall comprehensively study the State of Texas' preparedness level for major disasters, including those resulting from natural catastrophes and criminal activity."*

## Major Threats



---

# 1

## **HOMELAND SECURITY: TERRORISM AND BORDER SECURITY**

The violence in northern Mexico is predominantly related to rival international criminal enterprises - cartels - that are waging war against each other and against the government of Mexico. Citizens of Mexico are overwhelmingly the sorry victims of that violence. However, because Texas prepares based on risk rather than occurrence, emergencies stemming from the behavior of drug cartels needs to be prioritized. (The 2010 National Drug Threat Assessment - NTDA -indicates that Mexican cartels, in addition to being the major supplier of illegal drugs being smuggled into the United States, have an increasingly strong presence within the United States.)<sup>3</sup> Such a prioritization is shown to be further prudent when considering the linkages between Terrorism and criminal enterprise.

### **Drug Cartels and Terrorism Linked**

The State's emergency plan defines homeland security threats as, "including attacks by (1) foreign military forces and (2) terrorists with conventional, chemical, biological, nuclear, and radiological weapons."<sup>4</sup> The changing nature of cartels merits them being considered a threat to homeland security as well.

Such consideration is increasingly being undertaken by law enforcement in the state of Texas. The state's recently updated Texas Homeland Security Strategic Plan (THSSP) 2010-15 notes that the relationship between Terrorism and international criminal enterprise is now a "two way street."

"The convergence of terrorists and criminal enterprises constitutes a very dangerous threat to Texas...Terrorists use criminal activities to accrue money needed to pay for recruiting and training, and to buy false documents, weapons, explosives, and munitions...Criminal enterprises increasingly use terrorist tactics to protect monopolies, intimidate communities and law enforcement, and combat competitors."<sup>5</sup>

Recent events support this assessment. In July 2010, a car bombing in Ciudad Juarez near El Paso- engineered by a drug cartel - was "seemingly lifted from an al-Qaida playbook."<sup>6</sup> Earlier in March, an improvised explosive device had detonated without injuring anyone at a gas station in Cadereyta, a town in the northern state of Nuevo Leon.<sup>7</sup> In a February 2009 raid on a U.S. firm in Durango Mexico, armed men stole 900 cartridges of Tovex water gel explosives.<sup>8</sup>

Finally, Terrorism and criminal enterprises are linked because Terrorist organizations may have the ability to contract with Mexican Drug Cartels - who profit from human trafficking as well - in order to have their personnel and equipment transported to Texas and the United States. The lack of regard for life and law shown by cartels mean that such an assumption cannot be discounted.

The following table shows the apprehension numbers for U.S. Customs and Border Patrol from January 1, 2006 through August 10, 2010 for non-Mexican violators.

<u>Sector</u>	<u>Apprehensions</u>	<u>OTMs</u>
RGV Sector	346,973	110,064
Marfa Sector	22,080	2,429
Laredo Sector	171,455	35,712
El Paso Sector	130,876	6,192
Del Rio Sector	73,984	20,32

Source: U.S. Customs and Border Patrol

These figures support the following statement taken from the Texas Homeland Security Strategic Plan:

"Trends continue to show that the Mexican border is an avenue of choice for introducing aliens from countries of special interest (those with a known Al-Qaeda presence)...[An]increasing number of "Other than Mexicans" (OTM) from countries including Iraq, Syria, Pakistan, Iran, and Jordan...have been entering Texas illegally."<sup>9</sup>

It is obvious that Mexican drug cartels and Terrorists differ in both ideology and motivation. Terrorists (both foreign and "homegrown") tend to be animated by religious fanaticism, mental illness, and a hatred for American communities. Drug dealers partake in business for profit.<sup>10</sup> However terrorism and drug crime both produce the same ends - violence, insecurity, and economic destabilization. Considering that Texas' border with Mexico is the operational focus for cartels transporting their products to the whole nation, the increasing similarity (and possible cooperation) between terrorists and criminal enterprises should not be taken lightly.<sup>11</sup>

### **Changing Nature of Mexican Drug Cartels**

The convergence of terrorism and criminal enterprise coincides with the escalation and dissemination of violence in Mexico, and the increasingly cavalier nature of cartels operations in Texas. According to the NTDA 2010, "Mexican DTOs continue to represent the single greatest drug trafficking threat to the United States."<sup>12</sup>

Cartels have expanded their business portfolios and are now engaged in additional criminal activities such as human trafficking (which could logically include the transportation of terrorists,) prostitution, and the production as well as transportation of narcotics. This "corporatization" of the narcotic industry means that both federal border patrol agents and Texas law enforcement personnel are dealing with international entities rather than "mom and pop" enterprises.

Mexican drug cartels have the funds available to acquire military grade weapons, sophisticated intelligence equipment and (in some instances) the services of corrupt government officials. Recently -and perhaps a sign of things to come as the Gulf of Mexico becomes an increasingly important smuggling battleground - a fully operational submarine was seized from traffickers along the Ecuador-Colombia border. Indeed, drug cartels are increasingly utilizing the Texas coast for their smuggling operations.<sup>13</sup>

To quote the Texas Homeland Security Strategic Plan again:

"Texas' maritime frontier presents an opportunity for smuggling and illegal entry that can be exploited by criminal enterprises and terrorists. The state's 367 miles of coastline, with its ports of entry and vital infrastructure, requires surveillance and patrolling, as does the land frontier."<sup>14</sup>

New developments such as maritime smuggling are creating new hazards for the people of Texas, local law enforcement personnel (including TPWD game wardens) and could have a negative impact on coastal tourism. There have been multiple incidents of drug shipments washing up on the Texas coast and close calls between tourists and criminals. Signs have been placed along parts of the Padre Island National Seashore warning about criminal activity.<sup>15</sup>

As lawmakers can see, the corporatization, militarization and shifting strategies of increasingly profitable cartels poses new and unusual threats to Texans.

### Potential Emergency Scenarios

Potential Emergency Scenarios relating to criminal activity are complicated by four phenomena. First, disasters can represent "cascading hazards" whereby one hazardous incident (such an explosion at a refinery killing multiple persons) can lead to another (such as a public health emergency due to a chemical release.)

Second, when a natural disaster such as a hurricane occurs, the state's priority is to save lives of those who cannot evacuate themselves. Under the cover of a large scale evacuation, cartels may seek to exploit the opportunity to smuggle drugs and humans (including terrorists) across the border.

Third, a major catastrophic event in Mexico may have a significant impact in Texas. For example, a large explosion in a Mexican border town might lead to mass, rapid and informal migration of thousands across the border. Alternatively, an attack on a Mexican factory near the border could lead to pollutants entering Texas rivers, aquifers and airspace.



Fourth, "spill over" incidents may not be limited to border communities. Texas' big cities operate as "hubs" for transnational criminal activities. Recent Department of

Source: Congressional Research Service

---

Homeland Security initiatives have identified Dallas, Houston, and San Antonio as primary targets of transnational gang activity and associated threats to our homeland defense.<sup>16</sup>

The most likely scenarios involve cartels transplanting the strategies and actions they use in Northern Mexico into southern Texas and urban areas.

For example in January 2009, a grenade was thrown into a bar in Pharr, Texas, where three off-duty police officers were customers. Fortunately, it did not detonate. Federal investigators say evidence links this incident to grenades used in separate attacks on the U.S. Consulate and a TV station in Monterrey, Mexico.<sup>17</sup> In June 2010, local, state and federal authorities were placed on high alert when an alleged plot to blow up the main dam on Falcon Lake was uncovered.<sup>18</sup> Such an event would have severely damaged vital critical infrastructure, led to massive flooding, loss of life and economic damage.

The public debate about "spillover violence" in Texas has tended to focus on the quantity of incidents rather than their magnitude of those incidents or the potential for escalation. The reality is that there appears to be some sort of "lag-effect" in place whereby cartel strategies and tactics slowly migrate on to U.S. soil.

For example, the intimidation of small communities has become common in Northern Mexico, yet similar tactics have been used by cartels in the Texas community of Fort Hancock (outside of El Paso and home to a significant Mexican émigré population that has fled the violence.)<sup>19</sup> Similarly, a recent AP story stated that, "when Mexican drug traffickers need someone killed or kidnapped, or drugs distributed in the United States, they increasingly call on American subcontractors - American based prison gangs that run criminal enterprises from behind bars." Drug and gang related kidnapping has already become a major problem in Phoenix, Arizona.<sup>20</sup>

With that in mind, the evolution of tactics south of the border to include Improvised Explosive Devices (IEDs), Prison breaks,<sup>21</sup> coastal and riverine piracy<sup>22</sup>, media silencing<sup>23</sup>, and the kidnapping of government officials,<sup>24</sup> should be incidents Texas should strive to plan for and prevent.

*At the same time*, lawmakers should consider that it is questionable whether or not such nefarious acts would be perceived by cartels as in their interests. Such incidents - if successful would most likely be considered terrorist acts of national importance that would draw unwanted attention and focus to cartel activity in both the United States and Mexico. Such incidents would likely demand an overwhelming response from the federal government that may include increased military aid to the Mexican government and perhaps even military involvement by U.S. forces.

Though such a scenario is hypothetical, it is worth noting the power U.S. military capability may have in the minds of cartel bosses. For all the horror of Ciudad Juarez Mexico, El Paso remains one of the nation's safest big cities.<sup>25</sup> Violence is indeed spilling over, but it is not gushing over. State and local law enforcement - if adequately funded, equipped, trained and deployed - will have a similar (and in some instances more effective) dissuading capacity.

As the Governor recently said, "The reason we don't see the same type of (criminal) activity (in

---

Texas as opposed to Mexico) is the people who are willing to stand between our citizens and those who are doing harm. We've got to support them."<sup>26</sup>

### **The Problem of Response**

Texas' response to terrorism, cartels and border security concerns must continue to be as smart as it is robust if it is to prevent major catastrophes. There are no quick fixes and no easy answers.

Damage - either direct or collateral - stemming from the use of military grade weapons, is traditionally associated with conventional warfare and hostile foreign forces. Such an occurrence would likely be preceded by a period of diplomatic tension. However a terrorist act or a brazen action committed by a drug cartel would occur at an unspecified place and time with little or no warning.

Lawmakers should consider that during a period of traditional warfare, communities expect (and are expected) to make significant sacrifices due to the extraordinary nature of events. But that is not necessarily the case for those living in a peaceful society that could potentially face a major terrorist or criminal incident at some unspecified time in the future.

Lawmakers should remember that our American way of life is not protected if our way of life is *the very thing* that is sacrificed in order to protect us. Enlightened governments therefore must weigh the cost (in terms of civil liberties, quality of life, ease of movement, openness of trade, etc.) associated with sweeping preparedness initiatives.

Furthermore, simplistic or reactionary measures are seldom effective. Indeed, even successful measures often have unintended consequences. For example, the Senate Transportation and Homeland Security Committee noted in 2008 that:

"The Texas Legislature enacted laws that placed tighter controls on the precursor chemicals used to manufacture methamphetamines. This resulted in a dramatic decrease in the amount of methamphetamine labs throughout the State. However, the Mexican Cartels saw an opportunity to meet the demands of the methamphetamine users and began shipping large amounts of meth into our State."<sup>27</sup>

It would be preposterous to suggest the state should therefore have not placed such controls on methamphetamine precursor chemicals. Nevertheless, potential unintended consequences should be considered when responding to and preparing for threats. With that in mind, lawmakers should note the following points made to the committee during testimony:<sup>28</sup>

- Mexican smuggling routes have become more important due to the success of U.S. operations against drug cartels in the Caribbean.
- A significant amount of violence in Mexico can be attributed to both inter-cartel and intra-cartel fighting stemming from power vacuums created by the successful capture of drug lords by Mexican and American authorities.
- Drug seizures by U.S. and Mexican government entities spike the street price of narcotics, which mitigate (through increased per capita profits) the losses cartels make

---

when shipments are seized. This is because, seizures address drug "supply" not drug "demand." The "demand" for drugs by American citizens is the proverbial "800 pound Gorilla" in the room.

A 2010 report from the Congressional Research Service states that,

"As a result of enforcement actions in Mexico, along with increasing border enforcement measures taken by the United States, (Drug Trafficking Organizations) are finding it more difficult and more costly to control the production zones and smuggling routes. One of the consequences of this increasingly competitive environment is a rise in the level of violence associated with the illicit drug trade as the DTOs struggle for control over territory, markets, and smuggling routes. Policy makers are thus confronted with the uncomfortable possibility that increased law enforcement (which leads to increased difficulty and costs to control production zones and smuggling routes, and which in turn leads to the need to resolve disputes over such territories) could result in increased drug trafficking-related violence. This appears to be the situation that has recently developed in Mexico."<sup>29</sup>

Similarly, the tightening of federal immigration controls has "pushed" immigrants into the hands of cartels who will smuggle them into the U.S. for profit. This is because a tighter border does not address "demand" for cheap undocumented workers - only the "supply" of such workers.<sup>30</sup> The lack of legitimate avenues into the U.S. for low skilled labor combines with the poverty faced by people in Mexico and the deplorable indifference of many U.S. employers regarding the immigration status of their workforce - creating a lucrative "gap in the market" for cartels.

Finally, in a 2009 report, the Texas Border Coalition noted that:

"The (federal) investment in (illegal entry) deterrence has been greatest between the ports of entry; in contrast, the investment at the ports of entry has been relatively small...the probability of an illegal crosser being apprehended by law enforcement between the ports of entry is about 70 percent; the probability of an illegal crosser being apprehended attempting to enter the U.S. at the ports of entry is about 30 percent."<sup>31</sup>

These points are made in order to assist lawmakers as they form their opinions about an appropriate response to border security, cartel violence and terrorism. It is clear that whatever form the state's response takes, it needs to be as smart as it is robust.

## **State Capabilities**

Texas' approach to cartel or terrorist related scenarios fits within the large framework of "all hazards planning" including attacks by high threat organizations, regardless of their religious, ideological, or monetary motivations. Local, state, and federal law enforcement train and respond to a variety of threat scenarios. Furthermore, the larger local law enforcement agencies in Texas have doctrines in place to address major violent crime events and SWAT Teams that are used for an array of violent scenarios.

The Texas Department of Public Safety recently established a full time SWAT Team and is in the process of establishing tactical teams in each of the six DPS regions to augment tactical capability in the major urban areas and to provide a tactical capability in the lesser urban areas of these regions.

---

The Texas Ranger Division of DPS is currently in the process of creating a Public Corruption Unit in response to HB 2086 (passed in 2009 - see below.) The Ranger Division has also been tasked with management oversight of the department's full-time SWAT Team, proposed regional Special Response Teams (SRT's), and the department's Crisis Negotiations Unit. The Texas Rangers currently coordinate border security operations through six Ranger Staff Lieutenants assigned to six Joint Operations and Intelligence Centers (JOICs) along the Texas- Mexico border and Coastal Bend area of the state.

Texas Military Forces (TxMF) personnel serve in a supporting capacity to enhance homeland security activities along the border. The TxMF also provide training and participate in exercises to enhance rapid and long-term response capabilities, including the ability to integrate with law enforcement, emergency management, and other public safety organizations. They also provide analytic and administrative support to the JOICs. The TxMF consists of the Texas Air and Army National Guard, and the Texas State Guard, which also has Air, Army, Maritime, and Medical components.

The Texas Fusion Center Policy Council (TFCPC) coordinates Texas' statewide fusion efforts. The mission of the TFCPC is to maximize fusion capability in Texas by providing state-level coordination and policy guidance. The TFCPC incorporates fusion center leaders from across Texas who work together to establish policy guidance for collecting, producing and disseminating intelligence products and establishing and operating homeland security-funded regional intelligence centers and the recently opened Texas Fusion Center in Austin.

At the federal level, the number of Border Patrol agents has doubled to more than 20,000 since 2003; the agency's budget - \$1 billion in 2000 - may increase to \$3.58 billion in 2011. Congress recently approved funds to train more agents, deploy National Guard troops and increase drone surveillance along the border. Some federal agencies have a SWAT capability in the larger cities of Texas.

## **Progress**

Since 2005, Texas has dedicated over \$200 million in federal grants and state funding to help fill the critical gaps along the border, and is committed to providing further support to ensure adequate forces are available. Operations Border Star, Wrangler, Rio Grande, and Linebacker have demonstrated the great value of increasing and integrating multi-agency patrol presence in the border region. These programs have demonstrated that integrating the resources and efforts of local, state, and federal agencies is an operationally effective, cost-efficient means of amplifying border security and reducing border-related crime and violence.

Over the past five years, the Texas law enforcement community has made significant progress in sharing information and incorporating intelligence into core functions and processes. Texas has developed and fielded an information sharing system known as TxMAP to facilitate rapid dissemination of large volumes of information using a web-based, geospatial reporting process. TxMAP facilitates common awareness and understanding of evolving situations and provides the capability for multiple agencies to rapidly collaborate, coordinate, and take decisive action. TxMAP continues to evolve and will serve as the engine for interagency operations throughout

---

the State of Texas.<sup>32</sup>

In 2009, the Legislature passed HB 2086 which does much to combat the proliferation of gang activity in Texas including:

- Electronic supervision: Criminal street gang members who are in an intelligence database, and have been previously convicted two or more times when placed on community supervision, may be required to submit to electronic monitoring as a condition of supervision. Parole panels may also require criminal street gang members who are in an intelligence database and have been previously convicted three or more times of a felony, to submit to electronic monitoring as a condition of release.
- Information: HB 2086 increases the amount of time that information can be stored in a criminal street gang database from three to five years and modifies the information that can be contained to include evidence that the individual possessed one or more documents identifying the person as a criminal street gang member; visited a known criminal street gang member (other than a family member) while the gang member is in jail or prison; or used technology to recruit new gang members or provided a forum for communication between gang members.
- New offenses: HB 2086 amends the list of offenses for "engaging in organized criminal activity" to include escaping from custody, permitting or facilitating escape, providing a person in a correctional facility with the implements to escape, or attempts to bring prohibited substances into a Texas Department of Criminal Justice (TDCJ) correctional facility. It creates a new offense for a gang member who solicits a person under 17 into gang activity and for a person who directs the activities of a criminal street gang. HB 2086 requires that a person not associate with known gang members as part of the community supervision guidelines. HB 2086 provides that a court may impose consecutive sentences if the judgment for each conviction includes a finding that the person participated in a criminal street gang.
- Gang Free Zones: Similar to drug free zones, HB 2086 creates a mandatory penalty enhancement for engaging in organized crime activity on a school bus; within 300 feet of a public swimming pool or video arcade; or within 1000 feet of a shopping mall, movie theater, playground, public or private youth center, or property owned, leased, or rented by a school, school board, or higher education institution.
- Confiscation: HB 2086 permits property seizure from a criminal street gang or a gang member, and expands to the definition of contraband to include: property used to aid in the commission of all organized crime offenses.

HB 2086 contained many recommendations from the Senate Committee on Transportation and Homeland Security's report to the 81st Legislature.



---

## The Secure Communities Initiative

All Texas' border counties are now a part of the federal "Secure Communities" program or "ICE." (Immigration and Customs Enforcement.) ICE is designed to run fingerprint-based immigration history checks on suspects booked into local jails.

At the Harris County Jail, the program has helped ICE book 9,244 suspects into federal custody through July 31, 2010. Of those suspects, 2,191 were classified by ICE as "aggravated felons"; 4,953 were convicted of lesser felonies or more serious misdemeanors; 1,155 were convicted only of misdemeanors; and 945 were in the country illegally but had no criminal record. Of those 9,244 suspects, ICE has so far removed 7,762 from the country.<sup>33</sup> Nationwide, about 47,000 illegal immigrants have been identified through Secure Communities out of 3 million fingerprints scanned between October 2008 and June of this year. Of those, 12,293 were considered non-criminals.<sup>34</sup>

Critics argue that the program makes state employees the enforcers of federal law and that many who are deported were picked up for low level or non violent offenses. Some may have been in the U.S. for many years or have children or spouses who are U.S. citizens. Advocates of the program argue that ICE saves local taxpayer dollars and that those deported have already shown a lack of regard for Texas law by the fact that they were arrested for an offense.

The committee notes that local law enforcement personnel do not have the ability under the Secure Communities Program to process persons they suspect of being illegal immigrants while on patrol. Instead *every* person taken into custody within a (*voluntarily*) participating jurisdiction is processed.

Conversely, in Arizona, the recently enacted SB 1070 *obligates* state and local law enforcement personnel to make a "reasonable attempt" to "determine the immigration status" of a person who they have made "lawful contact" with (i.e. not limited to arrest,) and where there is "reasonable suspicion" that the person is "unlawfully present" in the United States.<sup>35</sup>

## Local Best Practices

Some of the best solutions the committee found involve expanding best practices uncovered at the local level.

- Earlier this year, the City of McAllen created a new Tactical Patrol Squad. The squad is made up of traffic enforcement, stealth and downtown bicycle units who patrol the city in practical zones that cut off the most commonly traveled routes from McAllen to the border. The aim is to dispel the mindset of many who commit cartel and drug related crimes north of the border that they merely need to escape to Mexico in order to evade justice. Recent press reports suggest criminals are rushing items stolen on the U.S. side of the border into Mexico over land ports of entry.<sup>36</sup> Smart, local policing like this prevents potential emergency scenarios from germinating by disrupting the conditions under which organized crime can flourish.

- 
- The Pharr Police Department has won praise for its role in southbound inspections on the Pharr International Bridge. In cooperation with ICE and USCBP, they set up two mobile homes, barriers and surveillance equipment and boosted communication with other local police departments in order to intercept southbound weapons, stolen goods, and bulk cash.
  - DPS has worked closely with local and federal agencies to establish contingency plans for each of the border security sectors in order to address violence. Regional catastrophic plans are in place at each of the border Regional Councils of Government.
  - The committee learned from the Harris County Sherriff's department that they are in regular contact with law enforcement officials in Mexico, sharing information that bolsters intelligence gathering. (Houston is a major hub for narcotic transportation from Mexico to the rest of the nation.) Harris County Sherriff's department also pointed out to the committee that the 2004 Madrid bombers were local criminals before they were terrorists - a fact that points to the continued importance of regular police work to identify potential threats to the community. By disrupting supply chains and revenue sources, good local policing undercuts transnational operations and opportunities.
  - In August 2010, the San Juan police in the Rio Grande Valley received a \$67,000 grant to combat gang activity. The money was used to purchase gang tracking computer software and fund officer overtime.

## **Recommendations**

The committee recommends the State Emergency Plan include cartel related activities in the definition of what a homeland security threat is.

The committee recommends that the Legislature appropriate adequate funds to state and local law enforcement agencies who operate on the state's front lines, preventing potential cartel related emergency scenarios by limiting the conditions in our communities under which such scenarios might arise.

The committee recommends that the Legislature explore ways in which strategic local increases in law enforcement presence bolster the rule of law and encourage residents to report suspicious behavior.

The committee recommends that the Legislature appropriate adequate funds to aid regional SWAT and Tactical Squad capabilities.

The committee recommends that the Legislature memorialize Congress to provide adequate funding to USCBP and National Guard operations along the border.

In addition to measures that disrupt the "supply" of narcotics, the committee recommends that the Legislature increase efforts to reduce the "demand" for narcotics - such as by

---

appropriating adequate funds for substance abuse treatment programs, drug education programs and drug courts.

The committee recommends that the Legislature memorialize Congress to supplement the state funds available to state and local law enforcement personnel.

The committee recommends that the Legislature consider how southbound checkpoints could assuage the illicit flow of money and weaponry into Mexico from Texas without unreasonably harming trade.

The committee recommends that the Legislature consider entering in to agreements with other states that would enable Texas to send known gang members out of state for confinement - if such agreements would help to disrupt gang operations from within Texas prisons.

The committee recommends the Legislature authorize TDCJ to tighten the communication privileges of known gang members during incarceration.

The committee recommends that the Legislature investigate further whether or not Texas prisons have become fertile grounds for continued drug and gang related operations.

The committee recommends that the Legislature consider how best practices outlined in this chapter can be expanded statewide where such an expansion would be beneficial.

---

## 2

### HURRICANE PREPAREDNESS

Texas' two "nightmare scenarios" involve hurricanes. One would be a primarily industrial disaster, the other a primarily human disaster. The first is a category 3+ hurricane that made a direct hit on the Houston-Galveston industrial corridor. The second is a category 3+ hurricane that made a direct hit on the Lower Rio Grande Valley (LRGV.)

Two issues would make those respective scenarios nightmarish:

1. The storm surge vulnerability of industry along the Houston Ship Channel
2. Evacuation and infrastructure complications for communities along the LRGV

Solutions to either of those problems will require extensive investment. However, because hurricanes will continue to pound Texas in the future, a return on those investments would be inevitable. Conversely, the cost of doing nothing could be astronomical.

#### Lower Rio Grande Valley Scenario

The LRGV hugs the border with Mexico near the mouth of the Rio Grande. Technically a delta or floodplain, the LRGV is home to over one million people and is one of the fastest growing regions in the state. Despite decades of population growth and urbanization, infrastructure has not kept pace.

The LRGV is not connected to the rest of the state or nation by an interstate highway. Instead, two four-lane U.S. highways (U.S. 77 and U.S. 281) run north out of the LRGV

connecting to IH-37 North West of Corpus Christi. Another U.S. highway (U.S. 83) runs east to west connecting the major cities of Brownsville and McAllen with IH-35 at Laredo.



IH-45 during Rita Evacuation

Both Laredo and San Antonio – the likely destinations for LRGV evacuees during a hurricane – are over 200 miles away. During an evacuation, massive delays along highways would be inevitable.

Consider the following: During Hurricane Rita, over a million residents from the Houston-Galveston area were forced to sit in traffic for up to ten hours en route to the Dallas-Fort Worth

---

area on IH-45 (despite contraflow being authorized (see below). Unlike evacuations routes serving the LRGV, IH-45 is between 4 and 10 lanes wide with access roads.

It is hard to imagine how a large scale evacuation of the LRGV would go more smoothly - especially in light of the following:

- During the evacuation for Hurricane Rita, a major bottleneck was experienced on U.S. 290 near Brenham where westbound traffic narrows into one lane.<sup>37</sup> A similar scenario exists at the junction of U.S. 83 and U.S. 281, which may severely impede the evacuation of communities along U.S. 83.
- Federal checkpoints do not necessarily cease operations during voluntary or mandatory evacuations, which would slow traffic flow further. The checkpoints at Sarita (U.S. 77) and Falfurrias (U.S. 83) are only used to processing 10,000 vehicles in 24 hours. During an evacuation they may have to process 130,000+ vehicles.<sup>38</sup> In 2006, the Governor's Task Force on Evacuation, Transportation and Logistics recommended that Texas work with the U.S. Customs and Border Patrol to expedite the flow of traffic through checkpoints during an evacuation.
- Contraflow authorization would be complex and limited. Large amounts of state resources would still need to be positioned in the LRGV during the build up to a hurricane. (See Chapter 8.)

Furthermore, the most obvious destinations for evacuees – San Antonio and Laredo – lack the accommodation (hotels and permanent shelters) and other mass care resources needed in order not to be overwhelmed by human needs during a large scale evacuation.<sup>39</sup>

The difficulties of evacuating north could lead – if panic set in – to large numbers of U.S. Citizens evacuating south into Mexico, perhaps without proper documentation authenticating their U.S. citizenship.

### **Reluctance to Evacuate**

Cameron and Willacy counties are the only two coastal counties in the United States where residents have to pass through an immigration check point in order to evacuate. The large number of undocumented immigrants in the LRGV – many who have resided for decades, are married to U.S. citizens and/or have children who are U.S. citizens - would likely be very reluctant to evacuate.

Committee members hold various opinions about undocumented immigrants, however the reality is that they would be part of a larger population of LRGV residents who would choose to shelter in place during a major hurricane. That population includes U.S. citizens with undocumented relatives, and significant numbers of elderly and disabled residents (along with their care providers.) During Hurricane Dolly only 23,000 persons evacuated.<sup>40</sup> (It was a voluntary evacuation.)

---

## Post Disaster Issues

A large population of LRGV residents that choose to shelter in place would thus represent a humanitarian concern for the state of Texas. It is no overstatement to suggest that – due to infrastructure and evacuation issues – a category 3+ hurricane in the LRGV is a Hurricane Katrina type event waiting to happen. In order for that not to be the case, the state should act sooner rather than later.

As numerous flooding events have shown, the LRGV has inadequate flood mitigation and drainage infrastructure to guarantee the safety and health of a population that sheltered in place during a major hurricane. Hurricane Alex produced only tropical storm conditions in the Rio Grande Valley however it caused over \$4 million of damage to drainage infrastructure in Hidalgo County alone. Thirty-eight 3,000-pound sandbags had to be deployed via helicopter to shore up the levee system in Hidalgo County.<sup>41</sup>

Large amounts of standing water would leave those who sheltered in place vulnerable to water and insect born diseases. Hurricane Alex in June/July 2010 led to an explosion in the population of mosquitoes in the LRGV and meant state funding had to be expedited to combat infestation.<sup>42</sup> Poor drainage would also inhibit the movement of people to aid and of aid to people after a major disaster.



Aerial view of water ponding from Hurricane Alex

While hypothetical, these scenarios are worth bearing in mind as the state prioritizes transportation and infrastructure projects in the future. Both Hurricane Katrina (due to inadequate planning) and Hurricane Ike (due to its unusual size) exceeded expectations and wrought havoc as a result. Texas must continue to plan and invest based on risk not occurrence.

## Houston Galveston Industrial Sector

Though both tragic and costly, Hurricane Ike was by no means the worst case scenario for the Houston Galveston area. Rice University's Severe Storm Prediction, Education, and Evacuation from Disasters (SSPEED) center recently released an interim report claiming that:

"Hurricane Ike...devastated portions of the Houston/Galveston coastal area causing over \$30 billion in damage and dozens of deaths.... Yet with all this destruction, the Houston/Galveston region is fortunate. If Hurricane Ike had hit 30 to 50 miles down the coast, the devastation would have been remarkable; the cost

could easily have exceeded \$100 billion." (I.e., more money than state government spends over the course of a year.)<sup>43</sup>

The Texas Gulf Coast is home to at least 150 industrial businesses with a total value of over \$15 billion; this represents about half of the nation's petroleum processing capabilities. These businesses are concentrated around Texas City and the Houston Ship Channel.

About one-third of U.S. tanker traffic travels through ports along the upper Texas coast, and the state's coastal regions contain more than one-quarter of the country's gasoline refining capacity. A 2007 study said ship channel-related businesses contribute to more than 785,000 jobs throughout Texas while generating nearly \$118 billion of statewide economic impact.<sup>44</sup>

Refineries and chemical plants along the Houston Ship Channel are typically protected to the mapped flood plain elevation of approximately 14-15 feet - an elevation only a few feet higher than that experienced during Hurricane Ike and ten feet lower than a reasonable worst case surge of about 25 feet from a Category 4+ storm.<sup>45</sup> During Ike, the Texas City Dike was severely damaged and overtopped in several places.<sup>46</sup> The storm surge would be greater from a Category 4+ storm. Combine with severe winds and rainfall, surging water could lead to spills of hazardous material, electrical fires and business closures.

The U.S. Coast Guard estimates that a one-month closure of a major port like Houston would cost the national economy \$60 billion. Those figures are a sobering reminder regarding the amount of economic damage that could be wrought on the state and nation if federal state and local funds are not invested in projects that would mitigate storm surges from major hurricanes.

### The Ike Dike Solution

The committee heard from Professor William Merrell (Texas A&M University at Galveston) who advocates for a large scale structural project which has been termed the "Ike Dike." The Ike Dike would furnish the Houston Galveston area with a "Coastal Spine" made up of sea walls, dikes and dutch-style floodgates.<sup>47</sup>

Environmental groups have already expressed opposition to the idea of floodgates due to the possibility of them interfering with wildlife migration.<sup>48</sup>



Source: William Merrell

Unease has also been voiced about the costs associated with such a massive project. Committee members expressed concerns about where water that was repelled by the "Ike Dike" would go. Merrell replied,

"If you look at my designed barrier – along the coast – relatively straight line – there are virtually no edge effects. The surge is a forced wave gripped by the hurricane so it just relaxes when the winds move on and

it's held at the coast by the Ike Dike. The idea of the Ike dike is to keep the water out of the entire Bay. If one allows surge into the Bay and mucks around with dikes to protect certain assets, the surge will indeed be worse elsewhere – you're taking area out of the flood plain, causing channeling, wave reflections and interactions, etc."<sup>49</sup>

Merrell also cited the cost of such a project - \$2-3 billion - dwarfs the cost of damage caused by Hurricane Ike and future hurricanes.

### "Zone-specific" Solutions

"Zone-specific solutions" - advocated by SSPEED - represent a customized approach based on the notion that each zone around the Houston-Galveston area is geographically unique and as a result must be taken into consideration when designing a landscape. It would involve sea gates and levees as well, but not on the same scale as the Ike Dike proposal. (A small sea gate would be installed at the mouth of the Houston Ship Channel in Galveston Bay rather than large gates along the coast.) Instead, a number of nonstructural solutions would be utilized.



Source: SSPEED

Non-structural mitigation strategies are those that do not necessarily require the construction of structures such as levees, dikes or other physical impediments to flood waters. Instead, non-structural alternatives rely on planning strategies such as land acquisition, buffer zones, building elevation, building codes and other local regulations.

For example, SSPEED's interim report considers limiting flood insurance to residents in surge prone areas such as Galveston Island and the Bolivar Peninsula:



---

"In such cases, one approach might be to allow coverage until the next major claim, then offer a buy-out or the opportunity to rebuild without federal insurance. In this manner, taxpayers would no longer be subsidizing expensive development in high risk zones."<sup>50</sup>

Discouraging development in surge prone areas could lead to the creation of large national parks (like Padre Island National Seashore in South Texas) on the Bolivar peninsula and Follett's Island which would also double up as natural storm surge barriers for Houston Galveston Area residents located inland.

## **Progress**

In 2010, the Gulf Coast Community Protection and Recovery District, Inc. (GCCPRD) was formed as a joint venture between Brazoria, Chambers, Galveston, Harris, Jefferson and Orange counties. The committee heard from the GCCPRD 's president (former Harris County Judge) Robert Eckels.<sup>51</sup> The GCCPRD was proposed by the Texas Governor's Office after a series of public hearings on the recovery from Hurricane Ike. The six-county corporation is directed by member county judges and will eventually elect three at large members in addition.

The GCCPRD is a regional initiative that pools the resources of multiple counties and will try to develop regional planning and funding solutions to storm surge issues. Due to the cost of storm surge mitigation projects and the national implications associated with continued vulnerability, it is both necessary and fair to target federal funding sources. The GCCPRD will study and recommend numerous structural and non-structural solutions that have been proposed and which offer varying levels of protection to the Houston/Galveston region from surge flooding.

Passed in 2009, HB 1831 authorized county judges and/or mayors who order the evacuation of an area stricken or threatened by a disaster to compel persons who remain in the evacuated area to leave. County Judges and Mayors are allowed to use reasonable force to remove them and the person who is rescued is civilly liable for the costs of rescue efforts under certain circumstances.

Several communities have made significant strides toward mitigating flood damage. (More information is available in Chapter 4.)

The House Select Committee on Hurricane Ike Devastation to the Texas Gulf Coast recommended that the 81st Legislature, "designate the GLO as the agency responsible for cleaning, maintaining, and clearing debris from any public beach that is located within a county or municipality that has been included in a disaster declaration made by the governor."<sup>52</sup> The 81st Legislature granted the GLO this authority. The GLO now pre-contacts for debris removal so that contractors can be activated quickly after a storm.

## **Recommendations**

The Committee recommends that the Legislature memorialize congress to complete Interstate highway and high speed rail projects connecting the Lower Rio Grande Valley with the nation's highway and rail system.

The Committee recommends that the Legislature require TxDOT to prioritize the state's role in the development and completion of IH-69.

---

The Committee recommends that IH-69 be built in such a way as to allow for speedy contraflow execution.

The Committee recommends that the state work with the federal government to manage or move immigration checkpoints in such a way as to facilitate evacuation.

The Committee recommends that the state store a greater quantity of its emergency preparedness equipment cache in the Lower Rio Grande Valley and other hurricane prone areas in order to alleviate the need to pre-deploy vast quantities of hardware (at great cost) before anticipated emergencies.

The Committee recommends that Rio Grande Valley communities consider the model exhibited by the Gulf Coast Community Surge Protection and Recovery District as a tool for funding regional solutions and securing federal funding for flood mitigation projects.

The Committee recommends that the Legislature provide funding for the Gulf Coast Community Protection and Recovery District and encourage similar districts in other hurricane prone areas.

The Committee recommends that the Legislature fund (or allow businesses and municipalities to fund) as soon as possible any temporary improvements that can be made to levees protecting industry along the coast.

The Committee recommends that the Legislature memorialize congress to provide funds for storm surge mitigation projects along the coast.

---

# 3

## PANDEMICS AND PUBLIC HEALTH PREPAREDNESS

Public health preparedness was not considered a vital function of emergency management before the September 11th terrorist attacks and subsequent anthrax attacks in 2001. Therefore, public health preparedness and response is continuing to evolve both in terms of culture - in the sense of being considered a vital part of government by the public - and infrastructure - meaning the continued development of capacities and strategies for handling public health emergencies.

A Public Health Emergency is the occurrence or imminent threat of a health condition caused by bioterrorism, an epidemic or pandemic disease that poses a substantial risk of multiple human fatalities or incidents of permanent or long-term disability.<sup>53</sup>

As such, public health preparedness is as much about *morbidity* as it is about *mortality*. Public health emergencies have the potential to inflict significant physical suffering and mental anxiety on people in addition to fatalities and economic losses.

Proper preparedness therefore does not only mitigate significant loss of life but also significant reduction in the *quality* of life - both for individuals and communities. Understanding this is key to understanding the value of public health preparedness and the vulnerabilities that communities expose themselves to if not prepared.

Because a public health emergency may affect a large area or specific population, the state must shift the focus of services from treating individuals “one at a time” to managing the health and medical needs of the entire population. That means prioritizing actions such as disease detection, epidemic control (including isolation and quarantine) public order, mental and behavioral health needs, trauma care, and medical special needs services. A successful response in the future will require the development of integrated regional emergency health capacities, and systematic cooperation between private and public health entities.

A comprehensive study of public health preparedness is worthy of a select committee in and of itself. The Department of State Health Services has produced extensive reports on preparedness including post event evaluations for hurricane seasons and the H1N1 pandemic influenza. Therefore, this chapter will focus on the bigger picture and how it pertains to the Legislature.

### Summary of Potential Public Health Emergency Scenarios

While there exists various degrees of public health threats - such as localized food borne illness outbreaks or whooping cough - there are three major public health scenarios lawmakers should consider:

1. Pandemic Infectious Disease. Pandemic Flu is, along with a Category 4+ hurricane, the greatest threat to the State of Texas.<sup>54</sup> A pandemic influenza outbreak would span

---

multiple jurisdictions and regions and require a comprehensive emergency response strategy.

2. A "Mass Casualty Incident" (MCI) resulting from a CBRNE event. (Chemical, Biological, Radiological, Nuclear, and Explosion.) CBRNE events might include a passenger plane crash or an act of bioterrorism. Developing local "surge capacity" - so that medical services can be rapidly made available to a multitude of people - is vital in order for local medical infrastructure to cope with a rapid influx of injured persons.
3. Public health aspects of natural disasters. Public health issues can be acute after certain types of disasters. For example, after a hurricane, vector control and water borne illnesses may be prevalent (and may be coupled with decreased access to medical services.) Decisions as to how and when to implement disease control measures will be made on a community-by-community basis. State government will provide support and guidance to state and local officials regarding the efficacy of control measures.

## **Pandemic Flu**

Lawmakers should consider the following factors regarding pandemic preparedness:

### **1. Containment and Public Order**

The response to a pandemic must have as its goal a reduction in death and disability. However, like preparations for a hurricane, the response to a pandemic is partially an exercise in damage limitation. DSHS assumes that, "it is highly unlikely that the most effective tool for mitigating a pandemic (a well matched pandemic strain vaccine) will be available when a pandemic begins."<sup>55</sup> Initial response measures to H1N1 needed to be flexible as the characteristics of the pandemic were being studied at the same time as a response was being implemented.

In the event of a severe and deadly pandemic, such as the Spanish Flu of 1918, public order and disease containment would be the two most vital considerations regarding the state's response, while a suitable vaccine was pending. DSHS would attempt to implement disease control measures that are most effective and least restrictive as a starting point. However, local authorities may also utilize novel remedies such as road blocks, checkpoints and quarantine zones. (Texas Military Forces would in that case provide manpower in supplement to DPS, TxDOT personnel.)

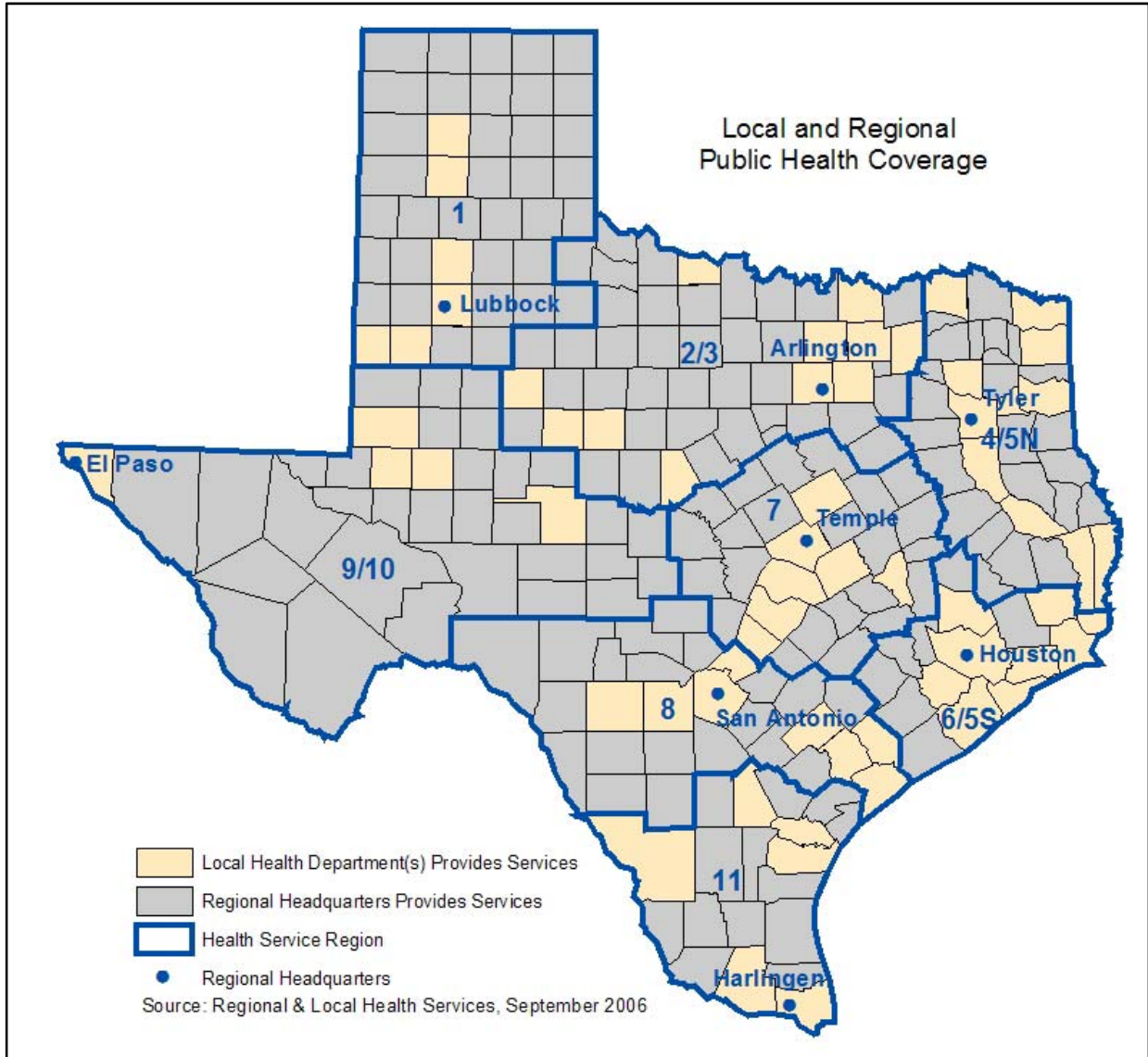
To underline the seriousness of pandemic preparedness it is worth considering that the Senate Committee on Health and Human Services Interim Report to the 81st Legislature recommended that in the event of a pandemic, the state should, "immediately allocate security forces to secure hospitals and clinics," because, "limited supplies of vaccines and other supplies, as well as limited hospital capacity, could incite riots and encourage other criminal behavior."<sup>56</sup>

As one might expect, such occurrences would represent a drastic (though hopefully temporary) transformation of public and private life in Texas. With that in mind, investing substantially in the state's ability to mitigate and respond to a pandemic seems both responsible and attractive to

the committee.

## 2. Collective Responsibility

Texas is proudly a home rule state, with cities and counties exercising much authority over the affairs of their residents. Public health is organized within the principle of home rule under the Local Public Health Reorganization Act. Counties and cities may or may not create a local health department (LHDs) and appoint a local health authority (LHA).



Source: DSHS

An LHA is a physician appointed to administer public health laws and has considerable power to initiate control measures for diseases including enforcing quarantine for individuals and communities. Though health authorities have to be licensed physicians, counties and cities are

---

more or less free to appoint whomever they wish - the physician could be an experienced epidemiologist or a young family doctor. DSHS has limited authority over LHDs (apart from the distribution of grant funds.)

An LHD may be set up by a city, a county or as a collaborative effort between neighboring cities and counties (a public health district.) Cities and Counties may also delegate local health authority to a qualifying person if the head of an LHD is not qualified. This leads to a rather patchwork organizational structure. For example, the City of Dallas has no health department while the County of Dallas does. However, both Harris County and the City of Houston have health departments. The City of El Paso has a health department which serves the county as well. The South Plains Public Health District serves the Counties of Terry, Yoakum, Gaines, and Dawson. Some counties and cities do not have health departments leaving the DSHS Health Service Region (HSR) to fill the gap.

Lawmakers can see that there is clearly room for confused communication and coordination during a public health emergency due to the numerous overlapping ways in which public health authority can manifest.

The recent H1N1 influenza pandemic exposed many of the shortcomings related to coordination of jurisdiction between state, local and federal health authorities. (See below.) But because H1N1 failed to evolve grimly, it offers DSHS and the whole Texas medical community a free window into the structure and capabilities of the state's healthcare, public health, and emergency management systems.

DSHS will be reviewed under the Sunset Advisory Review Process in 2012-13. This will provide a tremendous opportunity to consider ways in which public health preparedness structures could be standardized, centralized and funded in order to improve coordination, chains of command, long term planning and the efficient marshalling of capabilities within a public-private industry.

One thing both lawmakers and the Sunset Advisory Commission should consider is that home rule is not an effective principle during a public health emergency. Home rule works as a principle because it keeps state government and other communities from unnecessarily encroaching on a locality's affairs. It *also* assumes that a community is responsible for its own preparations - and that if it doesn't prepare, it is only to the detriment of that community rather than others as well. But that logic does not work when applied to public health emergency scenarios.

For example, if an isolated but flood prone community prepares poorly for flooding - and then gets flooded - it is essentially that community's problem. However, if a community prepares poorly for a pandemic, it is essentially every other community's problem as well due to the infectious nature of the threat. The lack of a standardized and accountable approach to public health preparedness puts communities at risk. In a very real sense, the state's response to a pandemic is only as strong as its weakest link.

Lawmakers and the Sunset Advisory Commission should remember that the state has a more centralized approach to other threats, such as hazardous materials or oil well exploration due to

---

the perception that the home rule principle may not offer enough accountability and that a lack of professionalism could lead to issues that individual counties or cities would not have the resources to solve on their own. A similar approach to public health preparedness needs to evolve.

### **3. Texas' Health Floor**

Texas' health floor - the overall picture of the general health of all Texans under normal conditions- includes factors such as age groups, obesity rates and the number of people with permanent disabilities. To develop an effective response plan, the state and locality must consider the unique needs of its own population. (For example, people with chronic conditions may require additional care such as specialized medications, equipment, and other assistance.) Lawmakers should note that in Texas, 7.3% of adults report having asthma, 9.7% diabetes, 6.1% heart disease, and 2.5% have had a stroke. In addition, 19.2% report a limiting disability and 66.2% are overweight or obese.<sup>57</sup> Over 5 million Texans do not have health insurance. Because a healthy population is more resilient in public health emergencies, any policy that reduces preventable chronic conditions and supports the system of health care and public health is making a direct contribution to public health preparedness.

### **4. Border Considerations**

Texas's long international border places the state in a vulnerable situation to international public health emergencies. The enormous volume of traffic and goods passing through land ports of entry creates opportunities for the spread of multiple infectious diseases transported by people, livestock, or produce. Coordination between the Center for Disease Control (CDC), local health departments, HSRs and Mexican medical authorities is key to monitoring public health threats along the border.

### **5. Federal Funding**

Public health preparedness is predominantly funded by inconsistent federal grants and programs. Two primary sources of federal funding provide the resources needed to sustain public health preparedness programs across the state. One focuses more specifically on public health (Public Health Emergency Preparedness - PHEP) and the other on health care systems (Hospital Preparedness Program - HPP). The PHEP includes several sub programs such as the Cities Readiness Initiative (CRI) and the Early Warning Infectious Disease Surveillance (EWIDS) system which supports surveillance and epidemiology-related activities along the U.S.-Mexico border.<sup>58</sup>

DSHS allocates the majority of federal funding to the Health Service Regions (HSRs -which are congruent with two or three disaster districts) and LHDs to conduct activities at the regional and local levels, regularly evaluating their activities and progress toward meeting selected performance measures. Currently, there are eight health service regions across Texas using PHEP funds to strengthen preparedness infrastructure in counties not served by a local health department. PHEP funds have been used to fund planning, training, and exercising of all hazard plans and responses to specific scenarios, as well as purchasing communication, surveillance and

---

tracking equipment and medical supplies.

Funds are also used to pay salaries, allowing DSHS regions and local health departments to put more boots on the ground in terms of epidemiologists, laboratorians and other preparedness staff. Indeed, public health "capacity" often means expenditures on personnel rather than equipment.

However, federal funding is not constant which jeopardizes those positions. For example, in FY2010 DSHS received a dramatic increase in funding due to the H1N1 pandemic scare. (The Public Health Emergency Response (PHER) Grant.) Because funds do not simply go towards equipment and overtime, subsequent dips in funding may mean that the state needs to increase appropriations in order to prevent layoffs of key preparedness personnel. Layoffs would mean that during the next pandemic, the search (possibly scramble) for suitable employees would have to begin again - an obvious drain on time and resources.

### **Department of State Health Services**

DSHS serves as the lead state agency for public health preparedness in Texas. DSHS is responsible for Emergency Support Function (ESF) 8 of the State Emergency Plan - "Health and Medical Support" - one of the most important and broad ESFs in the state plan, containing several sub plans addressing issues such as pandemic response and disaster mental health. DSHS also has support functions for the medical aspects of other types of emergencies including the Crisis Incident Stress Management and Disaster Behavioral Health programs. (See Chapter 5.)

Health Service Regions (HSRs) serve as extensions of the DSHS Austin office, supporting LHDs located in their respective regions. The majority of federal funds are passed down by DSHS to HSRs and LHDs for building local preparedness capacities. (74% of PHEP funds and 85% of HPP funds.) For counties without an LHD, HSRs often serve as the health department with DSHS regional medical directors serving as the LHA. When that happens, HSRs are responsible for public health preparedness across a very large area geographic area, making coordination and distribution difficult.

Even when rural communities have health departments, they confront unique challenges that affect their ability to prevent, serve, and respond to the public's needs during disasters. They often have a small number of staff and narrow range of occupations and expertise, which may limit the services that they are able to provide. For example, rural LHDs are less likely to conduct several types of epidemiology and surveillance activities as compared to larger urban LHDs

### **Structures in Action: Medication Distribution and H1N1**

During a Pandemic, large amounts of medications will likely be required. DSHS manages the Texas Strategic National Stockpile Plan (Appendix 8 to Annex H of the State Emergency Management Plan). The Strategic National Stockpile (SNS) is a national supply of antibiotics, chemical antidotes, antitoxins, anti-virals, life support medications, intravenous administration supplies, airway maintenance supplies, and medical and surgical material, for use in a biological



---

or terrorism incident or other major public health emergency. Local, regional and state supplies of pharmaceuticals and medical material will be immediately assessed and will be the first to be used in an organized response. Supplies may become rapidly depleted, thus requiring consideration of requesting SNS assets.

Planning for the receipt, distribution and dispensing of SNS materials is a complex undertaking with responsibilities at the local, regional and state level among multiple agencies and organizations. Decisions to initiate a request for pharmaceuticals and medical materials are made on a community-by-community basis by local health authorities in coordination with county judges, mayors, emergency management coordinators and state health officials.

During H1N1, the CDC purchased vaccine once it became available and distributed it to the states. DSHS was then responsible for distributing it locally. DSHS created a public-private partnership to allocate the vaccine to LHDs, individual physicians, chain and family run pharmacies and other providers such as schools. (Previous plans had relied on local health systems working with volunteers.) 12,000 Texans registered for the vaccine and by May 2010, over 8.5m doses had been distributed to Texas providers.

While vaccine distribution was successful during H1N1, other aspects of the response - particularly at the local level - could be improved:

- Media, interest was high and media relations (an area LHD staff are not necessarily trained in) was of upmost importance for public confidence. Disseminating timely, consistent, and accurate information to public and private sector stakeholders, the media, and the general public is one of the most critical facets of pandemic influenza preparedness and response.
- Some county judges, mayors, city managers and even hospitals were not used to LHDs taking the lead in an emergency situation. This caused friction and confusion in some areas.
- Some LHD staff were not familiar with typical preparedness practices such as Incident Command Systems. More training could address a lack of familiarity.

In addition to a more standardized local health system the state should consider other actions that may enhance preparedness for pandemics and CBRNE incidents:

- Social Distancing: According to DSHS, there are a number of specific Non-pharmacologic intervention (NPI) strategies which may be applied to stem the spread of influenza. Those include proper coughing etiquette and hand-washing, isolation of ill individuals, voluntary home quarantine of those exposed to ill or with probable flu, closing schools and childcare programs, canceling public events, staggering work hours or telecommuting, and developing workplace absentee policies that support adherence to non-pharmaceutical interventions.<sup>59</sup>

Education is key to furthering the effectiveness of these strategies. Items such as

---

voluntary home quarantine and telecommuting could be encouraged by greater statutory protections for sick employees or employees with sick children.

- Home medical kits: The state should press the CDC into coordinating with the state of Texas on a home "medi-kit" program that would allow small caches of antibiotics to be stored at home residences in preparation for a bioterrorism attack. Such kits could be stored indefinitely and would mitigate the need for rapid mass distribution of medicine *after* a bioterrorism attack.<sup>60</sup> The committee heard that pilot programs have shown that residents are overwhelmingly responsible with home medi-kits and their contents. Such a program could be limited to critical infrastructure employees, first responders and state workers to ensure continuity of government and response efforts in the face of an attack.

### **DSHS Response Capabilities**

The primary response structures of DSHS are the MACC (Multi Agency Coordination Center) and a variety of deployable teams. The MACC and deployable teams are staffed through a manpower pool of DSHS employees, as well as staff from other agencies across the HHSC enterprise. There are 595 DSHS/HHSC positions roistered for the public health response to disasters.

The MACC is the operational arm for the DSHS responsibilities under ESF8 and supports the State Operations Center (SOC), HSRs and other DSHS staff during an emergency. The MACC is NIMS compliant and works closely with TDEM to meet health and medical needs during disasters.

When a catastrophic event with the potential for mass fatalities occurs, DSHS may activate the MACC. The MACC is the hub of the DSHS response staff and resources during disasters, maintaining contact with the impacted jurisdiction, monitoring the incident, facilitating the processing of local requests for assistance, and acting as a liaison between the state, other states, federal entities and private organizations. It is located on the DSHS campus in Austin and has five teams (367 members) roistered for operation. The MACC was created in 2005, after the back-to-back impacts of Hurricanes Katrina and Rita. Using the MACC, DSHS has made major advances in its ability to coordinate with state and local partners, in both the public and private sectors, to strengthen the state's public health infrastructure and improve the ability to respond to health and medical emergencies.

Although many resources are rapidly purchased from private vendors during an emergency, DSHS also maintains a verity of critical supplies and equipment that can be rapidly deployed to meet the needs identified by the impacted jurisdictions. In certain disasters or public health emergencies, DSHS may determine the need to preposition State assets. DSHS is able to activate many different types of teams that employ state assets to local incidents including ambulance staging teams, Disaster Mental Health teams and Disaster Mortuary Services Teams.

DSHS has numerous other deployable teams (discussed in chapter 5) which are able to assist localities during a disaster.

---

## Surge Capacity

Texas' shortcomings in medical infrastructure are exacerbated during a disaster. 187 of Texas' 254 counties are considered to have a Primary Care Physician shortage and over 200 hospitals regularly experience a shortage of nurses.<sup>61</sup> During a major public health emergency, such shortages will be highly evident. Furthermore, Texas has a large number of uninsured persons (over 5 million) meaning that emergency rooms could be overrun with uninsured persons seeking treatment during such a pandemic.<sup>62</sup> It is at best unclear as to how recent federal healthcare legislation will affect Texas' medical limitations.

At the same time, Texas also has huge medical capacity -much of it state owned and operated - that if properly marshaled could be effectively deployed during a disaster. This chapter has already discussed how DSHS teams can efficiently deploy state medical assets to disaster areas. However, there are other aspects to surge capacity planning that need to be considered due to the private nature of most health care infrastructure in the state.

First increased medical capacity (both private and public) would undoubtedly improve surge capacity issues. This committee concurs with Senate Transportation and Homeland Security Committee's 2008 interim report that "Disasters and emergencies are placing an ever-increasing burden on hospitals, health care providers, and the larger health care system" and that "Healthcare systems cannot provide adequate care to disaster victims and evacuees if they cannot provide a sufficient level of care under normal circumstances."<sup>63</sup>

However increased capacity alone is not a solution - procedures need to be in place to *utilize* capacity. For example, hospital staff numbers are likely to be affected by a disaster. The State Emergency plan states that "Over the course of the pandemic, up to 50 percent of the work force may be absent due to illness, caretaking responsibilities, fear of contagion, loss of public transportation, or public health control measures. Local government and private industries must plan for the continuation of critical community infrastructure and services due to employee absenteeism."<sup>64</sup>

Furthermore, because most hospitals are privately run the state does not have the authority to require them to stay open during an emergency or disaster. If an open hospital is a participant in Medicare, it must take all persons. However, if closed (perhaps due to mandatory evacuation orders) DSHS cannot order a hospital to open. The Texas Disaster act does allow for the governor to commandeer private property during a disaster (including hospitals subject to compensation requirements) however, neither the Governor nor DSHS has the authority to order private hospitals employees to work.<sup>65</sup>

Such considerations make planning, mutual agreements, deployment plans and suitable provisions for first responders and their families essential.

According to the Texas Homeland Security Strategic Plan,

"Public health departments and hospitals at the state, regional, and local levels have developed flexible plans for response and recovery in the event of a disaster or public health emergency. These plans include detailed preparations to rapidly administer vaccines and other pharmaceuticals, track hospital bed

---

availability, conduct medical evacuations, deploy medical assets, and develop the capacity to provide care in alternate care sites. The state is working toward fully integrated response and recovery plans across all jurisdictions to ensure that public health and medical response capabilities are available to local jurisdictions statewide, and a back-up system of mutual and state aid stands ready for surge situations."<sup>66</sup>

The state should continue to work toward creating fully integrated plans so that it can boast of a "Texas Disaster Medical *System*" that is statewide, regionally based and that integrates public health, health care and medical emergency response. Such a system would allow one region in Texas to respond to another in case of an emergency. It would also make Texas the nation's leader in public health preparedness meaning that the state could respond to public health emergencies in other areas of the nation and train other states' medical preparedness capacities. Out-of-state deployments and the provision of training to others would be reimbursable expenses - Texas could use these funds to offset the costs of initial investments made by the state in a disaster medical system.

### **Hospital Plans**

Hospitals play a vital role in disaster response, especially MCIs, where there would be very little time to assemble and deploy medical teams. Hospitals engage in collaborative planning, training and exercises to address emergency surge issues, communications, and integration with other responders in the region and with the state.

Under the direction of DSHS, trauma facilities are required to have a local Mass Casualty Plan and know how to activate additional resources within a Regional Advisory Council (RAC - an organized group of healthcare entities and other concerned citizens who have an interest in improving and organizing trauma care within a specified Trauma Service Area.) Each facility must have policies and procedures in place to open critical care beds in the event that there is an MCI. A number of web based communication tools are employed to share and track information such as available bed space.

During disasters, the DSHS MACC works with the Health Service Regions and the EMS Trauma Regional Advisory Councils to coordinate health and medical issues. The MACC coordinates this activity through several means including but not limited to conference calls, utilization of internet based communication tools and by direct contact with teams that respond and report back to the MACC. Regional Medical Operation Centers facilitate local coordination during a disaster

Hospitals are required to have interoperable communications with their local Emergency Operations Center. Of the approximately 600 hospitals in Texas, 528 have interoperable communications as required by the Hospital Preparedness Program (much of the funding being from the U.S. Department of Health and Human Services.)<sup>67</sup>

The committee spoke with Parkland Hospital in Dallas. Parkland participates in the regional disaster planning activities coordinated by the North Central Texas Trauma Regional Advisory Council. The goal is to breakdown the existing "silos" in the community and build community partners to leverage response capabilities."<sup>68</sup>

---

During Hurricane Katrina, Parkland established an alternate care site in the parking garage of the Dallas Convention Center. A temporary hospital and medical/surgical/pediatric and OB clinic were set up. Approximately 8000 individuals were evaluated and treated at the site over a two week time frame. This prevented the EMS 911 System and local emergency departments from becoming inundated with evacuees from New Orleans and Houston.

Parkland's disaster plan also has resources to assist employees in developing a family response plan. Parkland has learned that by assisting their employees to plan for emergencies, employees will assist Parkland in sustaining operations during a disaster response.

During a disaster, the goal is to direct limited resources to provide the greatest good for the greatest number, and not to focus on one patient's standard of care. Rationing of scarce resources is necessary in order to apply them to where there are the most needs, i.e. among those persons with the most salvageable injuries. Indeed, during MCIs hospitals will encounter multiple victims who are hopelessly injured and expected to die. During a disaster hospitals need to have the statutorily authorized flexibility to modify triage procedures and deliver a truncated standard of care.

In 2008 the Senate Committee on Health and Human Services reasoned that alternative standards of care and liability protections (except in cases of gross negligence) were necessary because, "in the event of a pandemic influenza, hospital employees who are not licensed to administer vaccines or distribute antivirals might have to perform these and other tasks. Additionally, due to over-crowding, medical personnel may have to administer care outside of traditional hospital settings."<sup>69</sup>

Assuring that hospitals have the liability protections to modify procedures during MCIs or disasters is problematic. Granting such flexibility *carte blanche* could lead to a *generally* diminished quality of care. However, granting such flexibility during disasters (for example, tying it into a governor disaster declaration) neglects the fact that hospitals may need to respond to an MCI more quickly than such a declaration can be made.

## **Progress**

In 2008 the House Committees on Defense and State-Federal Relations, and on Public Health were charged with examining the state of Texas's "preparedness level to handle a public health emergency." This committee also found the state to be taking a coordinated approach to the issue.<sup>70</sup> That approach continues to unfold subject to federal funding fluctuations.

H1N1 was a wakeup call for public health preparedness in the same way that Hurricane Katrina was for Hurricane Preparedness. As noted, capacities are being built in Texas that DSHS are trying to organize into a "Texas Disaster Medical System." However, public health preparedness is continuing to evolve in the minds of Texans and Americans as a vital function of government.

---

## Surge Capacity Planning

2009's HB 1831 directed regional planning agencies, under the direction of DSHS to develop plans for, "personnel surge capacity during disasters, including plans for providing lodging and meals for disaster relief workers and volunteers." Entities developing regional plans, "shall consult with representatives of emergency responders, infrastructure and utility repair personnel," and other stakeholders that TDEM regard as, "essential to the planning process."<sup>71</sup>

## Liability

During the 78th Legislature medical liability protections were codified in the Texas Civil Practice and Remedies Code as the result of HB 4. In 2008, DSHS and the Texas Medical Association reported that medical providers were still not convinced that there was satisfactory protection from liability."<sup>72</sup> In response, the House Committee on Defense Affairs & State-Federal Relations recommended that the 81st Legislature direct DSHS to, "initiate a professional awareness program to inform medical providers of the protections in place when providing pro bono medical services during a public health emergency." 2009's HB 1831 required TDEM to "establish a liability awareness program for volunteers, including medical professionals."<sup>73</sup>

## Operation Lone Star

Operation Lone Star (OLS) is an annual health care response training event along the border that also provides much needed medical care to the population. The response training allows relationship building between state and local health care responders and tests the Incident Command System (ICS) that would be used in the case of a medical emergency such as a pandemic. Texas Military Forces - coordinating with DSHS - provide approximately 400 Army, Air, and State Guard medical professionals, along with other state medical assets to support personnel for this two week event that covers sites from Brownsville to Laredo each summer. In 2010, services include health screenings and treatments, immunizations, physicals for students, hearing and vision exams, and limited dental care to more than 12,000 residents.

## TexMAT-1

The Texas Medical Assistance Team (TexMAT-1) is a State of Texas owned and operated mobile disaster medical asset designed to provide acute care and emergency stabilization to Texans affected by disasters. Based in College Station, it is capable of augmenting overwhelmed clinical facilities, assisting with the evacuation of victims, and providing temporary services when medical and public health infrastructure have been disrupted. As a state-owned resource, TexMAT-1 is designed to



North Carolina's State Medical Strike Team in action

---

facilitate integration and mutual aid with federal government resources (i.e. The National Disaster Medical System's Disaster Medical Assistance Teams).

TexMAT-1 is modular and can support smaller field units called "medical strike teams" that provide medical assistance over a larger geographic area. Medical and logistical personnel for TexMAT-1 are pooled from staff at Texas academic health centers, emergency departments and hospitals that deployed or redirected to disasters when they occur. TexMAT-1 thus redirects *state employees* to disaster areas (investing in training beforehand.)

The concept is similar to that governing the Public Works Response Team. (PWRT members are trained in disaster response and are then able to be utilized across the state during disasters.)<sup>74</sup>

Like Texas Task Force 1 or the PWRT, TexMAT-1 is essentially an "extension service" which uses existing state personnel and training resources - thus building state emergency health capacity and permitting Texas to respond long before the arrival of federal teams.

### **Pilot Projects in South Texas**

In 2009, HB 1831 was passed by the Texas Legislature and required DSHS to establish a program to educate Texas citizens on disaster and emergency preparedness, response, and recovery. It called for a regional pilot to foster community preparedness and an integrated medical and public health response. In the Lower Rio Grande Valley, community preparedness has been one of the most effective ways of mitigating public health emergencies.

HB 1831 also required DSHS to establish an Extension Service Pilot in Health Service Region 11 (LRGV) focused on public health and medical infrastructure. Texas A&M's National Center for Emergency Medical Preparedness and Response (NCEMPR) was designated by DSHS to manage this pilot project. The South Texas region was selected because the region has elevated vulnerability to natural disasters, epidemics, and other environmental threats. The program includes planning for medical special needs sheltering, medical cache management, the development of a Valley Medical Operations Center (VMOC), and basic and advanced disaster life support training to public health and medical providers. The committee heard from NCEMPR who believe that the pilot program fosters regional planning and capacities for Texas and can be a template for all regions in Texas to support the development of the Texas Disaster Medical System.<sup>75</sup>

NCEMPR believe that a "disaster medical" training and technical capacity now exists at Texas A&M as a result of the project, which can be used to train medical and public health provider from all parts of the state. Local capacities in Health Service Region 11 have been enhanced in the areas of planning, training, and regional coordination. As a result, Texans will be less dependent on federal resources to address the immediate emergency medical and public health needs of our citizens and move the state towards an integrated regional approach to public health and medical response to disasters.<sup>76</sup>

---

## **Medical Training**

In 2008 the Senate Committee on International Relations and Trade recommended that the Legislature, "Seriously consider the expansion of the Regional Academic Health Center into a four-year medical school to expand the medical infrastructure of the Lower Rio Grande Valley/Border region."

A four year medical school was created by legislation in 2009 however no money has been appropriated to it yet. This committee concurs with the Senate committee on International Relations and Trade's rationale that "having a medical school in the Lower Rio Grande Valley will allow students from local and surrounding communities greater opportunities to attend medical school and to remain in their home community to practice," which will aid surge capacity and community preparedness issues facing the LRGV.<sup>77</sup>

## **Recommendations**

The committee recommends that the Legislature direct the Sunset Advisory Commission to consider ways in which the public structures and authorities for public health could be centralized and standardized (in order to improve public health preparedness, response and coordination.)

The committee recommends that the Legislature adequately fund public health awareness to enhance community preparedness during a public health emergency.

The committee recommends that the Legislature consider dedicated funding streams or local revenue raising mechanisms for local health departments.

The committee recommends that the Legislature press the CDC to allow Texas to develop a home medical kit pilot program for bioterrorism preparedness.

The committee recommends that the Legislature consider ways to improve awareness among local officials regarding the role of Local Health Departments during an emergency.

The committee recommends that the Legislature consider rolling into the disaster declaration legal protections in the workplace for persons, or parents of persons, affected by an infectious disease.

The committee recommends that the Legislature investigate ways to encourage telecommuting by state employees in order to mitigate employee absences during flu season.

The committee recommends that the Legislature consider allowing the Governor, on the advice of the DSHS commissioner to exercise greater authority over local health authorities during a public health emergency.

The committee recommends that the Legislature investigate certain liability protections for hospitals during mass casualty incidents in order to facilitate effective surge capacity and



---

alternative care site plans.

The committee recommends that the Legislature consider a permanent Public Health and Medical Extension Service in order to provide ongoing technical assistance, training, and exercise throughout Texas. The initial focus should be in the most vulnerable areas of Texas such as the Lower Rio Grande Valley.

The committee recommends that the Legislature fund as soon as possible the Lower Rio Grande Valley's four-year medical school to expand the medical infrastructure of the border region.

---

# 4

## OTHER THREATS

In addition to "the big three" - Border Security, Hurricanes and Pandemics - Texas faces a number of other manmade and natural threats to public welfare. As will be discussed in Section 2, Texas employs sophisticated local and statewide organizational structures to deal with any and all hazards. Those structures are solidified in detailed plans and buttressed by extensive training programs. The following five threats have been outlined due to the existence of relevant committee findings.

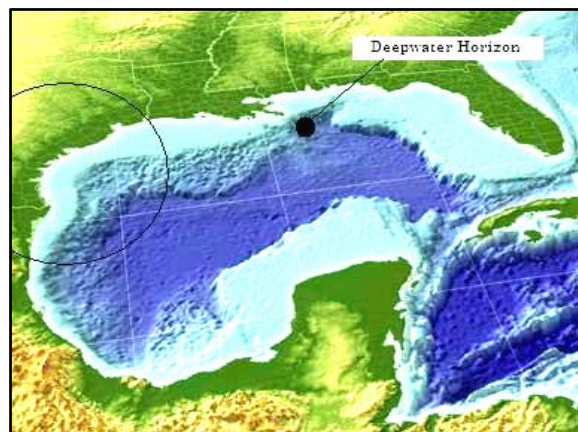
### Oil Spills

The Deepwater Horizon oil spill caught the attention of the committee as well as the nation. In order to assess potential impacts of the spill in Texas and the preparedness level of the state for a similar type of event, the committee heard testimony from the Railroad Commission (RRC) and the General Land Office (GLO).

The RRC has spill response authority for spills or discharges from all activities associated with the exploration, development, production, storage and transportation of oil, gas, and geothermal resources. The GLO serves as the lead agency for spills or discharges that enter or threaten to enter Texas coastal waters. In a typical year, the agency's Oil Spill Prevention and Response Program (OSPR) responds to approximately *nine hundred* reported spills. (A one and one-third cents-per-barrel fee on crude oil loaded or off-loaded in Texas ports funds the OSPR program, which deposits fee proceeds in the Coastal Protection Fund Account.)

The Committee heard from the GLO who explained how certain storm track scenarios could pan out and how mitigation and response infrastructure would be prepositioned along the coast in the event that oil from the Deepwater Horizon incident impacted Texas. As this report was being submitted, no major impact had been detected and the GLO's response was not enacted.

Texas has jurisdiction up to 10.3 miles off its shores while most other states only oversee 3.5 miles. The Texas Railroad Commission regulates offshore drilling by setting environmental and safety rules for rigs in state waters (the federal Minerals Management Service - which regulated Deepwater Horizon - handles such regulations for rigs further out). The Railroad Commission told the committee that there are 89 active operators with a total of 970 oil and gas wells. 678 of those wells are in a



Map showing relative depths of Gulf of Mexico and the Texas Coast (circled)

---

bay while 286 are offshore. The Railroad Commission has requirements for blowout preventers and other measures that control wells.

There are a number of factors in place that make a Deepwater Horizon type event unlikely in Texas waters. Deepwater Horizon was only around 50 miles from the Louisiana coast but set in a body of water 5,000 ft deep. Gulf waters off the Texas coast are much shallower, meaning such a well could not exist within 200 miles of the state's eastern seaboard (see map on page 49.) Most Texas rigs in state waters are set in depths no greater than 150 feet where conditions are significantly easier to operate in. Furthermore, there is nothing within Texas waters that approaches the magnitude- in terms of production - of the Deepwater Horizon rig.

The GLO has loaned Louisiana much equipment to help combat the effects of Deepwater Horizon including oil boom, fire boom (which both contains and burns spilled oil) and hi-tech wildlife rehabilitation trailers. While it is unlikely that two major oil spills would happen concurrently, if such a scenario was to arise, Texas would be put in a position where it would either 1) suffer shortages of equipment or 2) be working to have equipment returned from other states. (At one point 80% of the state's stockpile of oil boom was being used in the Gulf to help clean up Deepwater Horizon related spillage.)

Minor oil spills can still demand a significant commitment of personnel and resources. In January 2010, 462,000 gallons of oil were spilled in waters near Port Arthur - the biggest Texas oil spill in 15 years. At one point, the GLO, U.S. Coast Guard, and industry teams were deploying more than 100 vacuum trucks, 1,000 responders and 20 miles of boom.<sup>78</sup>

If such a spill - in this case caused by crashing sea vessels -had happened over the summer, Texas' response may have been strained due to generosity in responding to Deepwater Horizon. Such generosity is part of the Texas way, however adequate safeguards and procedures must be maintained in order to ensure Texas can both respond locally and be a good neighbor.

### **Localized Severe Flooding**

The committee heard from two Texas communities who have endured major flooding events and who have implemented technological and financial solutions to combat future incidents.

### **Houston**

Tropical Storm Allison hit Houston in June 2001. According to a report by the Senate Interim Committee on Natural Resources,

"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."<sup>79</sup>

The experience led to the creation of the Tropical Storm Allison Recovery Project. TSARP is a joint study effort by the Federal Emergency Management Agency (FEMA) and the Harris County Flood Control District commissioned to develop products that will 1) assist in flood recovery and 2) provide the community with a greater understanding of flood risks. TSARP also

---

led to new Flood Insurance Rate Maps, with new delineations of Special Flood Hazard Areas.<sup>80</sup>

Those maps were created using a technology called LIDAR - Light Detection and Ranging- that utilized the projection of millions of laser signals to the ground from a specially-equipped aircraft. In order to identify areas of higher flood risk, engineers needed a detailed and accurate representation of the shape of the ground. LIDAR resulted in highly-detailed ground elevation data for all of Harris County. This has led to more accurate flood insurance rate maps and a greater understanding of the floodplain.<sup>81</sup>

The Harris County Flood Control District has also bought and demolished 2,000 flood-prone homes, moving owners to higher ground as well as building dozens of huge underground spillover tanks.<sup>82</sup> (The District's income is derived primarily from a dedicated ad valorem property tax. The rate is variable, depending on funding needs, and is currently set at 3.3 cents per \$100 valuation. The statutory limit for the District's tax rate is 30 cents per \$100 valuation.)

## **El Paso**

In 2006, El Paso experienced more rain in two weeks than it usually experiences in a few years. Run off quickly overwhelmed the city's storm water system causing up to \$200 million in damages.

In July 2007, the El Paso City Council responded by creating a separate utility to manage storm water drainage. Legislation in the 2007 session enabled the city to exact storm water fees outside of its municipal jurisdiction (within El Paso County) in order to manage and control storm water drainage in those areas just beyond the city limits. The legislation was tidied up in 2009 to exempt county property (including school district property) from the fees.

The City of El Paso is now able to levee a "per month" fee for residential properties (depending on size) and another "per month" fee for non residential properties based on ground floor space. Reductions are given to properties that maintain their own storm water ponds (25%) and certain non-profit organizations (10%).<sup>83</sup>

Dedicated funding streams have allowed for long term planning. Nearly 100 capital projects all over the city have been identified at an estimated cost of \$570 million. Of those, the first 15 were slated to be completed within three years. Those projects cost \$68 million and are reported to reduce future flood risk by 50%.<sup>84</sup> Projects include additional storm drains and retention ponds - some of which double up as recreational parks.

## **Tornadoes**

Tornadoes pose a significant threat to both rural and urban communities and are discussed in Chapters 6 and 8.

## **Wildfires**

Texas is susceptible to many wildfires in any given year, the season usually beginning in June.

---

During drought conditions, wildfires are a much bigger threat to Texans - especially in light of population growth and the suburbanization of former farmland. (Between 2005-09 there were over 8000 fires, 81% of them being within two miles of a community.) Both 2006 and 2008 saw fire seasons that consumed in excess of a million acres. Due to drought, 2009's wildfire season began in February and stretched the Texas Forest Service (TFS) to its limits. On April 9, 2009 the state had to deal with 30 concurrent fires that overwhelmed local fire departments.<sup>85</sup>

Under the leadership of TFS, Texas has a tiered strategy for fire response to meet this risk. This involves local fire departments, Texas Forest Service and other state agencies, as well as firefighters and equipment from across the nation. Local fire departments are the first responders to wild land fires in Texas. However, if they determine that their capacity to control the fires is exceeded, assistance is requested from TFS. (The Texas Intrastate Fire Mutual Aid System is discussed more in Chapter 5.)

The TFS is the lead agency for Annex F- Firefighting. TFS and the Texas Engineering Extension Service (TEEX) conduct training classes in firefighting and related emergency response operations. Both agencies conduct structural firefighting training as it relates to Urban Wildland Interface fires.

Texas also has the ability to call upon out of state resources as a member of the South Central Interstate Forest Fire Protection Compact (through TFS) and the Emergency Management Assistance Compact (EMAC). Texas can call on compact member states for assistance when needed and is likewise obligated to provide assistance to others when possible.

TFS also has the ability to order resources through a cooperative agreement with the USDA Forest Service. Orders are placed through the national wildland fire dispatch system. Available resources include *National Wildfire Coordinating Group*-qualified personnel, aircraft, fire engines, bulldozers, handcrews, IMT's and supplies.

Radio interoperability continues to be an issue for wildfire responders and is discussed at length in Chapter 6.

## **Hazmat Incidents**

According to FEMA, hazardous materials are a part of everyday life - purifying drinking water, increasing crop production, and simplifying household chores - and are being shipped daily on the nation's highways, railroads, waterways, and pipelines. They only become hazardous when released improperly.

Varying quantities of hazardous materials are manufactured, used, or stored at an estimated 4.5 million facilities in the United States--from major industrial plants to local dry cleaning establishments or gardening supply stores. Hazmat (Hazardous Materials) emergencies could therefore arise during the production, storage, transportation, use, or disposal of such materials.

The federal Occupational Safety and Health Administration (OSHA) and the Texas Commission on Environmental Quality (TCEQ) both play a role in the day to day regulation of companies

---

that produce, store, utilize or dispose of hazardous materials. During a hazmat emergency, TCEQ is the primary agency (Annex Q of the State's Emergency Plan.)

Hazmat incidents can be minor. For example, in August 2010, a wreck occurred on I-10 near Hamshire that caused a tanker truck to spill a flammable and corrosive chemical. Some homes were evacuated as a precaution. The incident was largely dealt with by local emergency and law enforcement personnel, involving the evacuation of one subdivision and the setting up of one shelter.<sup>86</sup> Conversely, the 2005 fire and explosion at BP's Texas City refinery killed 15 workers and injured more than 170 others, requiring the deployment of regional and state resources.

Hazmat incidents can be gradual and ongoing, however, state law only requires companies to report the unauthorized release of a chemical when an incident begins and ends. That could possibly lead to public confusion and a retrospective response. For example, beginning in April 2010, toxic chemicals were burned without permission over BP's Texas City refinery for 40 days. "Yet," according to the Houston Chronicle, "residents didn't know until weeks later that the flare released 17,000 pounds of cancer-causing benzene," due to state reporting laws.<sup>87</sup> During the burn, BP gave TCEQ three verbal updates (not required by law) and continued to run operations (albeit at a decreased capacity) at the refinery.

## **Progress**

Passed in 2009, HB 1831 added extreme heat to the definition of "disaster" and requires TDEM to develop an annex to the state emergency management plan that addresses response to it.

In November 2010, Houstonians voted to tax themselves rather than simply wait for federal grant money. \$8 billion worth of projects could be completed over the next 20 years with funds being raised primarily through fees levied on properties and "impact fees" for new developments. Money would also be raised by paying for projects "as they go" meaning that property taxes - currently being used to pay interest on debt accrued financing previous drainage projects - will eventually be spent on future projects rather than debt repayment.

Communities in the lower Rio Grande Valley have made use of statutory provisions allowing Drainage Districts to be established. Districts can be funded by property taxes and be given bonding authority. Raised revenue can be used to draw down federal grant money. By using local funds and partnering with U.S. Homeland Security and International Boundary and Water Commission (IBWC), Hidalgo County has recently been able to improve around 35 miles of levees. Officials estimate that these improvements helped protect 58,000 homes, 2,800 businesses, and nearly \$1.76 billion in assets during flooding associated with Hurricane Alex.<sup>88</sup>

The Texas Intrastate Fire Mutual Aid System will prove to be a valuable state resource for combating wildfires and is discussed more in Chapter 5.

## **Recommendations**

The Committee recommends that the Legislature investigate further how local funding options in this home rule state can drive local solutions to local problems. If such funding options are found

---

to be fair and realistic, the committee would recommend local funding options be expanded by statute and encouraged through state financial incentives.

The Committee recommends that the Legislature explore ways that technologies like LIDAR can be used to enable Texas communities to understand the risk flooding poses to them.

The Committee recommends that the Legislature explore ways that Hazmat incidents lasting longer than several hours can be more closely reviewed and monitored by state regulatory agencies and the public.

The Committee recommends that the Legislature consider whether there is a need to require the Railroad Commission to conduct a thorough review of all blowout preventer blueprints for rigs in Texas waters.

The Committee recommends that the Legislature review the procedures in place for returning personnel and equipment lent to other states in the event of Texas finding itself under-resourced to meet an incident due to its compliance with mutual assistance compacts.

The Committee recommends that the Legislature consider the ability of active oil and gas operators in Texas to fund response efforts for a major incident.

---

# Section 2

*"The study should include an analysis of the level of preparedness among critical infrastructure entities, state and local emergency planning organizations, emergency warning systems, evacuation plans, first response efforts, and overall coordination of jurisdictions across the state".*

## Preparedness Infrastructure



---

# 5

## STATE AND LOCAL PLANNING ORGANIZATIONS

Planning is the unsung hero of emergency management. State and local governments have dedicated agencies to deal with planning, training and execution of emergency preparedness activities. However, those activities are not done in isolation, leading to a great deal of time, effort and energy being dedicated to enhancing coordination across jurisdictions.

### Where the Buck Stops

Ultimately, the Governor is responsible for dealing with dangers to the state presented by disasters and emergencies. At the local level, mayors and county judges have responsibility for emergency preparedness and response within their jurisdictions. Emergency management at the state level is delegated by the governor to the Texas Department of Emergency Management, which runs day to day emergency preparedness activities. Similarly, mayors and county judges usually appoint an Emergency Management Coordinator often within an Office of Emergency Management. Sometimes cities and counties (or multiple counties) run an emergency management program that crosses jurisdictions.

It is important to remember that cities and counties deal with emergencies all the time - such as car accidents and domestic fires. A disaster, or major emergency is when a jurisdiction's ability to respond is exceeded by the scope of the emergency. County judges and mayors then have the ability to declare disasters and assume emergency responsibilities and privileges such as issuing a mandatory evacuation. (It has been noted in previous reports that this is a power that the governor does not have.)<sup>89</sup>

There are numerous state and federal agencies that are critical to the state's emergency management capabilities. During a disaster, state assets are often requested (by localities) and deployed (by state agencies.) When emergencies are deemed to be beyond the (financial and/or technological) capabilities of the state, the governor may declare a disaster and request federal assistance. If and when the President declares a disaster (or pre disaster emergency,) a slew of federal assistance programs become available to residents and governments of affected areas.

### State Agencies

There are 172 state agencies in Texas.<sup>90</sup> Many have small roles in emergency preparedness. State agencies play a pivotal role in coordinating and collaborating with federal authorities on behalf of regions, counties, and localities as they generally have a direct federal counterpart, determined by functional similarity. State agencies also take lead roles in different types of emergencies and have designated support responsibilities in others. Those roles (Emergency Service Functions - see below) correspond to annexes of the State Emergency Plan. For example, TCEQ is the lead agency for "Hazmat and Oil spill Response" (Annex Q) and a support agency for a "Terrorist Incident Response" (Annex U.)

---

## The Texas Department of Emergency Management

The Texas Department of Public Safety (DPS) is the lead agency in Texas for disasters across the state. According to DPS:

"The strength of the state's disaster response efforts are at the local level, supported by the State of Texas through the Texas Division of Emergency Management (TDEM), a division of DPS, and the established unified command throughout the state."<sup>91</sup>

Committee members and staff had extensive contact with TDEM who:

- **Mitigate** disasters by maintaining the State Hazard Mitigation Plan, which reviews local mitigation plans, and provides hazard mitigation training for local officials. TDEM also administers post-disaster Hazard Mitigation Grant Program (HMGP) funds that are authorized for major disasters declared by the President. HMGP funds provide Federal grant funding for cities, counties, and other governmental entities to carry out mitigation projects to prevent future disasters where possible, or to reduce the impact of hazards that cannot be prevented.
- **Prepare** for disasters by developing and maintaining state-level emergency plans (such as the State Emergency Plan and its annexes.) TDEM promulgates state standards for local emergency management plans, assists cities and counties in developing local emergency plans, and reviews more than 1,500 local planning documents each year for compliance with state planning standards. More than 90,000 hours of training is provided each year by TDEM to localities.

State law requires each local emergency management program to have an emergency management plan. Plans are reviewed annually and updated regularly. The Texas Homeland Security Strategic Plan requires all jurisdictions to conduct at least one exercise per year that meets the requirements of the Homeland Security Exercise and Evaluation Program.

- **Respond** to disasters by managing the State Operations Center (SOC) located in Austin. The SOC serves as the state's situational awareness center and the principal command and control center for the state during a disaster. It operates around the clock to monitor threats, make notification of threats and provide information on emergencies to local, state, and federal officials. From the SOC, TDEM coordinates state emergency assistance to local governments when local response resources are inadequate. During major emergencies, state agencies, selected volunteer groups and federal liaison teams convene at the SOC to identify, mobilize, and deploy state and volunteer group resources to respond to the emergency.
- **Coordinate response** with regional operations through DPS Disaster District Committees (set up during emergencies.) Disaster District Committee emergency operations centers are staffed by personnel from DPS, other state agencies, and volunteer groups, with operations directed by a DPS captain or lieutenant. DPS commissioned officers from around the State are frequently deployed to disaster areas to provide traffic

---

control, convoy escort, and security for evacuated areas. DPS helicopters and fixed-wing aircraft frequently support response operations for major emergencies and disasters.

- **Supervise recovery** by coordinating damage surveys with local and federal agencies in the affected area to manage the overall recovery process. For major disasters, state and federal recovery staffs are co-located in a Joint Field Office set up to administer recovery programs. The TDEM Recovery staff includes specialists who aid local governments and public entities with programs to repair or reconstruct facilities that were damaged or destroyed under FEMA's Public Assistance Program.

TDEM Regional Liaison Officers (RLOs) are stationed throughout the State. These field response personnel are TDEM's direct link to local emergency management professionals. RLOs have a dual role: they carry out emergency preparedness activities and also coordinate emergency response operations. In their preparedness role, they assist local officials in carrying out emergency planning, training, and exercises, and developing emergency teams and facilities. They also teach a wide variety of emergency management training courses. In their response role, they deploy to incident sites to assess damage, identify urgent needs, advise local officials regarding state assistance, and coordinate deployment of state emergency resources to assist local emergency responders.

### **Department of State Health Services**

The Texas Department of State Health Services provides strategic leadership and direction to ensure public health preparedness for bioterrorism, natural epidemics, and other public health threats and emergencies in Texas. DSHS is the lead agency for the majority of public health related aspects for emergency preparedness and has a multi branch community preparedness section dedicated to these activities.

Committee staff enjoyed extensive correspondence with DSHS. Much of DSHS' public health preparedness role was discussed in Chapter 3 including the ability to deploy medical strike teams, provide public health guidance and manage the strategic national stockpile of vaccines.

In addition, because most emergencies have a public health aspect, DSHS provides a critical support role in any disaster. For example, during Hurricane Alex DSHS made pharmacy services available to support local shelters and has plans in place to coordinate with local health infrastructure.

In addition, DSHS provides the following:

- The Disaster Mental Health Services (DMHS) Team is charged with coordinating disaster behavioral health preparedness, response, and recovery efforts for Texas during and after a state or federally declared emergency. (This is a sub function (appendix) of Annex H - the Health and Medical Services ESF.) This includes guidance, technical assistance, and collaboration with decision makers at all levels of government and establishing FEMA Crisis Counseling teams to provide stress management and crisis counseling to any individual or group affected by the event. DSHS maintains a readiness

---

capability through a cadre of trained disaster mental health staff located at local community mental health and mental retardation centers (CMHMRC's).

Such services are vital both before and after a disaster. The committee heard from Galveston Mayor Jim Jawoski, who said that "PTSD (Post Traumatic Stress Disorder) is thriving on Galveston Island" since Hurricane Ike.

- The Texas Critical Incident Stress Management (CISM) Network assists emergency service personnel, including dispatchers, who have experienced a critical incident such as a line of duty death, the death of a child, and/or multiple casualty/fatality scenes. The network is made up of CISM teams from across the state. The education, services and intervention strategies provided by Network teams have been proven to return the emergency worker to duty faster and healthier. Comprised of peers and selected members of the clergy (chaplains) trained in these strategies and mental health professionals (MHP) cross trained to emergency service agencies, these teams are available within the state on a 24-hour basis.
- As noted in Chapter 3 DSHS has a number of deployable teams. A number of these teams are collectively referred to as RATs, CATs and DOGs.

A Rapid Assessment Team (RAT) is a DSHS rapid response team that provides an extensive but quick assessment of public health in a disaster area, provides available resources and reports to DSHS the status of the event and needs of the area.

A Command Assistance Team (CAT) is an 18 person deployable Incident Management Team (IMT) that will respond to a region to assist or supplement the regional or local response. Four CATs are pre-identified to respond to an event within 24 hours of notification.

Diversified Occupation Group (DOG) teams support regional and local jurisdictions. DOG teams are strike teams based on a specialty field, such as a team of epidemiologists, sanitarians, nurses, etc. These teams may also be a strike team organized for a specific purpose, such as a logistic team to support field operations or a MSN team to support a medical special needs shelter operation.

Numerous other deployable teams can be activated during a disaster as well. For example, during Hurricane Alex several teams including a MIST - Medical Incident Support Team - and an Ambulance Staging Manager Team were deployed to the San Antonio pre-staging area. An Ambulance Task force (25 ambulances) was on standby ready to deploy to San Antonio and a number of Medical Special Needs "push packs" (containing essential medical supplies) were made available.

### **Texas Forest Service**

The Texas Forest Service (TFS) is the lead agency for firefighting, as detailed in Chapter 4. In addition, TFS deploys Regional Type III Incident Management Teams (RIMT's) to support the

---

state response during a disaster.

These teams are formed by personnel from local and municipal entities that are trained and mobilized by TFS to provide support as needed. The RIMT program was initiated in 2006 by Governor Rick Perry's Executive Order RP57 and is delivered by the TFS with program funding by TDEM. There are 410 RIMT members statewide, representing all first responder disciplines.

Most members of these teams are not employed by a State agency and are not covered under the State's Workers' Compensation Insurance Program. The committee heard from TFS who believe that given the risk involved with emergency response and given the fact that the citizens willing to serve on regional incident management teams are providing a valuable service to the State of Texas, it is critical that the Legislature consider covering them under the State's Worker's Compensation Insurance Program.

A legislative change to allow RIMT personnel similar coverage to that provided to Texas Task Force 1 members (who like RIMT members are usually not state agency employees ) would resolve this issue.

### **Texas Military Forces**

Texas Military Forces (TxMF) personnel serve in a supporting capacity to enhance response activities during a disaster. The TxMF consists of the Texas Air and Army National Guard, and the Texas State Guard, which also contains Air, Army, Maritime and Medical components. TxMF also provides training and participates in exercises to enhance rapid and long-term response capabilities, including the ability to integrate with law enforcement, emergency management, and other public safety organizations.

During Hurricane Alex, Governor Perry activated TxMF personnel meaning that up to 2,500 guardsmen, eight UH-60 helicopters and three C-130 aircraft were prepared for deployment as needed. TxMF also supported TPWD and TxTF1 in search and rescue operations, provided shelter support teams and supported reentry operations by taking aerial photographs used to determine road conditions, the extent of local flooding and evidence of citizens stranded in distress at remote places.

### **Coordination of Jurisdiction**

Coordination across and between jurisdictions and agencies is essential for a unified statewide response to a disaster. Coordination maximizes the efficient use of resources and personnel - but is usually complex. For example, consider an evacuation of Harris County - the state hurricane evacuation matrix consists of over 1000 activities necessary to conduct an evacuation along the coast. Though dominated by Houston, Harris County has 33 other municipalities and 1.3 million residents in unincorporated areas. Harris is one of 254 counties in Texas (which has more counties than any other state in the Union.)<sup>92</sup> During disasters, emergency management is a team game with many local, state and federal agencies in play.

---

## **Emergency Service Functions**

State response is organized around Emergency Service Functions - ESFs. For example, obtaining supplemental food, water and ice resources during an emergency is Annex "V" of the state emergency plan. Coordination for the ESF is directed by the Health and Human Services Commission as the primary agency, selected on the basis of its authority or capability in that particular functional area. The other agencies and organizations within the group are designated as "support agencies" and organizations based on their ability to provide equipment, personnel, and expertise in support of specific functional requirements.

ESF lead agencies also maintain the corresponding annexes (sub-plans) of the state emergency plan. For example, TxDOT is the primary agency for the Public Works and Engineering ESF therefore maintaining Annex K (Public Works and Engineering.) In some instances, state emergency plan annexes (and therefore ESFs) are subdivided into appendices. For example, "Disaster Mental Health" is Appendix 5 of Annex H (Health and Medical Services.)

## **The Chain of Assistance**

Texas has a bottom up approach to disasters in which inter-jurisdictional structures represent not so much a chain of command but a chain of assistance. State assistance (organized through ESFs) is requested by counties and cities (usually via their respective emergency management offices) through the local Disaster District Committee.

Disaster Districts are the State's regional emergency management organizations that serve as the initial source of state emergency assistance for local governments. Disaster District Committees, consisting of state agencies and volunteer groups identify, mobilize, and deploy personnel, equipment, supplies, and technical support to respond to requests for emergency assistance from local governments and state agency field operations.

If the resources of a Disaster District are inadequate to provide the type or quantity of assistance that has been requested, the request for assistance is forwarded to the SOC for state-level action. TDEM employs conference calling and numerous web based tools to streamline and expedite communication. Federal partners like FEMA, the CDC, DHS, OSHA and the U.S. Coast Guard are usually involved before federally declared disasters. Federal agencies maintain a presence at the Disaster District Committee and SOC. During major emergencies it is the logistical hub of the state of Texas' response.

According to the State Emergency Plan, "federal level response and recovery assistance will be necessary to provide for the public safety before, during, and after a catastrophic event in Texas. It is expected that federal assistance provided to Texas will be based upon specific requests and priorities provided by the State."

From the SOC, TDEM manages around 3,000 to 4,000 incidents per year - most of which do not require full emergency management council activation. TDEM coordinates with localities through Regional Liaison Officers (RLOs) stationed throughout the State. RLOs carry out emergency preparedness activities and also coordinate emergency response operations. One local

---

official told the committee he believed the high turnover of RLOs in his area suggested that RLOs were not adequately compensated or supported.<sup>93</sup>

### **The National Incident Management System (NIMS)**

The National Incident Management System (NIMS) unifies and institutionalizes a system of preparedness and response across the nation. NIMS allows officials in jurisdictions across the nation to use common terminology and command structures, and share resources when responding to a hazard. NIMS incorporates common systems for incident command, multi-agency coordination, and public information. Governor Perry adopted NIMS as Texas' statewide standard for incident management in Executive Order RP40, facilitating an effective, efficient, interlocking regional response system. A program is in place to track the progress of NIMS implementation in all jurisdictions in Texas. The state continues to refine its incident management system, standardizing software applications and establishing common operating procedures.<sup>94</sup>

### **The Texas Statewide Mutual Aid System and TIFMAS**

Mutual aid allows the whole state to benefit from locally owned and maintained resources. The SHSSP 2010-15 gives the following example:

"An excellent example of a community acquiring resources that have region wide impact is the Corpus Christi Bomb Squad... This capability supports not only Corpus Christi, but 25 surrounding counties – the next nearest bomb squad is over 150 miles away. Using this capability, the Corpus Christi Bomb Squad supports federal agencies, neighboring counties and cities, and local military operations."<sup>95</sup>

SB 11 (2007) created a statewide mutual aid system. (Such a system had been a recommendation of numerous reports including the House Committee on Public Safety Report 78th Legislature.) SB 11 allowed all cities and counties in the State to assist each other more effectively by eliminating the old requirement of having individual mutual aid agreements between cities and counties. However, the committee heard from one emergency manager that said during Hurricane Ike recovery, FEMA required any cities receiving mutual aid to draw up stand-alone mutual aid agreements with neighbors, which made reimbursement problematic.

Also, created by SB 11, is the Texas Intrastate Fire Mutual Aid System (TIFMAS) which is organized by the Texas Forest Service. First used during Hurricane Ike, it has since been used in response to flooding in Presidio, wildfire outbreaks in North Texas and first response efforts after Hurricane Alex. The system has so far mobilized firefighters, strike teams, paramedics and firefighting equipment from all across the state to disaster areas, where local resources were in danger of being overwhelmed.

The Texas Regional Response Network (TRRN), a web-based data tool developed by the state, enhances mutual aid by displaying information on resources (both equipment and personnel) available throughout Texas. The TRRN assists jurisdictions in identifying and requesting resources and equipment for use in a large-scale incident.

These examples of mutual aid coordination have different applications in the field of public

---

health response. A fire engine is obviously more transportable than a hospital. There is also a perception problem with public health preparedness - local health departments are not considered to be as integral to local government structures as a fire department . Much public health infrastructure is privately owned and operated due to the nature of our healthcare system. However, Texas should continue to look at ways to rapidly deploy its vast medical assets - especially state employed medical personnel - during emergencies. As discussed in Chapter 3, H1N1 may well be a watershed in perceptions Texans have of public health preparedness.

## Progress

Committee staff were able to see the mutual aid and Disaster District systems work in practice during Hurricane Alex. Staff members were silent observers at the McAllen Disaster District Committee, the SOC, local EOCs and party to statewide conference calls. Staff found the system to work very well with no obvious flaws.

Committee staff also expressed faith in the "Post-Disaster Evaluation" process, whereby state agencies compile reports regarding the success of their operations in a disaster. The process allows for lessons to be learned, weaknesses to be outlined and problems to be solved. Post-disaster evaluations were the recommendation of the Senate Committee on Transportation and Homeland Security interim report to the 81st Legislature, "order to perform timely self-assessment and identify areas for improvement."<sup>96</sup> HB 1831 gave TDEM the authority to request that government agencies and political subdivisions, "conduct an evaluation of the entity's response to a disaster, identify areas for improvement, and issue a report (within 90 days of a request) of the evaluation to the division."<sup>97</sup>

The statewide mutual aid compact was a recommendation of both the Senate Interim Committee on Natural Resources report to the 78th Legislature and the Senate Committee on Transportation and Homeland Security interim report to the 80th Legislature. The Transportation and Homeland Security Committee Chair, Senator John Carona, carried SB 11. It is an example of how the Texas Senate has managed to take the lead on emergency preparedness and homeland security issues - through having a permanent committee that deals with those issues and that maintains relationships with stakeholders during the interim.

To quote the State Homeland Security Plan, "Senate Bill 11 expanded the number of emergency vehicles and other resources available for use during a disaster. It also took steps to enhance the ability to conduct interagency, multi-jurisdictional law enforcement operations along the Texas-Mexico border."<sup>98</sup>

The committee also found it worthy to note that "congruence" is a key factor in the success of coordination. Disaster Districts, another product of 2007's SB 11, share boundaries with regional councils -thus utilizing the established cooperative channels established across jurisdictions during a disaster. The same is true for Health and Human Service regions which usually cover 1-3 contiguous regional council areas. The standardization of cooperative relationships between government entities help emergency management functions run more smoothly. The Legislature should explore ways in which congruence could be expanded.



---

## Recommendations

The committee recommends the Legislature consider exempting budgetary items relevant to emergency preparedness activities from further cuts, due to the fact that the safety of citizens is a primary function of government.

The committee recommends that the Legislature investigate the usefulness of funding the emergency preparedness activities of state agencies through consolidated and steady sources of revenue rather than from general revenue and federal grants.

The committee recommends that the Legislature invest more in the preparedness activities of DSHS, so the agency is not overly reliant on increasingly fickle federal funds.

The committee recommends the Legislature consider creating an additional state staging location for emergency resources in the Lower Rio Grande Valley, due to the large amount of weather related emergencies in that part of the state.

The committee recommends the Legislature invest further in web based tools that streamline communication between jurisdictions during an emergency in such a way as to make them more readily available.

The committee recommends the Legislature lay a greater emphasis on local familiarity with state emergency structures, perhaps by making state funds more contingent on the completion of training by local elected officials.

The committee recommends the Legislature explore ways in which the State's Workers' Compensation Insurance Program can be expanded to emergency responders such as TFS' RIMT members.

The committee recommends the state seek clarification with FEMA regarding the Texas mutual aid system.

The committee recommends the Legislature explore boosting funding for local health departments and community health centers in order to undergird them financially as key functions of local government.

---

# 6

## EMERGENCY WARNING SYSTEMS AND COMMUNICATIONS

Communication before an impending disaster is essential in order for responding government entities to coordinate with Texas residents. Traditional communications mediums still dominate this interaction. For example, during Hurricane Alex, local governments disseminated information to television stations who broadcast sandbag and shelter locations as well as weather information.

Nevertheless, communications technologies have undergone a revolution over the past 20 years, creating new opportunities for government to reach residents - such as through social media and cell phones. This revolution has also diversified the ways in which Texans communicate - demanding that emergency warning systems be more complex and multifaceted.

The state's response to these developments has been covered by two recent reports: 1) The Commission on State Emergency Communications' 2009 Next Generation 9-1-1 Master Plan and 2) the Sunset Commission's 2010 staff report of the Commission on State Emergency Communications. In addition, the committee found the following findings to be worthy of note to lawmakers.

### **The Emergency Alert System**

The Emergency Alert System (EAS) is a national public warning system that requires TV and radio broadcasters to offer to the President the capability to address the American public during a national emergency. The system also may be used by state and local authorities to deliver important emergency information such as missing children alerts and emergency weather information targeted to a specific area.

For example, storm alerts from the National Weather Service are relayed to the public via EAS. The committee heard from the Texas Association of Broadcasters who believe that there has been minimal effort made to encourage state and local officials to utilize the Emergency Alert System. The TAB provided the following anecdote:

"Two elderly women burned to death in their homes Dec. 27, 2005 when wild fires struck the small town of Cross Plains, between Abilene and Brownwood. Authorities knew the fire was coming but could not think of any way to alert residents other than having officers with bullhorns drive up and down the highway urging citizens to evacuate. TAB checked with the local fire marshal who had never heard of EAS and had no idea he could have called any radio or TV station to put out almost instantaneous warnings to the public using the system. Both the women killed were soap opera fans and would have seen a warning crawl across their TV sets, he said."<sup>99</sup>

It was also brought to the committee's attention that EAS could make significant strides in its utility to non English speaking residents. The TAB told the committee that they are exploring opportunities to use software developed by an engineer at the National Weather Service to automatically translate English into Spanish.

---

## Siren Systems

Some municipalities employ outdoor siren systems. The Fort Worth Outdoor Warning System consists of 137 strategically placed sirens that are activated for emergencies such as tornadoes or hazmat incidents. On the Coast, The City of Texas City has a system with 16 sirens which alerts residents to possible dangers. The system is used in tandem with television and radio alerts.

The committee heard from the City of Dallas, whose outdoor weather warning system has 151 new sirens, the main purpose of which is to warn individuals who are outdoors to seek immediate shelter. The sirens were used on September 8, 2010 when an EF-2 tornado briefly touched town in West Dallas. Through a 2006 Bond Initiative, the City's Office of Emergency Management was granted \$3.3m to overhaul its old siren system. The new sirens are capable of two-way communications that allow City staff to monitor the status of each siren in the field, something that was not available on the older system.

Siren systems are designed to work outside and cannot be effectively utilized to warn people indoors. Unlike telephonic emergency notification systems they do not utilize an existing infrastructure with a separate day to day utility (like a landline network.)

## Reverse Notification Systems

Reverse Notification Systems (RNS) work by municipalities, counties or regional councils having a system which sends prerecorded telephone messages to residences and businesses within a certain area. Landline telephones can be contacted *en mass* by authorized public safety personnel within a region to notify residents in an emergency situation - such as severe winter weather.

The City of Dallas' RNS was purchased with State Homeland Security Grants from the Department of Homeland Security. The system is capable of calling thousands of residents per hour to warn them of impending danger. The system has been used to issue voluntary evacuation notices to residents after heavy rain events that threatened the flood protection system in West Dallas. The System consists of 144 phone lists that the City maintains. The system is also used to mobilize special teams from the City Fire and Police Special Operations Divisions.<sup>100</sup>

Other examples of RNS being utilized include:

- City of Laredo - used in July 2010 to warn of Hurricane Alex-related flooding.
- City of San Antonio - used in February 2010 to notify 286 nearby residents regarding evacuation due to a Hazmat incident.
- Cameron County - purchased an RNS funded by 911 service fees in May 2010.

RNS is by no means a problem free technology. First, it is not a universally offered service in Texas. Instead RNS are purchased and maintained by various cities and regional councils. Second, systems do not automatically include cell phones or VoIP (*Voice Over Internet Protocol*) phones. In order for a system to reach these kinds of phones, the subscriber must register with the system. Third, maintaining a database of relevant numbers used in an RNS is problematic. The City of San Antonio's RNS uses the 911 database which has at least 20,000

---

changes per month. In over a dozen uses in areas larger than a half mile radius, the city's RNS has never had higher than a 17% success rate.<sup>101</sup>

An "EAS" style approach to reverse notification - whereby all cell, landline and VoIP phones would receive an automatic emergency notification - has been developing at the federal level since 2006, however comprehensive implementation remains a work in progress.<sup>102</sup>

### **The 211 Texas Information and Referral Network**

The 211 Texas Information and Referral Network (TIRN) is housed within the Health and Human Services Commission. Handling more than 200,000 calls a year, the program is responsible for the development, coordination, and implementation of a statewide information and referral network that connects local residents with community resources and state and local services.<sup>103</sup>

211 is comprised of 25 regional Area Information Centers (AIC) that are designated to provide 211 services for their respective regions. 211 is part of the Texas Homeland Security Strategic Plan and works closely with TDEM to ensure that all aspects of emergency preparedness and public information are accurate and timely. 211 has the capability to stand up 32 additional phones during an emergency by activating a portable call center.<sup>104</sup>

During Hurricane Ike - as a large Disaster Response queue formed - 211 directed AICs to concentrate staff on disaster queries and extended business hours. The scope of Hurricane Ike caused technology outages which temporarily impeded 211 service delivery. During 2010's Hurricane Alex, local 211 centers experienced increased call volume, mostly regarding transportation assistance, sandbag locations and shelter information. 211 call volume during tropical storm Hermine was nominal.<sup>105</sup>

### **Poison Control Network**

The Texas Poison Control Network (TPCN) consists of six regional interconnected call centers that provide poison information to the public and healthcare professionals through a toll-free number, as well as educational programs and poison related research. Each regional poison control center is required to provide DSHS with access to all data and information for public health activities and epidemiological and toxicological investigations.

TCPN is (as of May 2010) no longer under the authority of DSHS. Instead it is under the authority of the Commission for State Emergency Communications (CSEC.) The six call center structure is mandated by state law. The Sunset Commission found that, "designating the six call centers in statute limits the (CSEC's) ability to determine the most effective structure for the network once it transfers."<sup>106</sup>

In FY2009, Texas' six poison control centers received over \$6.5 million in state funding, over \$2.5 million in federal funding and received approximately 365,723 calls.<sup>107</sup> However, in addition to receiving calls, the TPCN has the responsibility for providing education activities for teachers, students, and citizens as well as professional opportunities for health care providers.

---

## Progress

Texas residents have traditionally relied upon being able to call 911 in order to reach law enforcement authorities. The rise of cell phones, internet phone services (VoIP) and 3G (mobile internet) networks has occurred at the same time that landline and public telephones have declined in use. According to CSEC's master plan, 911 "is approaching the end of its useful life."<sup>108</sup>

### 911 and "Next Generation 911"

A major problem with current 911 services is the discrepancy in calling from a cell or internet phone as opposed to a landline. Cell phones may be routed to the wrong dispatcher and do not provide dispatchers with the geographical information of the caller. Because people use cell phones as a primary emergency source, the FCC has ruled that wireless telephones must begin providing 911 services similar to wired phones. These provisions will evolve in two phases. Phase 1 will require phone services to provide the tower address that is receiving their signal and the phone number to the 911 center. Phase two will require phone services to provide a location within 125 meters 67% of the time.

Regional Councils develop plans designed to provide for the operation of 911 services within the area they serve. CSEC has the responsibility of developing minimum performance standards for equipment and operation of 911. 27 Texas cities do not participate in the state 911 program and provide their own service without direct assistance from the CSEC.

According to the Sunset Commission's staff report of CSEC, "While this mix of state and local 911 service provision works well for the state, evolving digital technology necessitates the creation of a statewide, interconnected 911 system, called Next Generation 911."<sup>109</sup>

According to CSEC's master plan:

"A technological transition to NG9-1-1, is essential to meet the public's expectation of accessing 9-1-1 using a choice of communication technology...The Texas NG9-1-1 environment will differ considerably from the current 9-1-1 environment. NG9-1-1 will require an overhaul of all aspects of 9-1-1 from governance to the delivery of services. CSEC will be the planning and implementation coordinating body for the deployment and operation of the Texas NG9-1-1 backbone system."<sup>110</sup>

Implementation of NG9-1-1 will entail significant investment, detailed planning, and close cooperation among the public and private sector entities. In 2009, CSEC received a \$5.4 million federal grant to begin development of the state-level NG9-1-1 network.

### Internet, Social Media and Cell Phone Messaging

Internet and social media provide new opportunities for emergency management personnel as well as creating new headaches. Agency websites can be used as great sources of information for the public during an emergency, easing pressure on agency phone lines. For example, during the 2008 and 2009 hurricane season, TxDOT's Road Conditions Web site received more than 330,000 visits. Though not strictly a fair comparison, that saves both time and money compared

---

to 330,000 answered phone calls.

Municipalities, counties and state agencies are increasingly using social media resources such as Facebook and Twitter in order to communicate with the public. These resources can be commandeered during emergencies to disseminate important information.

For example, during Hurricane Alex, Rio Grande Valley public information officers collaborated to create the Facebook page "/RGVAlex" in order to keep residents updated on storm updates, preparations, response and recovery. Within a day they were able to gather 500 followers and it was being used as a clearing house for emergency information. (A similar initiative, "/RGVDisasterCenter" has almost 800 followers.) While the amount of people using these services is still small, it is a growing arena for emergency information and relatively cost free (with no setup or maintenance fees.)

Twitter is also being used by government entities. For example, TxDOT uses it to deliver road conditions and evacuation information. The City of McAllen used its Twitter feed to divulge emergency information during tropical storm Hermine. "Tweets" can be "retweeted" allowing information to be spread organically from person to person, and network to network.

The Gulf States Regional Center for Public Safety Innovations (a federal agency) conducted a survey in 2010 of 500 agency departments regarding the use of social media. The survey found patchy implementation of social media applications among gulf states.<sup>111</sup> Furthermore, Texas does not currently have a plan to define principles, set standards and delineate good practices regarding the use of social media resources for emergency notification.

Finally, SMS messages provide new opportunities with over 4 billion sent per day in America. The University of Texas at Tyler has developed a system called "PatriotALERT" which sends out emergency notifications via e-mail, voice and text messaging to staff, faculty and students. People with "smartphones" can receive both email and SMS with their devices.

The City of Alvin, uses a notification system that allows them to send up to 30,000 messages to 7,000 households via email and text message. It was used during H1N1 - a telling reminder that an online social media presence represents for government entities a resource for rumor management as well as information dissemination.

The value of such systems was seen clearly in September 2010 when a rogue gunman briefly terrorized the University of Texas at Austin campus. Campus officials employed e-mail, updates to the school's website, Twitter, Facebook, a siren system and text messaging to alert students. (53,000 students and staff were reached by text message, alone.)<sup>112</sup>

### **What Others States are Doing**

- In North Carolina during Hurricane Earl, Twitter was used to collate information that different agencies and organizations were putting out. By using the hash tag '#Earl' users made it easier for information to be gathered and to follow what other people were

---

saying.<sup>113</sup> In one sense, Twitter was being used in a way reminiscent of a conference call or a TDEM situation report.

- FEMA have recently developed a website designed to work with smartphones called [m.FEMA.gov](http://m.FEMA.gov). The website is a slimmed down version of the main FEMA site, providing disaster information and allowing people to apply for FEMA help on their phones.
- The state of California is developing the Commercial Mobile Alert System (CMAS) to contact cell phones *en mass* during an emergency. CMAS technology works much like the emergency alerts broadcast on television or through land line phones. The main difference is that emergency text messages will be sent to mobile phones in a defined geographic area, which could be as large as a county or city or as small as a few blocks.<sup>114</sup>
- Finally, social media utility does not have to be about government entities contacting residents. It can work both ways. Two Los Angeles, Ca. City Council members are using smartphone apps to allow residents to inform them about local problems like a pothole or an overgrown tree. Residents can use this "city official in your pocket" to send pictures of trouble spots and the location's GPS coordinates are transmitted instantly to the city.<sup>115</sup> Such an app could be used to help emergency management personnel after a disaster locate debris and downed power lines.

## Unresolved Issues

While new technologies offer exciting possibilities, problems remain. Most emergency preparedness applications are "opt in" - meaning that residents have to be proactive in order to participate. This is unlike the EAS or Reverse notification systems which alert people regardless of their interest in or knowledge of citizen preparedness (albeit with middling success.)

Social media, SMS messaging and smart phone apps continue to grow in importance for Texas' emergency management personnel. The state should look to develop standards, guidelines and best practices to ensure these new systems enjoy the success that 911 has had since the second world war.

Lawmakers should also remember that Texans still use landlines and televisions in large numbers (especially in rural areas.) These older technologies will continue to play a significant role as Texas develops a suite of multimodal notification options.

Finally, all communication technologies - from radios to smartphones - rely on transmission infrastructure - towers, electricity availability and so on. The committee heard from rural Brazoria County who informed that they expect their telephone and internet infrastructure to fail during an emergency.<sup>116</sup> Smart applications of new technologies need to be undergirded by hardening the infrastructure that enables them.

---

## **Recommendations**

The committee recommends that the Legislature explore giving counties greater latitude in levying 911 service fees in order to implement Next Generation 911 capabilities.

The committee recommends that the Legislature require the Commission on State Emergency Communications to promulgate guidelines and minimum standards for online based notification systems, as it does for current 911 services. (This should be done in such a way as to not impede improvisation or innovation.)

The committee recommends that the Legislature consider funding a full time employee at either the Texas Department of Emergency Management or the Commission on State Emergency Communications dedicated to social media emergency applications.

The committee recommends that the Legislature provide funding and explore ways in which communication technology infrastructure can be hardened to withstand disasters.

The committee recommends that the Legislature consider creating broader powers to enforce early warning messages on media carriers, including cell phones and internet service providers.

The committee recommends that the Legislature fund a study to look into how useful smartphone apps could be regarding the improvement of both day to day governance and disaster recovery.



---

# 7

## EVACUATION AND SHELTER PLANS

According to Mark Penn, emergency management coordinator for Alexandria, Va., cities "fail at evacuation twice a day: morning rush hour and afternoon rush hour."<sup>17</sup> Nationally, evacuations remain one of the biggest headaches for emergency managers. Texas, with its growing population and already overcrowded roads, is no different.

The committee found that the state of Texas has made significant strides since the infamous evacuation of the Houston-Galveston area for Hurricane Rita in 2005, where 2.8 million Texans ended up stranded on highways for as long as 18 hours.

As detailed in Chapter 2, a large scale evacuation of the Lower Rio Grande Valley remains one of Texas' biggest challenges. However, because urban landscapes are constantly growing and changing (as are road networks) officials must continually adapt the methods by which they expect to move the people in their communities to safety in response to disasters. For example, the Houston-Galveston area is projected to have 500,000 new residents by 2035 -effectively moving the goal posts when it comes to planning evacuations.

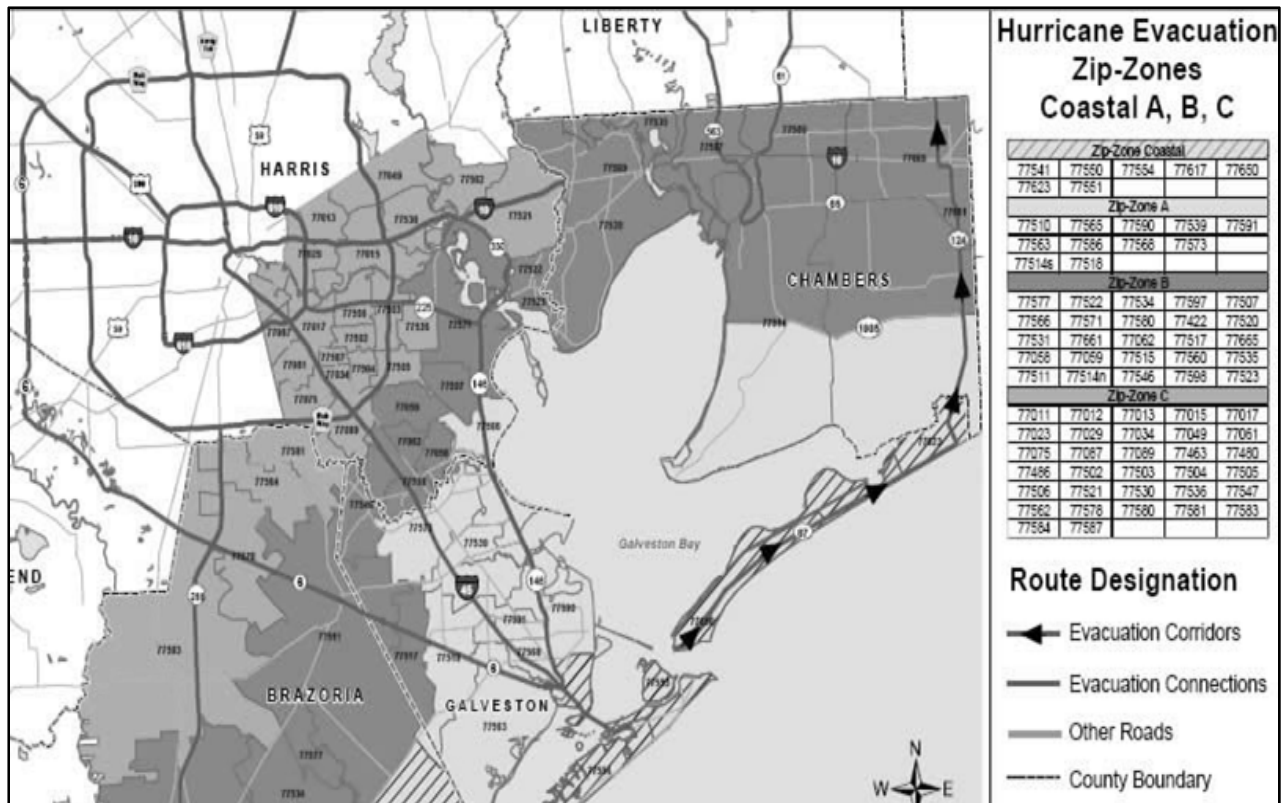
There is no silver bullet to the problem of large scale evacuations. Continued investment in roads is necessary to simply maintain the status quo. Mass public transportation options are therefore worth exploration. Other initiatives - such as community preparedness, building codes that result in hardened homes and shelters, discouraging development in areas prone to evacuation and prioritizing the evacuation of special needs groups within the general population – could all play a role too.

### **Authority**

The county judge or the mayor of a municipality may order the mandatory evacuation of all or part of a population from a stricken or threatened area. In the case of a conflict between the decisions of a county judge and a mayor, the county judge's decision prevails. Evacuations can take place on a small scale for local emergencies such as minor hazmat spills or flash flooding (see Chapter 4.)

Large scale evacuations are most frequently utilized in response to hurricane conditions. Evacuation orders can be voluntary or mandatory targeting specific regions or groups. During Hurricane Alex in June/August 2010, Cameron County issued a mandatory evacuation of all high profile vehicles at county parks on South Padre Island.

However, evacuations remain dependent upon voluntary actions of a population in response to a perceived threat. Many people did not evacuate for Hurricane Ike because it was "only" a Category 2 storm.



Source: Harris County

Gridlock was avoided during Hurricane Ike, partly because only parts of Houston (found in Zone B) were under a mandatory evacuation - allowing those in the most vulnerable areas (Zones A and "Coastal") easier passage.<sup>118</sup> The committee heard from the Harris County Office of Homeland Security & Emergency Management (HCOHSEM), who said they have a regional commitment to staggered evacuations that enjoys a good level of civic cooperation.

### Evacuation Preparation

Large scale evacuations - led by DPS in accordance with Annex E of the state emergency plan - are complex, involving multiple state agencies and inter local cooperation. In anticipation of a hurricane or other emergency, the Texas Department of Transportation minimizes road closures and suspends road maintenance and construction in projected impact areas.

Before an evacuation, TxDOT contacts railroad companies to request they minimize blockage of highway rail crossings along evacuation routes. TxDOT pre-contracts with tow truck companies for the quick removal of stranded vehicles on evacuation routes and sets up comfort stations along those routes.

During this period, the department also stops issuing non-essential truck trip permits for evacuation routes and impacted travel areas to maintain traffic flow and to mitigate any potential hazardous material risks.

---

## **Contraflow and “Evaculanes”**

TxDOT has the authority to open select highway shoulders located along evacuation routes that are wide and smooth enough to be used as travel lanes to serve as “evaculanes”.

Evaculanes are located on the following evacuation routes leaving coastal districts: IH-10, IH-37, U.S. 69, U.S. 290, S.H. 87, S.H. 285, and S.H. 321. Notable absentees from the aforementioned list are U.S. 77, 83 and U.S. 281 (main arteries in an evacuation of the LRGV) and IH-45 (connecting Houston and Dallas.)

Where evacuations are not present, contraflow orders can be signed by the governor allowing traffic to travel in one direction on all highway lanes. Use of contraflow lane reversal is considered an emergency measure, as the contraflow lanes (and any associated ramps at interchanges) lack proper signage, signals, and other traffic control devices needed to orderly conduct traffic in the opposite direction.

Generally, a significant number of police officers or other officials are needed to manually direct traffic during a lane reversal (especially at interchanges, where ramp traffic in the wrong direction must intersect with other roadways operating normally). Before a road is closed for contraflow, TxDOT and law enforcement must “flush” the contraflow lanes of all oncoming vehicles and block entrance and exit ramps. This often is a time-consuming and resource intensive process.<sup>119</sup>

## **Special Needs Evacuations**

For the purpose of evacuation, “Special Needs” is defined as any citizen who cannot self-evacuate. Persons with disabilities, the elderly, and those without motor vehicles are included within this group. (Hospitals and nursing homes have their own emergency evacuation plans, coordinating directly with local jurisdictions and the State Operations Center to schedule appropriate transportation for patients and accompanying family members.)

In 2009 the National Council on Disability submitted a report stating that:

"Many emergency managers and people with disabilities remain unprepared for a disaster, in part because of the extra burden placed on minimal staff or the already difficult circumstances of many people with disabilities."<sup>120</sup>

The report's findings and recommendations are in sync with the recent recommendations of the Governor's Committee on People with Disabilities which recommends that Texas create a full time Texas Emergency Management Disability Coordinator position at TDEM and designate contacts for disability issues in each of the 24 disaster districts statewide.

## **211 Registry**

After the 2005 hurricane season, Texas officials established a special-assistance registry for people who are likely to need help in a general evacuation. Individuals needing transportation during an evacuation can call 211 to register with the State of Texas Special Needs Registry. The

---

state invests significant funds in pre-deploying chartered buses for special needs evacuations. (See Chapter 2.)

The 211 helpline answered a record 732,500 calls for help in 2009, a 27% increase over the previous year's call volume. According to HCOHSEM, the 211 system worked very well and was supported by assets like buses, drivers, and health care professionals.

However 211 remains an “opt in” service that people have to proactively and preemptively engage with in order to reap the benefits. Progress is being made though. 2009's HB 2558 required a home and community support service agencies to help clients register for disaster evacuation assistance through 211. (211 is discussed at greater length in Chapter 6.)

## **High-Speed Rail**

High-speed rail is closer to becoming a reality in Central and Eastern Texas each year and could be a major boon for evacuation procedures. The committee heard from the Texas High Speed Rail and Transportation Corporation which informed that the typical high-speed rail train set accommodates 1000 travelers and allows for trains to depart the station at least every 5 minutes.

"Supplementing the state's current evacuation plans, true high-speed rail will compliment contraflow plans and other evacuation strategies put in place since hurricanes Katrina, Rita, and Ike by providing a safe, fast, efficient, and high-capacity evacuation alternative for each of the state's four most populous metro areas."<sup>121</sup>

Currently, passenger rail services in Texas are virtually useless for an evacuation. If a request for assistance is received 72 hours before landfall of a hurricane, Amtrak can transport up to 3642 evacuees from Houston to Dallas or up to 6,420 from Houston to a transfer point north of Houston. If a request is made with less notice, the number of evacuees who can be safely moved by rail would be even smaller.<sup>122</sup>

However federal funding and private financing could mean the expedition of high speed rail options in Texas. In 2005 statewide planning authority over rail was transferred to TxDOT from the Railroad Commission. TxDOT developed its first rail plan in 2005. Passed in 2009, HB 1382 required TxDOT to annually update a long term plan for statewide passenger rail. It is the committee's view that evacuation considerations be taken into account with all future passenger rail planning.

## **Progress**

During Hurricane Ike, the State evacuated 1.2 million people, including 12,500 individuals with special needs by ambulances and C-130 aircraft. The evacuation was a massive improvement from Hurricane Rita. According to HCOHSEM:

"What a difference regional planning and partnerships make. Even with the distinct difference in the circumstances between Hurricanes Rita and Ike, we saw dramatic improvements in the areas that were greatly lacking in 2005."<sup>123</sup>

---

HCOHSEM also informed the committee that during Ike there was adequate fuel supply on evacuation routes and for response vehicles - another advance from Rita. "The direct interaction between local offices of emergency management and the fuel industry was a complete turn-around from 2005."

The committee was informed by DSHS that TxSNETS proved successful during Hurricane Alex in tracking shelter populations, capacity and locations.<sup>124</sup> TxSNETS is a system of integrated equipment used to tag evacuees at evacuation on hubs with a bar-coded wristband. The system develops electronic manifests that can be shared with shelters, enables transportation-asset tracking by GPS, provides communication capability for vehicle drivers, and verifies evacuee arrival at shelters.

### **Pets and Animals**

Hurricanes Katrina and Rita also emphasized the challenges inherent in evacuating pets and other animals. Many pet owners would not evacuate unless provisions were made for their animals. Others evacuated but left their pets behind. Most motels, hotels, and other public lodging facilities would not accept pets.

As a result of these findings, the Governor directed that no person should be denied available transportation or shelter because he or she desired to evacuate with his or her companion animal; animals would accompany their owners in state-provided or state-contracted transportation vehicles. In March 2006, the Governor issued an Executive Order (RP57) requiring TDEM to develop and implement a plan to, "address the evacuation and shelter needs of individuals with companion animals."

As a result of RP57, each region established an Animal Issues Committee. Response plans address pet and service animal evacuation, and the Texas Animal Health Commission (TAHC), a member of the State Emergency Management Council, was designated to coordinate the evacuation and sheltering of animals.

Additionally, 2007's HB 88 required TDEM to assist political subdivisions in developing plans for the humane evacuation, transport, and temporary sheltering of service animals and household pets in a disaster.

### **Mandatory Evacuation**

In 2008, the Senate Committee on Transportation and Homeland Security noted that,

"the Governor can recommend evacuation, but the authority belongs to county judges and mayors ...Residents that refuse to evacuate and place themselves at risk often require the assistance of emergency rescue and recovery teams, putting those teams at risk as well...California and North Carolina have enacted legal guidelines for evacuations that enforce misdemeanor penalties against those that ignore evacuation orders."<sup>125</sup>

2009's HB 1831 authorized a county judge or mayor of a municipality who orders the evacuation of an area to compel persons who remain in the evacuated area to leave and to authorize the use of reasonable force to remove them. It also provided that a person who is rescued is civilly liable

---

for the costs of rescue efforts under certain circumstances.

## **Recommendations**

The Committee recommends that the Legislature further investigate how rail projects could aid evacuations.

The Committee recommends that the Legislature continue to encourage segmented mandatory evacuations in order to get medical special needs populations out of disaster areas before the general population.

The Committee recommends that the Legislature consider giving County Judges and Mayors the power to mandatorily evacuate certain facilities during voluntary evacuation.

The Committee recommends that the Legislature explore how requiring certain entities (such as hospices and home health caregivers) to provide real time online information related to persons in their care, would aid local authorities during evacuations.

The Committee recommends that the Legislature authorize pharmacies to prescribe supplementary medication to persons who are following a voluntary evacuation order.

The Committee recommends that the Legislature consider ways for 211 lists to be purged and updated by local jurisdictions in real time.

The Committee recommends that the Legislature fund a full time Texas Department of Emergency Management Disability Coordinator position at TDEM.

The Committee recommends that the Legislature consider how certain design features - such as "evaculanes" and others that enable easily implemented contraflow - could be utilized along coastal highways. Such features should expedite evacuation without encouraging irresponsible development.

---

## 8

### **FIRST RESPONSE EFFORTS**

Immediately after a disaster, state agencies, local governments, private providers of critical services, and volunteers respond to a variety of needs and problems faced by stricken communities. During Hurricane Ike, first responders assisted 5,798 Texans; rescuing over 3,540. Approximately 305 shelters opened across the state; and 38 volunteer organizations lent their services to those in need.<sup>126</sup> One electric company replaced over 8000 downed transmission poles.

Many of those needs are anticipated. For example, a major hurricane is likely to lead to broken power lines, damaged homes and stranded people. For such occurrences, first responders operate within pre-designed command structures and activate pre-designed contingency plans and responses - notwithstanding pre-event mitigation actions.

Other emergencies - such as a terrorist incident - occur without warning. Either way, state entities such as TDEM and DSHS have plans in place for responding to all manner of emergency scenarios including mass casualty incidents, catastrophic flooding and severe winter weather.

Nevertheless, emergencies are unique, forcing first responders to think on their feet as they coordinate and communicate amidst hazardous conditions. As such, mistakes are made that no amount of planning can mitigate. One emergency manager told the committee that it is easy for people to play "Monday morning quarterback" after a disaster - but decisions are made in real time. (After action reviews are a good way to play Monday morning quarter back in a constructive way.)

State lawmakers should consider ways to better support first responders - both individuals and entities - so that they can aid disaster stricken communities as effectively as possible.

#### **First Response and State Pre-Deployment of Assets**

The "first first-responders" to an incident are always local. Local law enforcement officials, fire services and EMS personnel mobilize their resources in response to natural and manmade events as they happen (in line with training, planning and command structures in place for different types of situations as outlined in previous chapters.)

However, in principle, a disaster is an emergency that overwhelms local resources past their surge capacity capabilities - meaning localities need the assistance of neighbors and state government. If state resources are inadequate to resolve an emergency situation, the Governor may request assistance from other states and the federal government pursuant to interstate compacts.<sup>127</sup>

Technically, the state does not provide supplemental support to local communities during disasters until it is requested. However, experience with previous disasters has enabled the state

---

to anticipate needs in advance of an emergency. If that emergency is "predictable" - like if a hurricane is expected to make landfall along the Texas coast or prolonged drought conditions make certain spots prone to wildfires - then state assets can be pre-deployed to vulnerable areas.

The State Emergency Plan states:

"Where the impact point of an impending threat is known with reasonable certainty and precautionary deployment of personnel and equipment and prepositioning of supplies can facilitate a rapid response, the State may preposition resources. The State Coordinator will coordinate with the Governor's Office regarding the prepositioning of state resources. The Governor must approve the activation and deployment of National Guard and State Guard assets."<sup>128</sup>

The state plan also notes that pre-deployment is a costly procedure. During 2010's Hurricane Alex, the state pre-deployed assets at a cost of over \$20 million.<sup>129</sup> Hurricane Dean, in 2007, has been classified by TDEM as a "near disaster" - in that considerable state, local, private and volunteer resources were mobilized for a hurricane that never had the impact it could have had.

Though costly - and in Dean's case unneeded - pre-deployment has several advantages. First and foremost, Texas acts based on risk not occurrence allowing for significantly increased response times - especially in light of the fact that deploying resources (be it meals or pumping equipment) during a disaster may be unusually problematic due to road conditions. Second, pre-deployment is at worst, a very useful training exercise. TDEM state in their Hurricane Dean post disaster evaluation that Dean "provided a very realistic and demanding test of the state's evacuation plans and procedures."<sup>130</sup>

Finally, the cost of properly preparing for a "near disaster" is always cheaper than a disaster. It is never a disappointment when disaster does not strike!

### **Deployable Teams**

The state of Texas has a number of deployable assets including SAR (search and rescue) and medical strike teams.

### **Rapid Response Teams**

If it appears a catastrophic hurricane will impact the Texas Coast, the state can pre-stage specialized teams with a capability to rapidly respond and provide immediate assistance as soon as it is safe to enter the disaster area.

The mission of the teams will be to enter and secure the impact area after impact, coordinate search and rescue, support continuity of government, initiate immediate mass care, and assess damages to begin recovery operations. At the request of area jurisdictions, no later than 60 hours prior to landfall, teams will establish and implement a preparedness and readiness posture by pre-positioning fully mission-capable forces forward in the area.

Teams operate under the Unified Command structure and interface with the DDC and local Emergency Management Directors. Forward Coordinating Elements (FCE) will deploy to the impacted area in advance of the teams to coordinate deployment. An essential function of



---

command structure will be to synchronize the local, state, and federal response.

### **Texas Task Force 1**

Texas Task Force 1 (TxTF-1) is sponsored by the Texas Engineering Extension Service (TEEX.) It is comprised of more than 450 personnel representing more than 60 jurisdictions and agencies from across the state of Texas, and is one of 28 teams in the national urban search and rescue system under FEMA. Headquartered in College Station, Texas Task Force 1 and TEEX coordinate statewide requests for search and rescue.

TxTF-1 is comprised of more than 500 emergency response personnel from 70 organizations and departments across the state. Task Force members are capable of deploying within four hours and are divided into three 70-member teams (red, white and blue). Each team is on a 30-day rotational call. Each team has five components: a command structure, a rescue group, a medical group, a logistics planning group and a search group, including canine search teams.

Hurricane Alex was TxTF-1's 7th deployment of 2010, the 81st deployment since 1997 and the 9th involving over 100 search and rescue personnel. Since 1997, 80% of the TxTF-1 deployments have involved rain, tropical storms or hurricanes. Hurricane Alex is the 29th deployment due to a hurricane.

The state also has Texas Task Force 2 based in the DFW area. It is composed primarily of the City of Dallas' Fire Department's Urban Search & Rescue team. They have extensive rescue equipment and special training in the event of a building collapse or other major rescue operations typically seen after hurricanes. Tx-TF2 has been activated several times since Hurricane Katrina to assist in damaged areas along the Texas Gulf. They are also available to respond on national incidents if needed. The State assists in funding the team which authorizes their statewide response and helps fund equipment and training.<sup>131</sup>

The state has the opportunity, if properly funded to create more task forces. (California has at least seven, several of which are also FEMA SAR teams.) Having a properly funded Task Force in the Lower Rio Grande Valley would potentially mitigate the costs involved in pre-deployment during Hurricane watches in South Texas as well as providing valuable training and infrastructure to the poorest part of the state.

### **Public Works Response Teams and Critical Infrastructure**

The Public Works Response Team provides critical assistance to local jurisdictions in restoring services necessary to begin the recovery process. The After Action Review process by the National Emergency Response and Rescue Training Center assists in refining response and actions to lessen the potential impact for future recovery. TEEX has capabilities to provide assistance with economic development and continuity planning to assist jurisdictions in recovery.

The PWRT is a State asset deployed by the State Operations Center (SOC) under the direction of TDEM, as required to support local jurisdictions in the event of a catastrophic incident. Personnel are recruited from local jurisdictions and coordinated with other State Agencies. The

---

teams are made from identified public works disciplines and will function under Memorandums of Understanding and the Texas Statewide Mutual Aid System. Volunteers from municipalities and counties get training and re-imburement.

The PWRT supports local jurisdictions in their response to a catastrophic event by providing public works technical assistance as needed to facilitate reentry. TEEEX has recruited team members from across Texas who are highly skilled and knowledgeable in public works activities such as utilities (electrical, gas, water, wastewater, storm water, environmental safety and compliance and communications), debris clearance, structural safety, transportation systems, traffic engineering and management, fleet services, and parks and recreation. During Hurricane Alex, the PWRT provided pumping resources to several cities whose wastewater plans had been flooded.<sup>132</sup>

### **Debris Removal Teams**

Texas' road network involves 296,000 miles of highways over 268,000 square miles of land. After hurricane Ike, more than 550 TxDOT employees deployed from 10 of the department's inland districts and joined nearly 1,200 local employees from the Houston and Beaumont districts to clear debris and open roads.

Within 48 hours, most roadways were essentially clear of debris. To supplement the work of TxDOT crews and expedite debris removal, the department utilized over one hundred emergency debris removal contracts. The 2008 House Select Committee on Hurricane Ike Devastation recommended that TxDOT be required to, "have pre-position contracts near areas expected to suffer a severe weather event that are expected to produce debris so that contractors are ready to go as soon as possible."<sup>133</sup> In keeping with legislation enacted in the 81st session, TxDOT has five non-site-specific callout contracts for natural disaster related emergency debris removal, totaling \$9.1 million.<sup>134</sup>

### **Interoperability**

Disasters involve the coordination between many different agencies, authorities and private entities. The ability to communicate is vital -especially in an age of mutual aid, where first responders can be pulled from across the state to respond to an incident.

Communications interoperability is the ability of public safety agencies (e.g., police, fire, EMS) and service agencies (e.g., public works, transportation, and hospitals) to talk within and across agencies and jurisdictions via radio and associated communications systems, regardless of which technologies are being utilized. However, there are a number of proprietary radio technologies in use throughout Texas, meaning that first responders do not necessarily have communication equipment that can work together.

In 2005, Governor Perry set a priority objective to improve radio interoperability throughout Texas by 2007. Local elected officials, using homeland security funding, worked within the 24 regional councils to achieve this critical capability.

The Texas Statewide Communications Interoperability Plan (SCIP) provides the overarching

---

emergency communications strategy to address communications deficiencies that exist at the state, regional and local levels. The SCIP provides a means for deciding on grant funding disbursement for shared, regional interoperable communications. It also serves as a roadmap to achieve the communications interoperability needed to enable public safety practitioners to respond anywhere in the state and have radio communications with other first responders while using their own agency's equipment.

The SCIP requires Texas agencies to be fully "Project 25 compliant" (P25) by January 1, 2015. P25 is a digital "suite of standards" - meanings that any manufacturer's radios that are "P25 compliant" can communicate with any other vendor radios that have the same certification and operate in the same radio frequency band. P25 essentially "skews the market" in favor of interoperability by forcing communications companies who want to do business with Texas agencies to sell p25 compliant systems.

Another way to improve interoperability is to purchase equipment that acts as a middle man between different technologies. For example, Dallas has a system where the departments of police, fire and aviation subscribe to an Interoperable Communications Service that is provided by a private contractor. The agencies will have access to an encrypted network allowing them to communicate voice, video and data information with one another using their existing radios and networks.<sup>135</sup>

In addition, regional governments from El Paso to Brownsville, in partnership with DPS formed the Texas Border Communications Coalition to develop solutions to immediate communications problems and a plan for interoperability along Texas' border with Mexico. The coalition's first major success was obtaining a 2007 Public Safety Interoperable Communications award of more than \$9 million.<sup>136</sup>

The committee heard from the Texas Association of Regional Councils (TARC) who favor a permanent funding stream to support Radio Interoperability infrastructure. TARC believe this would allow for long-term maintenance and upgrades of the regional systems necessary to establish and maintain the State Communications Interoperability Plan (SCIP).<sup>137</sup>

## **Electrical Utilities**

Electrical utilities play an important role in first response. The committee heard from Centerpoint Energy who maintain electric transmission and distribution for a 5000 square mile service territory in and around Houston. Centerpoint conduct restoration of service drills and run a public hurricane workshop annually. Restoration is prioritized to give other first responders access to electricity and enable continuity of government. After Hurricane Ike, Centerpoint replaced 8500 (mostly wooden) transition poles, coordinating with the SOC, regional DDCs, local EOCs and the media.<sup>138</sup>

The Committee also talked to AEP Texas, another transmission and distribution company whose service area includes much of South Texas. They detailed how they have mutual assistance compacts in place with over 30 electrical utilities around the nation in order to expedite restoration through increased manpower after a disaster.<sup>139</sup>

---

During Hurricane Dolly in 2008, 11 counties within AEP's service area were affected. Over 100 poles and 523 transformers needed to be replaced. 212,000 customers lost power as did over 1000 critical load/care customers (such as hospital and government buildings.) Full restoration took eight days, though most outages were fixed within 3 days. 23 companies assisted AEP (including damage assessors, tree trimmers and mechanics.)

The committee finally spoke to Oncor, another distribution and transmission company whose service area includes much of north Texas. They elaborated on the concept of service restoration plans after a hurricane. Oncor's plan has four stages of priority:

1. Service to facilities vital to safety, health and welfare - such as hospitals, water treatment plants, and public service facilities.
2. Service on major power lines servicing thousands of customers
3. Service for sections on lines serving hundreds of customers
4. Service on lines/equipment that service less than ten customers.<sup>140</sup>

Power restoration is expensive for utility providers. AEP's costs related to restoration after hurricane Dolly included 94,000 hotel room nights stays, 859,543 meals and 11,000 mutual assistance crews from 35 states and Canada. Costs associated with disaster recovery and first response are recoverable through rate cases. However, as noted by the 2008 House Select Committee on Hurricane Ike Storm Devastation, the last thing communities recovering from a disaster need is an increase in their utility bills.<sup>141</sup>

Electric grid hardening can help mitigate the need for expensive recovery efforts. However, transmission line hardening can be costly (underground lines) or unaesthetic (metal rather than wooden poles.) The 2008 House Select Committee on Hurricane Ike Devastation to the Texas Gulf Coast recommended that, "Legislation should be passed to give the Public Utility Commission the statutory authority to require electric utility companies to file with the commission a plan to improve its infrastructure or infrastructure maintenance (Harden the Grid) in order to minimize long term outages on the electric utility's system as a result of major weather related events."

By May 2011, electrical utilities will have to file five year hardening plan summaries with the Public Utility Commission of Texas updating them annually. Such hardening activities are ultimately passed on to consumers - however those consumers have chosen to reside in hazard prone areas. It was suggested to the committee that homebuyers should be informed of the reality and risks of purchasing a home in an evacuation area. The same may be true of potential homebuyers in areas prone to hurricane/tropical storm wind damage.

### **Community Preparedness**

The Texas Homeland Security Strategic Plan states that, "Texans have a long history of community involvement. Citizens are a valuable source of prevention, preparedness, and response and recovery capabilities. By getting citizens involved in homeland security efforts, every community will be safer and better prepared."<sup>142</sup>

Committee members heard from Houston Emergency Preparedness staff who stated the

---

following:

"Community preparedness is perhaps our greatest challenge but it also yields the greatest results. We can't forget that by definition, a disaster overwhelms local resources. Harris County Citizen Corps and its volunteers help fill that gap."<sup>143</sup>

The Texas Citizen Corps program, managed locally by local Citizen Corps Councils, helps drive local citizen participation by coordinating various disaster preparedness programs, developing community action plans, assessing possible threats, and identifying local resources.

Citizen Corps programs include:

- The Community Emergency Response Team (CERT) Program, which trains people in basic disaster response skills.
- The Fire Corps Program, which allows citizens to assist fire departments in a range of activities including fire safety outreach, youth programs, and administrative support.
- The Volunteers in Policing (VIPs) Program, which connects citizens to law enforcement volunteer opportunities.
- The Neighborhood Watch Program, which incorporates terrorism awareness education into its existing neighborhood crime prevention organizations.
- The Medical Reserve Corps Program, which allows medical, public health and other volunteers to offer their expertise to their communities, particularly during emergencies and other times of need.

The Harris County Citizen programs such as CERT and VIP mean that the County now has over 17,000 disaster trained volunteers.<sup>144</sup> Particularly of note are the growing number Spanish CERT classes provided in Harris, which have 100 % participation and graduation.<sup>145</sup> In Texas there are currently 82 Citizen Corps Councils, 442 CERTs, 89 Fire Corps Programs, 82 VIPs Programs, and 1,599 Neighborhood Watches that leverage Citizen Corps resources. Texas ranks first in the nation in CERT and Fire Corps involvement.

According to the Texas Association of Regional Councils, over 700 people have been through the CERT "Train-the-Trainer" course. - In many cases CERT volunteers have been integrated into bioterrorism and pandemic influenza mass prophylaxis preparedness and been integrated into hurricane response sheltering operations.<sup>146</sup>

Texans have other opportunities to bolster homeland security as well. For example, "Not Our Waterways (NOW)" is a community outreach program designed to provide the people who live, work and play throughout the Brownsville Navigation District a means of reporting any suspicious behavior they may witness without fear of retribution or retaliation. The program

---

is sponsored in part by the Port of Brownsville along with the assistance of state and local law enforcement agencies. The program is promoted in via posters, stickers, public service announcements and program spokespersons.

This level of citizen participation across the state is evidence that Texans are eager to play a role in emergency preparedness. The committee head from the American Red Cross who said that mental health studies have shown that individuals who have appropriate tools and mechanisms to address unexpected situations are more likely to return quickly to pre-disaster status. Citizen preparedness helps to disseminate those tools and boost those mechanisms.

"The American Red Cross has learned in recent years that there are two key levers that can move citizens to become prepared – schools and employers. If a child comes home with an assignment to show the family emergency plan, parents are moved to act. If a worker comes home with a request from a supervisor that the family knows what it will do in an emergency so the employee can report to work, preparedness happens."<sup>147</sup>

## **Mass Care**

The Salvation Army is the primary agency for Annex C of the State Emergency Plan while the American Red Cross is a supporting agency. Both organizations are present in the State Operations Center and Disaster District Committees during major emergencies and both organizations are members of the Emergency Management Council. (it is worth noting that they are the only council members that are not state agencies.)

The Salvation Army, representing North Texas' impressive grant-funded, multi-agency "Mass Care Task Force," and reported their finding to the committee.

The MCTF has set the goal of being able to help 37,500 people who could require immediate food, shelter, and humanitarian assistance in the wake of an evacuation or disaster. In order to manage that, MCTF agencies have created a plan to "activate" the MCTF in a major emergency - thus reducing the doubling up of efforts and improving communication.

A recent MCTF report states that up to 40 shelter facilities would be required to care for 37,500 people - meaning the task force needs to have a minimum of 53 facilities in their inventory. Currently task force members only have the resources to shelter 25,257 disaster victims. The MCTF estimates that approximately 24,700 volunteers will be required to field a full MCTF activation but currently only 3,960 have been identified. Furthermore, MCTF estimates that they only have food supplies stockpiled to serve 1,700 disaster victims.

MCTF's response to these issues includes plans to:

- Expand warehouse capacity for equipment, supplies, and reserve food stock necessary for full activation during a disaster.
- Strengthen relationships with municipalities and synchronize understandings of shelter locations and capacities.
- Improve procedures to utilize spontaneous volunteers who wish to help during a disaster.

- 
- Improve the sharing of information and instructions with other key organizations, such as 211 and fire and police departments so that all agencies are distributing uniform instructions to the public.

In El Paso, the Red Cross told the committee that during the 2006 storm water floods, their resources were stretched as they tried to accommodate nearly 1000 people needing to be sheltered. The Red Cross in El Paso is drafting plans to be able to accommodate a major disaster that could lead up to 10% of the population - around 80,000 people - needing assistance. Such a disaster would mean roughly 25,000 homes had been damaged or destroyed and require up to 60,000 meals a day to be dispensed.

In order for mass care organizations to achieve these goals, the state should consider creating a tax free holiday (similar to the school supplies holiday) perhaps during national preparedness month where Texans can purchase emergency supplies and equipment. Citizen Preparedness aids Mass Care Providers in a number of ways. First it lessens the amount of people needing to seek assistance from care organizations (allowing them to focus on the most vulnerable.) Second, studies have shown that citizen preparedness improves the ability of people to cope with the burden that disasters place upon them - lessening the need for people to seek counseling and disaster mental health services that will already be strained.

### **Public-Private Partnerships**

Public private partnerships are a feature of first response, pre-deployment and recovery efforts. Such partnerships are advantageous because they utilize existing distribution networks (like retail store supply chains) rather than creating new ones. For example, during H1N1, DSHS utilized existing pharmacies rather than setting up its own points of distribution. (See Chapter 3.)

Likewise, the State Fuel Team is made up of private businesses that coordinate with the state to ensure fuel availability during a disaster. Team members include representatives from the Texas Oil and Gas Association, the Texas Petroleum Marketers and Convenience Store Association, supply terminals, distributors, retailers, and third party Common Carrier transporters. The team can allow for non-traditional supply arrangements among carriers and retailers in order to meet the demand for fuel, while still observing safety considerations.

Faith based groups and volunteer organizations play an important role during first response and pre-deployment as well. The state contracts with entities like the Red Cross, the Salvation Army and Baptist Child and Family Services to provide shelters and meals for disaster victims. Other groups provide services on a non contractual basis.

For example the Texas Society of Architects provide services to disaster victims through its subsidiary, Disaster Action Inc. Volunteer architects assess the damage caused by an event to single family homes, providing documentation for the owners. The documentation helps homeowners to negotiate the complexities of government programs, insurance claims and repair services. Volunteers are covered by "Good Samaritan" legislation which makes them immune from civil damages (with the exception of gross negligence or willful misconduct.) However, the legislation has to be "activated" during a disaster by a federal, state or local official. If it is

---

not activated by a federal or state official, activation must be sought on a locality by locality basis.<sup>148</sup>

Likewise, medical personnel can volunteer to help bolster surge capacity and first response capability in a disaster area. However, according to DPS, some health professionals, mental health providers, and veterinarians may be reluctant to volunteer to assist in treating human and animal victims during a disaster due to potential legal liability concerns.<sup>149</sup>

### **Looking After First Responders and Volunteers**

There are a number of steps the state can take to address the needs of first responders. Looking after first responders enables them to better look after those whom they serve - disaster victims - and may lead to an increased number of such personnel at the state's disposal.

The expansion and consolidation of "Good Samaritan" legislation is one area where the Legislature could act. Volunteer health and medical provider participation in disaster operations might be increased by amending or strengthening state laws dealing with liability protection, qualifications, and credentialing for volunteers. Such action could be coupled with more stringent penalties for scams and exploitative business practices in disaster areas. Furthermore, such action would certainly not mean legal protection for persons who committed gross negligence or incompetence.

## **Statutory Progress**

### **2005**

HB 1577 provided that a physician assistant who volunteers in a disaster area may perform certain medical tasks that would usually require physician supervision. It also allows a physician assistant with out-of-state credentials to perform medical tasks in Texas during emergency circumstances.

SB 513 extended volunteer immunity, under certain conditions, that occurs in giving care, assistance, or advice relating to the management of disaster when help is requested by an authorized governmental authority.

### **2007**

HB 4409 extended the civil liability exemption for first responders performing an activity related to sheltering or housing individuals in connection with the evacuation of an area stricken or threatened by disaster.

SB 11 exempted an authorized emergency vehicle from payment of a toll regardless of whether it is responding to an emergency

HB 1205 would have prohibited an employer from firing employees that are also volunteer emergency responders and who were absent from, or late to, employment due to responding to



---

an emergency. The Governor vetoed the legislation reasoning that, "“Private employers should be allowed to continue to develop their own employment leave policies free of more government mandates. Further, this bill allows for a new civil cause-of-action to be created, thereby unnecessarily increasing litigation in the state.” The bill provided that such employees were not entitled to be absent more than 14 days in a calendar year unless the absence is approved by the employer and it required the employee to make a reasonable effort to notify the employer about volunteer actions. The employer would have been authorized to reduce the employee’s wages or to require the employee to take existing leave time when volunteering.

## **2009**

The term “first responder” was amended by Senate Bill 1409 for purposes of the immunization registry to mean any federal, state, local, or private personnel who may respond to a disaster or any related personnel that provide support services during the prevention, response, and recovery phases of a disaster. This will help ensure first responders are healthy during public health emergencies.

HB 1831 authorized a broad swath of state employees who respond to disasters to take compensatory time off during the 18-month period following a deployment. This allows first responders to be properly rewarded for grueling deployments during disasters, which will likely help prevent burnout and improve work-life balance.

## **Recommendations**

The committee recommends the Legislature consider the parts of statute which exempt first responders from certain liabilities to be clarified, expanded and consolidated into a single statute.

The committee recommends that the Legislature consider enabling legislation, which exempts first responders from certain liabilities, to be automatically activated in a county when a declaration of an emergency has been made by either the Governor or a county judge.

The committee recommends that statute be tightened regarding scams and exploitative business practices in disaster areas.

The committee recommends the state consider incentives for private businesses whose employees are volunteer first responders that will encourage those businesses to release volunteers during (and rest volunteers after) a disaster.

The committee recommends the Legislature adequately fund the state's ability to bolster its medical strike team's capability.

The committee recommends the Legislature consolidate Texas' medical strike team community and authorize it to raise revenue through training local and out-of-state medical first responders.

The committee recommends the Legislature adequately fund the state's ability to achieve communications interoperability.

---

The committee recommends the Legislature consider boosting tax incentives for private businesses involved in mass care provision in order to encourage such activity.

The committee recommends the Legislature institute a tax free holiday during national preparedness month exempting emergency preparedness products from sales tax in an effort to boost community preparedness and awareness.

The committee recommends the Legislature consider allowing state workers to have paid time off for community preparedness activities and using tax incentives to encourage businesses to allow their employees to do the same.

---

# 9

## CRITICAL INFRASTRUCTURE AND KEY RESOURCES

Statute defines critical infrastructure as, "Public or private assets, systems, and functions," that are, "vital to the security, governance, public health and safety, economy, or morale of the state or the nation."<sup>150</sup> Critical infrastructure and key resources (CI/KR) include ports, electrical utilities, hospitals, dams, refineries and roads. (For the purposes of the report the committee have included housing.)

Texas' CI/KR includes 16 major military installations, 150 major dams, 21 international airports, 12 deep draft ports, 67 major petrochemical facilities, 210 power plants and 615 hospitals. Texas is also covered by 296,000 miles of roads, 10,000 miles of railroad line and 76,000 miles of hazardous liquid pipeline.<sup>151</sup>

According to the Texas Homeland Security Strategic Plan,

"The vast majority of CI/KR sites in Texas are privately owned and operated, and many have their own security forces. To secure these sites, the power of public-private partnerships must be maximized to ensure that individual citizens, private security forces, commercial security measures, and governmental assets cooperate in every aspect of safeguarding CI/KRs. This includes sharing critical information to the maximum extent possible; joint public-private planning, training, and exercising; joint funding; and communications interoperability."<sup>152</sup>

As this report has discussed in Chapter 2, many parts of Texas' critical infrastructure are of national importance - Texas petroleum refineries represent 27% of the nation's refining capability. Therefore it is a federal responsibility as well as a state and private responsibility to finance their protection.

Nevertheless, the Legislature can take a leading role in making smart investments that enhance the protection of key Texas assets. For example, 2005's SB 9 enhanced from a Class B misdemeanor to a Class A misdemeanor the penalty for trespassing on or in a critical infrastructure facility. (The measure was a recommendation of the Senate Committee on Infrastructure Development and Security's report to the 79th Legislature.) Coupled with recent innovations in electronic credentialing (see below), such measures should improve security without harming trade.

### **State custodial facilities**

Certain state and locally owned CI/KR must be situated in hazard prone areas - such as wastewater treatment plants, ports or DSHS regional offices. However other state facilities such as data centers and detention facilities do not necessarily have to be placed in such areas.

Placing them in such areas can be problematic. For example, during an emergency evacuation, the Texas Department of Criminal Justice (TDCJ) has to evacuate offenders from the immediate

---

coast, especially from the Beaumont, Galveston, and Brazoria regions. Evacuation decisions must often be made early to take account of which offenders need to evacuate, which will shelter in place, and whether two or more trips can be made into the impacted area based upon the forecast track and when the general public will evacuate. Evacuations are a serious strain of TDCJ transportation resources.

Prior to the Hurricane Ike's landfall, TDCJ evacuated over 6,500 incarcerated and paroled offenders from the Gulf Coast region. During the peak of the storm damage, 42 correctional units were without power and operating on generator power.<sup>153</sup>

The Senate Transportation and Homeland Security Committee recommended in 2008 that:

"The Legislature should prohibit construction of state-owned special needs and detention facilities in high risk areas, and bar construction of new state facilities for special needs individuals (including state schools and residential treatment facilities) and for offenders (including prisons, jails, and youth detention facilities) in hurricane surge zones or floodplains."<sup>154</sup>

Prohibiting or discouraging the accommodation of state infrastructure - which would include higher education facilities - in hazard prone areas may also discourage irresponsible development in those areas. However, prohibiting the construction of special needs and detention facilities in hazard prone areas may mean that families who have members abiding in such facilities may lack access to their loved ones. With that in mind, hardening facilities in hazard prone areas may be a better option.

## **Cyber Infrastructure**

The state owns and operates a significant amount of "cyber infrastructure" - including data centers and governmental websites (that often provide online services.) The Texas Homeland Security Strategic Plan includes provisions for cyber infrastructure stating that it is a "homeland security responsibility."

The committee heard from the Department of Information (DIR) that has been tasked with centralizing the state's IT assets. Previously, the agencies managed their own IT infrastructure.)

DIR is currently one of the agencies undergoing the Sunset Advisory Commission's review process. The last time DIR was under review was 1996, when the state's cyber infrastructure was embryonic. Sunset staff have called for DIR services and programs to operate under increased oversight.<sup>155</sup> Sunset staff also raised concerns regarding the wrangling between DIR and IBM over contractual obligations to provide the aforementioned data center services to state agencies. The staff report states that the dispute is, "increasing risks to the State due to aging of critical technology infrastructure and lack of consistent data backup."<sup>156</sup>

The Texas Legislative Council and the State Comptroller's office also have a role in cyber preparedness. TLC maintains redundant computer and networking systems in order to maintain operations in the event of system failure. The Comptroller's office participates in the U.S. Department of Homeland Security's Cyber Storm III program exercise, in coordination with all sectors of critical infrastructure both domestic and international.

---

The comptroller's office told the committee that:

"As a result of the rising threat of cyber terrorism and its potential for devastating effects upon our nation's critical infrastructure, cyber incident response programs are increasingly being merged with more traditional emergency response programs. The state should consider a more integrated command and control structure to provide for comprehensive emergency response and communication, regardless of the nature of the threat."<sup>157</sup>

The state's cyber infrastructure will continue to expand enabling greater utilization of telecommuting for state employees - an obvious boon to continuity of government operations during an emergency. It is imperative that cyber infrastructure is properly managed and maintained.

### **Port Security**

Texas ports represent 19% of U.S. port tonnage contributing one million jobs and \$5 billion to state tax coffers.<sup>158</sup> The Committee heard from two ports, the Port of Houston and the Port of Brownsville.

### **Houston Ship Channel Security District**

The Houston Ship Channel region is made up of the Port of Houston authority and over 150 private industrial companies. It includes 40% of U.S. chemical refining capacity, 14% of U.S. crude refining capacity, and a significant amount of U.S. jet fuel capacity. The Ship Channel region generates approximately a \$120 billion annual impact on the Texas economy. A shut down of the refining and chemical industry in this region would impact the national, regional, state and local economies. The Texas economy alone could suffer a \$320 million per day impact from a catastrophic business disruption in the Ship Channel region.

The Committee heard from representatives of the Houston Ship Channel Security District (HSCSD) - a pioneering public-private partnership that is both a source of revenue and a means of leveraging funds for the channel's security.

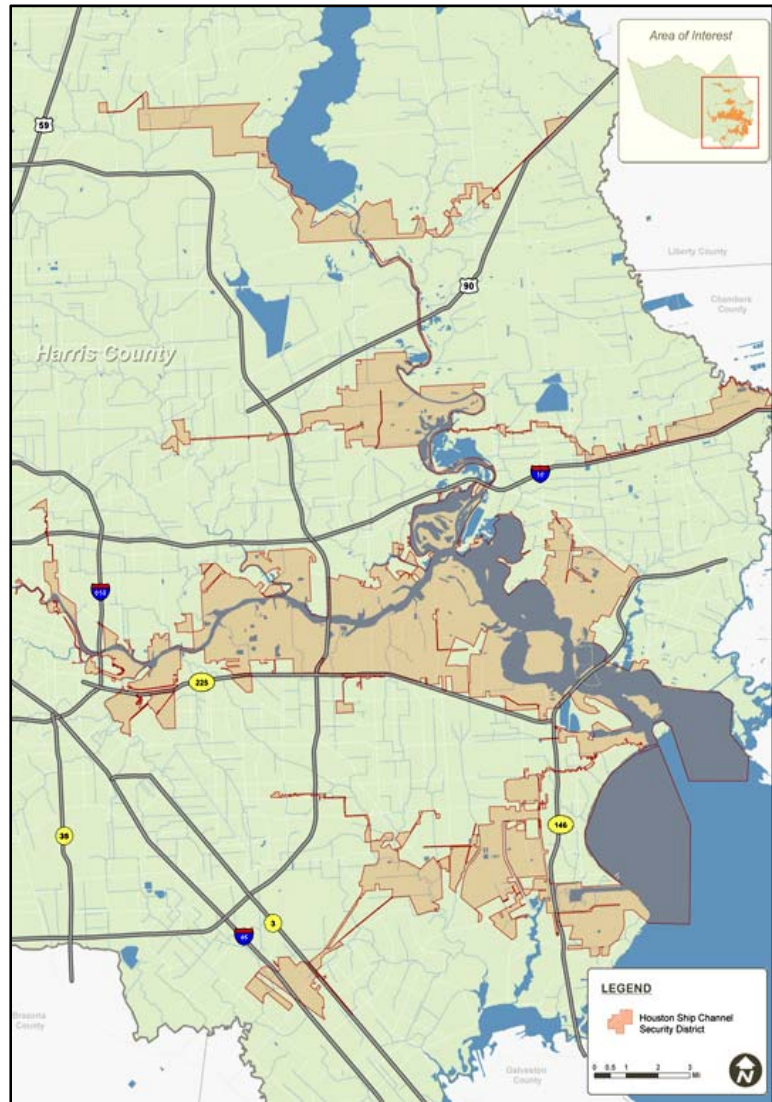
Statutory authority for the HSCSD was created in the 80th Legislature. The Port of Houston Authority, Harris County and private petrochemical, chemical and refining facilities near the Houston Ship Channel, represented by the East Harris County Manufacturers Association supported the establishment of the HSCSD.<sup>159</sup> In essence, the HSCSD represents the desire of industrial entities to tax themselves in order to leverage federal funding and promote cooperation.

The district is able to levy assessments upon entities within its boundaries (excluding residential property, and most retail or service businesses and utilities) in order to raise funds for the maintenance and repair of security infrastructure.

This ability has been used to secure federal grants to purchase security equipment - in other words, the federal government buys the tools while the district pays for the upkeep of those tools.

So far, the district has obtained boat mounted underwater cameras and a port information network that connects the security technologies of HSCSD members.

In addition to providing more than \$30 million in improved security infrastructure, the District will establish a framework of security operations, including dedicated and visible law enforcement personnel, marked patrol cars and patrol boats, as well as continuous surveillance and detection throughout the security network.



Houston Ship Channel Security District

Members within the district will receive improved rapid response to security concerns from the dedicated personnel. The committee heard that the ultimate aim of amped up security is mitigation - to "avert people wanting to mess with us."<sup>160</sup> Fused hi-tech security infrastructure within the context of a regional public private partnership is certainly a large step toward achieving that goal.

As discussed in Chapter 2, the Houston Ship Channel is vulnerable to hurricane storm surge. The security district has neither the statutory purview nor the revenue raising capability to fund the massive mitigation projects needed to remove those vulnerabilities while the Gulf Coast Community Surge Protection and Recovery District (see Chapter 2) has no taxing authority. However, from a strictly "port security" point of view, the district appears to be a practice that could be replicated across the state in regions where CI/KR entities cluster (such as at other ports.)

---

Statute requires a District to be set up by a majority of industry owners that hold a majority of the assessed value within a proposed district. The agreement to create a district must be approved by the Commissioner's Court of the County within which the district resides. Currently, statute limits the creation of such a district to Harris County. If opened up to other CI/KR areas of the state, the following items should be considered.

- The HSCSD has very broad powers, which maybe should be tightened for statewide application. For example, the HSCSD is authorized to do "anything necessary convenient or desirable to carry out the powers expressly granted or implied."<sup>161</sup>
- The HSCSD is able to impose liens and recover attorney's fees from members of a district who do not pay their assessments.
- If the HSCSD were to disband, Harris County would be responsible for any debts or assets the district had at the time of dissolution.
- Unlike certain drainage districts (see Chapter 4,) the HSCSD has no bonding authority and relies heavily on federal grants and maintains its operations on a pay as you go basis.

### **The Port of Brownsville**

The Port of Brownsville is governed by the Brownsville Navigation District, a political subdivision of the State of Texas. The port receives around 500 trucks per day and 1500-3500 railcars per month. (All of which are screened for threats by District Security personnel.)

The Port of Brownsville is part of the federal pilot initiative, the Transportation Worker Identification Credential program (TWIC.) Established by Congress through the Maritime Transportation Security Act, TWIC is administered by the Transportation Security Administration and U.S. Coast Guard. TWIC cards are tamper-resistant biometric credentials that are issued to workers who require unescorted access to secure areas of participating ports.

In addition the port maintains a secure facilities plan and is part of the Rio Grande Valley Security Cooperative (RGVSC) - another public-private partnership which includes the Port of Harlingen, the Port of Port Isabel, and a number of private industry entities. The committee heard that so far the RGVSC has helped secure \$9m for security improvement projects from numerous federal grant programs. Unlike the HSCSD, the RGVSC is an ad hoc group, which cannot raise revenue (that may be leveraged to draw down even more federal dollars.)

Lawmakers should consider probing the relationship between homeland security and weather related threats when approaching critical infrastructure protection initiatives.

Similar to the HSCSD, the RGVSC does not secure funding for weather related threats. The Committee heard that during Hurricane Dolly, the port was site operational within 24 hours. However the Brownsville Ship Channel - upon which the port sits and which is federally

---

administrated - was closed for 96 hours after Dolly. The committee was told that port and ship channel industrial entities, "were fortunate that there was not a significant amount of damage due to Hurricane Dolly."<sup>162</sup>

## **Housing**

The proper handling of housing issues after a disaster is critical to a community's ability to recover. Stricter building codes and development laws in hazard prone areas mitigate future need for temporary housing after disasters. However, many older structures will continue to exist (and be damaged by disasters) despite such measures.

According to the analysis provided by TDHCA, approximately 35,000 individuals sought emergency shelter solutions during Hurricane Ike. For future disasters, TDHCA has been directed by statute to enter into pre-event contracts that may be activated to obtain temporary or emergency housing as needed following the disaster. (2009's HB 4409.) The bill provides that the costs of such contracts may be paid from the Stat's Disaster Contingency Fund. Although the Department is persisting with efforts to secure such contracts, to date it has not been successful.

The Texas Manufactured Housing Association (TMHA) proposed to the committee, "a systematic temporary housing solution ready to be implemented the moment disaster strikes" through ramped up production and distribution of manufactured housing. (Previous housing solutions relied on the disbursement of FEMA stockpiled mobile homes.) TMHA reason that disaster victims can expect to be in "temporary housing" for two-to-five years following a disaster - rather than nine-to-eighteen months.<sup>163</sup>

A state led manufactured housing solution would provide several benefits, including short term local job creation, better standards of temporary housing for disaster victims (including HUD building code compliance) and not having to rely on FEMA.

Issues include whether or not TDHCA and local governments have the bureaucratic infrastructure in place to oversee such a solution and the risk of federal funds not complimenting state expenditures. TDHCA told the committee that many communities do not have systems in place to expedite placement of temporary housing options in the event of a disaster. TDHCA added that many communities do not have plans in place that delineate the role local government will play, (e.g., site designation, site preparation, permitting, zoning, inspections, utility, and wastewater connections, etc.), the kinds of units needed or acceptable to the community, and other related issues.

TDHCA also told the committee that,

"(TDHCA) lack (the) federal funding for staff to assist local governments coordinate housing placement and has limited capacity to manage and coordinate the installation of the units between the retailer and the community. We believe that this local coordination role is more logically a function of the Governor's Division of Emergency Management as it is already in contact with counties regarding evacuations or other emergency disaster response."<sup>164</sup>

Despite these concerns, the committee believes the issue of post disaster housing is of such



---

importance to warrant further investigation of TMHA's proposal and TDHCA's role. It is also worth noting three developments. First, TDHCA is being reviewed by the Sunset Advisory Commission whose staff report states that:

"The federal government has responded to recent storms with about \$3.5 billion in long-term disaster recovery ... The State has jointly administered these disaster recovery programs through the Texas Department of Housing and Community Affairs and Texas Department of Rural Affairs, under the guidance of the Office of the Governor. To date, the State has not effectively planned for long-term recovery or the use of these funds, increasing the amount of time it takes to rebuild Texas communities, and increasing the harms suffered by communities. Requiring the Department...to develop a long-term recovery plan, and train local administrators on its implementation, would help ensure that communities and state agencies are well positioned to more efficiently administer any future federal recovery funds."<sup>165</sup>

Second, the Council of State Community Development Agencies is calling on Congress to, "relax the regulations governing the emergency appropriation for disasters to enable states to spend the funds more expeditiously and get help to the people that so desperately need it."<sup>166</sup>

Third, in a 2009 exceptional item request for the 2010-11 biennium, the Office of Rural and County Affairs (now the Texas Department of Rural Affairs) asked to establish an internal Disaster Relief and Recovery Reserve Fund that would be used to draw down federal disaster dollars. The request was not granted. TDRA believe the lack of contingency funds represents a "roadblock to recovery" and that such funds would, "allow the agency to begin activities with our potentially eligible grantees (cities and counties) between the time the disaster happens and the time that federal funds finally arrive in Texas."<sup>167</sup>

Disaster Contingency Funding is discussed at length in the conclusion of this report.

### **Universities and School Districts**

The security incidents at the University of Texas (Sept 28, 2010) and Texas A&M (Oct 28, 2010) happened as the committee was drafting its final report. Appropriate information was not available for comprehensive comment to be made regarding their relevance to the committee's charge. (Reference is made to the former incident in Chapter 6.)

#### **The University of Texas at El Paso**

The committee heard from The University of Texas at El Paso's (UTEP) Environmental Health and Safety Office (EH&S) In the academic year 2009-10 EH&S provided 3,800 contact hours of safety training to over 1700 individuals on 14 different safety prevention and preparedness topics.

EH&S personnel review and approve plans for campus preparedness and oversee activities that are recognized as having elevated risk. Such activities include the use of pyrotechnics and other stage effects used in performances and celebrations, particularly where audiences or performers may be harmed by falling debris or burning embers. EH&S have partnered with the UTEP Police Department over the last two years to sound alerts for the campus using a multi-modal emergency communications system. The systems relays alerts with email, text message and loud speakers.

---

Since the beginning of 2009, UTEP's Office of Emergency Management has recorded 31 emergency management activities that were used to prepare, train, educate and increase awareness of university stakeholders. These activities range from Webinars to table tops and planning exercises and have the affect of bringing together various departments at different times to address the important topic of Emergency Preparedness and Business Continuity planning.<sup>168</sup>

### **Harris County School Districts**

Similar to universities, many schools employ multi-modal alert systems as well. The committee also heard from representatives of the Center for Safe and Secure Schools (housed within the Harris County Department of Education) regarding the Safe School Alerts System, which provides school closure and reopening information for schools in greater Harris County.

The Safe School Alerts System is a web-based emergency communications tool that enables school districts to post information regarding the status of campuses within the respective districts. The system is capable of providing official, emergency alerts via the Web, SMS (text messages), e-mail, and RSS feeds. Media, emergency management officials and the education and at-large community benefit from the alerts.<sup>169</sup>

This site is uniquely designed to allow districts to quickly, efficiently and accurately notify the media, emergency management officials and the community about the emergency-related status of campuses within each of the Center's 29 Member Districts.

Although district offices will benefit from the information shared through this site during this year's hurricane season, they have also utilized the site for other incidents such as winter weather events. The site allows districts to quickly determine the status of campuses within each school district and evaluate the impact on operations such as traffic, business disruption and availability of school resources.

## **Progress**

Programs targeting standards for disaster preparedness among private sector companies are being developed across the nation to be used to mitigate disasters. The Department of Homeland Security (DHS) is moving forward with its Private Sector Preparedness Accreditation and Certification Program (PS-Prep) - a recommendation of the 9/11 Commission.

The state of Texas maintains its own relationships with private sector owners and operators of CI/KR. Advisory Councils, such as the Texas Critical Infrastructure Protection Council (CIPC) exist to aid the state in implementing the Texas Homeland Security Strategic Plan. The CIPC is composed of private and public sector representatives from all CI/KR sectors.

In order to maintain updated records on CI/KR, Texas now employs a federal tool called ViSAT. ViSAT allows owners and operators of critical infrastructures and key resources across the state in all sectors to perform a multi-dimensional analysis of threats, vulnerabilities and consequences feeding the data into a secure database at the Texas Fusion Center. The Center maintains a database that includes all pertinent CI/KR information. According to the SHSSP, "maintaining

---

CI/KR information in one location is essential for identifying interdependencies among locations and sectors, prioritizing vulnerabilities across all sectors, and appropriately reducing vulnerabilities."

House Bills 1831 and 4409 (81R) require for all government entities to formally consider the feasibility of implementing combined heat and power (CHP) technology prior to new construction or major renovation of critical building and facilities. Combined heat and power (CHP) is a type of distributed generation. With CHP, small generators are located at a building or facility where they are operated 24 hours a day to provide the primary source of both electricity and thermal energy. Typically, they use secure natural gas supplied by underground pipelines, so they provide secure, reliable power during an emergency when grid power is down.

To meet the requirements of the law, CHP systems must be able to provide all of the electricity needed for the facility's critical emergency operations for at least 14 days. A number of CHP projects have been implemented in critical buildings and facilities, including the Dell Children's Hospital in Austin and Methodist Hospital in Houston.

### **Schools**

In 2004 the Senate Committee on Infrastructure Development and Security recommended that the Legislature, "pass legislation to require all public schools in Texas perform at least one emergency preparedness drill every fall and Spring semester. Public schools shall maintain records of completion of emergency preparedness drills in the same fashion as records for the fire drills."<sup>170</sup>

In 2005, Senate Bill 11 required school districts to adopt and implement a multi-hazard emergency operations plan with provisions for training, drills, interagency coordination, and security audits. The bill adds to the Texas School Safety Center's list of duties the task of assisting school districts in developing such plans and developing security criteria for instructional facilities. The bill requires a school district to consider center security criteria for instructional facilities when building a new facility or conducting major renovation of existing facilities.

In 2009, HB 1831 required each public junior college district, general academic teaching institution, medical and dental unit, and agency of higher education, in addition to each school district, to adopt and implement a multi-hazard emergency operations plan.

### **Agriculture**

Texas agriculture is indispensable to the state and national economies, providing a major portion of the nation's food supply. Texas agricultural products exceed \$21 billion in market value, ranking second in the nation. The market value of Texas livestock exceeds \$14 billion, which ranks first in the nation.

The Senate Committee on Transportation And Homeland Security report to the 81st Legislature noted that, "During Hurricane Ike, the State incurred agricultural losses of \$433 million as of late

---

October 2008... resulting in a loss 5,000-8,000 head of cattle...Hurricane Ike totaled \$11 million in direct losses of rice crop and about 1.5 million acres of devastated pastureland."

The report also noted that "the State currently does not have an organization that is established to respond to agricultural needs in times of disaster, and industry partners are forced to fill this gap." HB 1831 (2009) created an "Agriculture Emergency Response Plan" as an annex to the state emergency plan. The plan is the responsibility of the Department of Agriculture and the Texas Animal Health Commission in coordination with TDEM.

## **Recommendations**

The committee recommends that the Legislature encourage CI/KR funding options, such as the Houston Ship Channel Security District be opened up to allow industrial clusters statewide to better fund and better leverage funding for security hardening.

The committee recommends that the Legislature consider a more integrated state command and control structure for cyber infrastructure.

The committee recommends that the Legislature help foster greater synergy between initiatives that seek to prevent weather and criminal related threats.

The committee recommends that the Legislature memorialize congress to allow the state to seek a memorandum of understanding with FEMA that will allow Texas to pursue its own solutions to CI/KR recovery projects (such as housing projects) without jeopardizing federal funding.

The committee concurs with the Senate Transportation of Homeland Security interim report of 2008 that, "The Legislature should require backup or alternative power supplies or energy sources capable of operating effectively for at least 90 days post disaster on infrastructure such as: 1) Critical Care facilities: Hospitals, Assisted Living Homes, Dialysis Centers 2) Schools and Universities 3) Water Treatment and Distribution Facilities 4) Gas Stations with more than three pumps."<sup>171</sup>

The committee recommends that the Legislature consider the need for consolidating post disaster housing related issues under a single agency.

The committee recommends that the Legislature consider requiring universities to conduct at least one campus wide emergency preparedness drill per biennium.

The committee recommends that the Legislature continue to foster public-private partnerships in accordance with the Texas Homeland Security Strategic Plan 2010-15.

## CONTINUITY OF GOVERNMENT

Government - big or small - is a vital function of any community - especially during a disaster. Continuity of government is important during and after a disaster because civic life continues - cases still need to be heard in courts, local governments still need to convene and criminals still need to be apprehended. In addition governments take on extraordinary responsibilities, such as coordinating response efforts and recovery programs.

A lack of continuity can lead to confusion and disorder. Chief Justice Wallace Jefferson told the committee that a dysfunctional judiciary in the aftermath of a disaster represents a serious threat to the rule of law. During Hurricane Katrina, boxes of judicial records floated down the swollen Mississippi river and looting became a significant law enforcement issue.<sup>172</sup>

### Continuity of Operations Plans

The Constitution requires agencies and local governments to implement Continuity of Operations (COOP) Plans, which include lines of succession for government officials, identification of alternate operation locations, preservation of vital records and the protection of government personnel, materials, equipment and facilities. TDEM promulgates standards for COOP plans, which are meant to apply to all types of major disasters.

During emergencies, key entities must maintain minimum essential functions despite disrupted power, damaged or destroyed primary facilities, missing key personnel, and other critical limitations. The State Homeland Security Strategic Plan states that:

"The state will ensure that processes are in place to ensure ... (COOP plans) are regularly updated and validated. Similarly, the state will work with regional and local partners to assess COOP needs at the regional and local level...The state will also require local jurisdictions to acquire, maintain and periodically test back-up sources of power, such as generators and fuel to run them, to be prepared for any future emergency loss of power."<sup>173</sup>

### Judicial Continuity

The issue of judicial continuity in Texas was underlined during Hurricane Ike. Abrupt courthouse closures (due to flooding or power outages) and a lack of contingency planning threw litigants, attorneys, judges and staff into a state of confusion. The committee heard from Court staff in Galveston County regarding the confusion:

- The court struggled to process important financial transactions such as child support checks.

- 
- Faced with chronic staff shortages, the Galveston County court had to put all civil cases off until January 2010 and perform a sort of judicial triage prioritizing criminal cases.
  - The court was dramatically understaffed as workers had either been evacuated, were caring for stricken relatives, or dealing with damaged personal property.
  - Anecdotes abound related to lawyers without homes or offices being required to appear in other areas of the state for hearings or depositions in spite of their circumstances.<sup>174</sup>
  - The clerk's offices along with the courts had to take extraordinary steps to get bondsmen to set up a system for locating defendants on bond, many of whom had evacuated.
  - In some instances, suspected criminals had to be released from prison because storm damage had destroyed important trial evidence.

The problems associated with not being able to obtain accurate records and/or locate bonded defendants, some of whom have been accused of violent or sexual crimes should be self evident to lawmakers.

Furthermore, court disruption after a disaster may cause severe delays in case processing which could cause litigants to experience problems with limitation periods. While the Supreme Court has entered orders in past disasters relating to enlargement of time periods, these orders cannot affect or alter statutory provision such as limitation.

The committee was provided numerous ideas and concerns by judicial staff - provisions that if enacted would ensure a better degree of judicial continuity.

Concerns included:

- Ensuring that active court files were relocated and available when the all clear was sounded.
- Ensuring that defendants currently on a pre-trial release bond are processed.
- Ensuring that jurors are notified in a timely manner of the schedule for the respective courts they were summoned to serve once the courts become operational again.

Recommendations included:

- Digitizing all court records as soon as possible. The State Emergency Plan states that, "the identification and continued protection of vital records is essential to the continuity of government and the effective return to normal operations of an area affected by a disaster." Digitization is the logical option and would also enhance normative judicial proceedings.
- Allow funds made available for disaster mitigation to apply to court record digitization.

- 
- Require bail bondsmen to submit a plan for accounting for defendants on bond within 48 hours of the all clear from a disaster.
  - Amend statute to clearly state that court clerks and staff are critical personnel.
  - Allow counties to be reimbursed for expenses related to living expenses during reentry.
  - Amend statute to specifically delineate a courthouse as a critical government facility.

The committee heard from Judge Olen Underwood who suggested the Legislature amend statute to authorize a judge who has jurisdiction over a suit pending in one county to allow judicial proceedings in a different county, including trial on the merits.<sup>175</sup> Such an extension of power could be limited to a governor's disaster declaration, as with 2009's HB 1861 (see below.) However, judges may then encounter problems after a disaster declaration has expired.

### **Local, State and National Disaster Declarations**

The President, Governor and County Judge may declare a disaster within their jurisdiction. Both state and local declarations of disaster make available to the Governor, mayors and county judges certain emergency powers enumerated in statute. Most of these emergency powers ultimately give local responders more authority to deal with people and property issues during emergency situations. They also give elected officials the authority to suspend rules and regulations that may impede response or recovery activities.

The Federal government requires that a state issue a gubernatorial disaster declaration before it will provide federal recovery assistance. The State requires cities and counties to issue local disaster declarations with detailed information on the situation and to request state assistance before the state issues its own declaration.

A local disaster declaration issued by the chief elected official cannot be continued for more than seven days unless the governing body of the jurisdiction consents to the continuation. However, recovery efforts, which initially enjoy the exemptions and privileges afforded by a declaration, may be inhibited once those exemptions and privileges expire, even as recovery efforts continue.

For example, during a disaster transportation waivers are granted for over-sized or over-weight trucks involved in response. Contractors hired by federal, state and local governments often bring in very large and very heavy equipment to support disaster recovery. If these resources work in the disaster area for an extended period, the state disaster proclamation that allowed the state to waive fees for oversize or overweight response vehicles may have expired - placing them the position of having to pay sizeable normal fees to go home.<sup>176</sup>

The Legislature could make the declaration process more sophisticated. For example, a three layered approach - allowing the governor to declare an emergency (in the case of an impending disaster), a disaster, and a disaster recovery zone- might make more sense. (The President may in fact declare a pre-disaster emergency before declaring a disaster.) However, the committee heard

---

from state emergency personnel that the state has to be very careful about the language it uses during a disaster so as to be able to quickly activate federal assistance.

For example, the Governor declared Hurricane Alex a disaster before landfall - this enabled the state to initiate necessary preparedness efforts, such as pre-deploying resources and requesting federal assistance. Disaster declarations expire after 30 days unless renewed by the governor. Any change to the process should take into account the need to comply with the federal Stafford Act and the desire to not let the declaration process become too pixilated.

The committee heard from TDEM who believe that the gubernatorial declaration period of 30 days appears to be sufficient and the Governor's staff regularly extends declarations when certain activities need to be continued.<sup>177</sup>

TDEM also believes there is room to clean up the statutory provisions of the Governor's authority to suspend statutes and rules that would impede disaster response. (The Texas government code rather vaguely states that "all rules and regulations that may inhibit or prevent prompt response to this threat are suspended for the duration of the state of disaster."<sup>178</sup>)

Local jurisdictions could use this more or less *carte blanche* language as a reason to not comply with various rules and regulations that *they think* might impede disaster response - perhaps even for erroneous reasons. It may be more appropriate for the Governor to authorize state agencies, boards, and commissions to suspend rules and regulations that these organizations determine may inhibit timely response to disasters.

DPS also suggested that the local declaration period of 7 days might be extended to 10 days, as they have been advised that some local governments have had difficulty in getting their governing boards together in the aftermath of major emergencies.

## **Progress**

### **2007**

Senate Bill 61 authorized local governments to adopt a plan for the continuity of functions carried out during a declared disaster establishing an exception to quorum requirements so action can be taken if officials are to unable to be present as a result of the disaster.

Senate Bill 1499 allowed local governments to waive the two-hour emergency meeting notice requirement under the open meetings law in the case of a mass influx of residents due to a disaster somewhere else in the state. (Subject to providing one hour notice to members of the news media of an emergency meeting.)

Senate Bill 112 (80) authorized a peace officer during a disaster to disarm an individual lawfully carrying or possessing any firearm or ammunition if the officer believes it necessary for the protection of the officer or another individual. (The bill requires the officer to return the firearm or ammunition unless the officer arrests the individual.)



---

## 2009

Senate Bill 359 increased the punishment of certain crimes such as assault and burglary to the punishment prescribed for the next higher category of offense if it is shown at trial that the offense was committed in an area that was, at the time of the offense, subject to a disaster declaration or an emergency evacuation order.

House Bill 3637 will help in the long run with getting records digitized by creating a county and district court technology fund that is funded by a fee required to be paid by a defendant on conviction in a county court, statutory county court, or district court.

House Bill 1861 authorized the Supreme Court of Texas to modify or suspend procedures for the conduct of any court proceeding affected by a disaster during the pendency of a disaster declared by the governor.

### **Task Force to Ensure Judicial Readiness in Times of Emergency**

In 2007, the Supreme Court appointed the Task Force to Ensure Judicial Readiness in Times of Emergency. The task force developed an Interim plan in 2008 and as of April 2010, 141 counties have approved the plan which includes provisions for memorandums of understanding between local courts for holding trials of other counties at their facilities.<sup>179</sup>

The task force also considered ideas such as telecommuting for displaced staff, videoconferencing options for court proceedings, and giving the Supreme Court authority to conduct proceedings (including final hearings or trials) in an alternate county or an alternate location within the county in the event of a disaster.

During the 2009 session, the Legislature chose not to fund a full time employee in the office of court administration dedicated to emergency management. The committee heard from Chief Justice Wallace Jefferson who stressed the need for the Legislature to invest in the digitization of court and the need for the judiciary to have a full time employee that would oversee emergency operations during a disaster.<sup>180</sup>

## **Recommendations**

The Committee recommends that the Legislature better fund COOP infrastructure for the judiciary.

The Committee recommends that the Legislature as soon as possible implement policies that encourage or require the digitization of court records, with priority given to counties along the gulf coast.

The Committee recommends that the Legislature investigate ways to make declaration processes more sophisticated.

The Committee recommends that the Legislature consider requiring bail bondsmen to maintain

---

digital real time records of their clients.

The Committee recommends that the Legislature open up mitigation funds to District Clerks and digitization projects.

The Committee recommends that the Legislature statutorily state that clerks and essential judicial staff are critical personnel immediately following a disaster.

The Committee recommends that the Legislature add courthouses to the list of critical government facilities.

The Committee recommends that the Legislature address issues regarding the statute of limitations faced by litigants involved in court cases disrupted by disasters.

The Committee recommends that the Legislature allow trials to be conducted in alternative locations and counties if a disaster renders primary courthouses unusable.

The Committee recommends that the Legislature allow counties to charge fees for documents they have to digitize.

The Committee recommends that the Legislature allow counties to provide online services outside of their jurisdiction if those services are relevant to the residents of a disaster stricken county.

---

# CONCLUSION

This report has outlined the structures and practices of emergency management at the state and local level as well as highlighting some of the challenges and vulnerabilities Texas exhibits regarding major disasters. In many ways the committee found Texas' level of emergency preparedness to be exemplary, without much need for statutory tinkering. Texas' emergency preparedness community is one of the state's greatest assets and a national leader. This conclusion will briefly outline several areas where the Legislature can act to make sure that remains the case.

The problem of funding emergency preparedness in Texas is two-fold. First, Texas has no overall dedicated funding mechanism for emergency preparedness activities and is instead financed by existing state agency budgets and various fees (such as 911 services fees.) Second, inconsistent amounts of federal funding at the state and local level inhibit long term planning. Texas' excellent level of emergency preparedness happens in spite and not because of these dynamics.

## **Over Reliance on Federal Funds**

Federal priorities for funding emergency preparedness are too fickle to facilitate quality long term planning. For example as mentioned in Chapter 3, DSHS' preparedness activities rely on federal funds. These funds have been steadily declining since 2001 and across the board cuts are expected over the next few years.<sup>181</sup> When the funding dries up, cuts mean letting go of key personnel, who the state has invested considerable time and training in. A bumper crop of funding one year - while welcome - means the state has to start the hiring and training process again.

Furthermore, federal funds often come with strings attached meaning state and local agencies undertake the laborious process of proving they meet often very strict requirements.

For example, the committee heard from the South East Texas Regional Development Council regarding federal housing funds after Hurricanes Rita and Ike. Those funds were passed down to localities through TDHCA. Problems experienced include the time it takes for funds to trickle down and issues surrounding proof of ownership and evidence disproving duplication of benefits.

"Multiple situations arose where applicants would be disqualified from the program because they could not produce warranty deeds. The state was able to amend these restrictions and allowed other forms of ownership to serve as proof. Another problem...was the time that it takes to develop program guidelines and program forms ...Since the time of the hearing, TDHCA has developed a guidelines task force who are developing a standard set of guidelines for Hurricane Ike Round II funding. These guidelines are being developed now to expedite the process of spending funds once contracts are signed with TDHCA."<sup>182</sup>

Though both of these issues were solved, time, effort and energy were wasted on red tape while disaster victims were sleeping in their cars. In the tradition of a home rule state, Texas should not be so reliant on federal grants and programs in order to fund its emergency preparedness and

---

recovery activities. Dedicated general funding and expanded revenue raising options for localities would be better long term options.

Because federal funds usually cannot be used as a substitute for state funds, Texas may effectively be penalized with the loss of federal dollars if it chooses to better fund preparedness itself. However, such a shift would also lead to a broader degree of freedom to tailor preparedness to the state's unique needs. In any case - as Hurricane Katrina showed the nation - waiting for the federal government is not always wise.

### **Dedicated Funding Mechanisms**

Texas needs to consider again creating dedicated funding streams for emergency preparedness activities. The committee heard from the Texas Forest Service:

"The current approach in dealing with catastrophic events is for the agencies to respond to the immediate need and worry about the funding later. While this approach has generally been successful in dealing with the crisis at hand, addressing the bills at a later date (sometimes a much later date) can be and has been somewhat problematic. In recent years it has basically eliminated the ability to mobilize fire resources through the Southern Compact (state-to-state forestry agreement) since assisting state operate on a monthly billing cycle."<sup>183</sup>

Similarly, the committee heard from TxDOT regarding their budget which, "does not include a specific line item for emergency preparedness. In general, the department absorbs the cost of its emergency response-related activities within its existing appropriations." Some of the costs associated with emergency response (such as debris removal) are eligible under some circumstances for FEMA reimbursement. However, reimbursement is not guaranteed and it is not obtained without extensive investment of time, effort and energy by state agencies.

Along with the unpredictability of disaster frequency and intensity, state agencies are essentially left guessing what emergency response will cost them over a biennium. For example, TCEQ told the committee, "we have taken the amount budgeted across the agency on emergency preparedness in FY11 and assumed that costs will be approximately the same for FY12 and FY13." Such logic obviously leaves state agencies running the risk of appropriating either too much (impacting other agency responsibilities) or too little (which can leave agencies in need of supplemental appropriations - see below.)

The Texas Department of Insurance (TDI) shared their experience which illustrates the above issue. TDI told the committee:

"The agency uses existing staff and resources for response activities. In the past, TDI has shifted agency funds and eliminated vacant positions in order to pay for disaster related costs such as travel to disaster recovery centers and personnel costs associated with overtime and compensatory time. However, coastal development and hurricane activity have increased in recent years, and TDI expended approximately \$1.25 million in 2009 responding to Hurricane Ike. Due to TDI's unexpended balance authority, TDI will be able to redirect unspent FY 2010 funds to support disaster response activities should the need arise in FY 2011. However, given current budgetary constraints for FY 2012, TDI may not have sufficient funds to absorb disaster related costs, and may have to limit its field assistance and extended phone bank hours if agency funding is further reduced."<sup>184</sup>

---

TDI commissioners are attempting to counter this potential squeeze on funding by requesting a disaster contingency rider that will allow the agency to access funds in the event of a Governor declared disaster. TxDOT enjoys such a rider enabling them to increase appropriations spent during a governor declared disaster subject to the submission of a report to the Legislative Budget Board. This is not a privilege enjoyed by all state agencies who expend significant funds on disaster response activities. A more standardized system of catering for disaster response within state agency budgets would put agencies on a level playing field.<sup>185</sup>

Such a system would need a revenue source. The state's Disaster Contingency Fund could be used. However it consistently has no available balance and there are no existing funding mechanisms that would appropriate funds to the account in the future.

The 2008 House Select Committee on Hurricane Ike Devastation to the Texas Gulf Coast noted that:

"Although the Legislature successfully created the helpful DCF they failed to fund it, thus making it useless for the emergency response to Hurricane Ike. Had the DCF been funded it could have been used for

- Revolving lines of credit, providing governmental entities assistance for immediate disaster expenses, providing the State the opportunity to seek reimbursement from FEMA.
- Low-interest, long-term loans to government entities to recover from disasters.
- The purchase of generators by government entities.
- A contract between the Texas Department of Housing and Community Affairs (TDHCA) and mobile homes/modular companies to address housing needs without having to wait for FEMA."<sup>186</sup>

A well funded DCF has been the recommendation of several legislative committees and the Governor in the past.<sup>187</sup> It has in fact existed since 1987, however it has never been steadily funded in expectation of future disasters. Statute currently states that, "It is the intent of the Legislature that in responding to an emergency or disaster, the first recourse of state and local agencies should be to the funds regularly appropriated to those agencies."<sup>188</sup> Lawmakers should reconsider this 23 year old statutory assumption.

The virtually empty fund is now under the direction of TDEM, its former board being abolished by HB 1831 in 2009. Numerous other changes have been made to the DCF over the years outlining what funds can be spent on and detailing provisions for reimbursements should federal funds become available. Therefore, the statutory infrastructure is in place for the state to begin properly funding disaster recovery through the DCF.

Currently the state's "de facto" disaster relief fund is General Revenue. After Hurricane Ike, money was juggled around agency budgets to meet increased costs associated with disaster expenses. The fiscal impact of Hurricane Ike to state agencies was an estimated \$2 billion. Many of the fiscal holes created by the juggling process were plugged with the HB 4585 (2009) supplemental appropriations bill. Though HB 4586 had a price tag of \$3.3 billion, the fiscal impact was dramatically less due to another round of budgetary juggling which utilized federal money from the 2009 American Recovery and Reinvestment Act.

The committee heard from one state agency, which outlines the problem with the above system:

"Depending on when the catastrophic event occurs, the associated bills can go unpaid or the responding

---

agency can be faced with a significant financial burden. And, the longer the period of time between the event and the Legislative Session, the more difficult it becomes to secure funding for the bills."<sup>189</sup>

The committee found support among many state agencies and organizations for a well funded DCF.<sup>190</sup> A well funded DCF could be coupled with the establishment of more budget riders enabling state agencies then to increase appropriations for response related spending during a disaster. These expenses could be paid for directly out of the DCF rather than agency budgets.

The DCF could be funded by using part of the Rainy Day Fund (RDF) as a dedicated funding source. (After all, many of Texas' biggest disasters are rainy days.) Federal reimbursements for disaster costs could then be paid back to the RDF. In this way, part of the RDF could be used as a loan mechanism to float funds to agencies and localities while awaiting federal reimbursement. A similar idea was discussed in 2008. According to the Houston Chronicle,

"(In 2008) The Governor suggested the Rainy Day Fund could be capped at a certain level with additional oil and gas tax revenue dedicated to disaster relief. When the federal government repays the money fronted by the state, those funds also would be deposited into the disaster fund, which would become a type of revolving account."<sup>191</sup>

Rather than opening the floodgates for potential uses of the RDF, such system would protect the fund from ad hoc raids through delineating it a specific, bipartisan and higher purpose. However the Legislature resolves to act, the House should explore any and all opportunities to better and more steadily fund emergency preparedness activities. As was noted at one of the committee's hearings,

"After the 1900 Storm, Galveston undertook a bold plan to build a seawall to protect the city. The seawall worked and it is working today. While the surge (from Hurricane Ike) worked its way around the seawall to the city center, there is no doubt that much of Galveston would be in the bay if the wall were not between the city and the sea."<sup>192</sup>

A well funded DCF can be Texas' "bold plan" for the 21st century - a financial seawall that prevents preparedness budgets from being flooded after a disaster.

### **Local Funding Options**

In addition the Legislature should consider authorizing localities to raise revenue for emergency preparedness activities. Certain local funding mechanisms are already in place. For example, Cameron County's new reverse 911 system is funded by 911 services fees imposed upon telephone bills. (See Chapter 7.) More local funding options would enhance local emergency preparedness, which would save the state money in the long run and encourage responsible development in hazard prone areas.

### **Offsetting Costs**

Finally, the Legislature should consider simply investing more money in statewide emergency preparedness capacities. This may be more financially feasible than it may at first appear. First, as the report has shown, substantial investment in mitigation and preparedness is cheaper in the

---

long run than repeated responses.

Second, by increasing response capacities, Texas would also increase the number of deployable assets it could lend to other states during other disasters. Reimbursements from out-of-state deployments could help significantly offset the costs associated with increased response capacity.

Third, by maintaining the best equipped and trained response capacities, Texas agencies could derive revenue from training out of state entities. The Texas Engineering and Extension Service trains first responders and local governments across the state and nation in emergency management. It receives only an eighth of its funding from the Legislature (base funding) the rest of it being derived from fees charged to those go through its training programs.<sup>193</sup>

Similarly, TexMAT-1 personnel are currently working with the state of North Carolina to develop their medical response capacities. Texas is one of the nation's most diverse states and has one of the highest urban populations in the nation. Texas is already a national asset and proving ground for emergency preparedness. Texas should have training and deployment capacities that reflect this.

### **The Future of Preparedness and the Texas House**

The threat posed to the state by major emergencies is an evolving one. Climate change, global politics and demographic growth all contribute to this. Furthermore, technological advancements are creating new solutions to old problems.

For example, the committee heard from the El Paso Solar Association who outlined numerous ways in which photovoltaic technology could enhance emergency preparedness. Other states (with far less sunshine) have already taken the lead in this area. For example, New York City has invested in portable solar generators and solar water purification systems. In Boston, solar technology provides off-grid functionality to critical evacuation infrastructure (such as solar powered traffic lights) along one city evacuation route.

"El Paso's high level of solar irradiance positions it as a test-bed for best practices that have been proposed in other cities across the U.S. El Paso's proximity to the border and the myriad of security challenges that the region deals with on an everyday basis can be met, in part, by examining the role of solar applications for meeting the needs of the El Paso community during times of crises, both man-made and natural."<sup>194</sup>

The gulf oil spill showed that emergency preparedness solutions in use can often lag behind what might be possible if funding was available for new technological developments.<sup>195</sup> The Legislature should consider using the Emerging Technology Fund to encourage emergency preparedness applications for technologies like solar power.

The evolving nature of emergency preparedness means that the Texas House would be well served by a permanent Emergency Preparedness Committee. Part of this committee's charge was to review previous reports to determine whether progress has been made. That review has been built into the previous chapters. One thing to note is that numerous house committee reports and

---

charges are cited while references to Senate reports are overwhelmingly derived from a single source - the long standing Senate Committee on Transportation and Homeland Security. The ability of the Senate to concentrate legislation and interim reporting in one committee appears to be advantageous.

First, it narrows the options for preparedness bills during a legislative session. Emergency Preparedness bills in the Texas House can go to any number of committees creating a "legislative diaspora" making them difficult to track. A permanent emergency preparedness committee would simplify the process for emergency preparedness related bills. Second, a permanent emergency preparedness committee would simplify relationships between stakeholders and the Texas House. Agencies and organizations with a stake in emergency preparedness presently have to maintain a plethora of relationships with House chairs and committee staff.

Therefore, the final recommendation of the House Select Committee on Emergency Preparedness is that the Texas House structure itself in such a way as to accommodate a permanent House Committee on Emergency Preparedness.



---

## **APPENDICES**

- A. List of Acronyms
- B. Glossary of Terms
- C. Previous Legislative reports
- D. House Select Committee on Emergency Preparedness hearing witness lists

---

## **APPENDIX A**

### **List of Acronyms**

AAR After Action Report	EAS Emergency Alert System
ACP Area Contingency Plan	EMAC Emergency Management Assistance Compact
AGD Adjutant General's Department	EMC Emergency Management Coordinator
ARC American Red Cross	EMT Emergency Medical Technician
ARCC Alamo Regional Command Center	EOC Emergency Operations Center
BCFS Baptist Child & Family Services	EPA Environmental Protection Agency
BPC Texas Building & Procurement Commission	ERCOT Electric Reliability Council of Texas
CAP Civil Air Patrol	ERT-A Advance Element of the FEMA Emergency Response Team
CCP Crisis Counseling Program	ERT FEMA Emergency Response Team
CDC Centers for Disease Control and Prevention	ESC Emergency Support Center
CERT Community Emergency Response Team	ESF Emergency Support Function
CIKR Critical Infrastructure/Key Resources	EWP Emergency Watershed Protection
CIPC Critical Infrastructure Protection Council	FBI Federal Bureau of Investigation
CIS Criminal Intelligence Service	FCO Federal Coordinating Officer
CISM Critical Incident Stress Management	FDA Food and Drug Administration
COG Councils of Government	FLA Federal Lead Agency
COOP Continuity of Operations	FEMA Federal Emergency Management Agency
CSA County Staging Area	FMA Flood Mitigation Assistance
DADS Department of Aging and Disability Services	FMP Flood Mitigation Plan
DARS Department of Assistive and Rehabilitative Services	FNARS FEMA National Radio System
DBH Disaster Behavioral Health	FOIA Freedom of Information Act
DDC Disaster District Committee	FODCO Field Operations Division Central Office
DFO Disaster Field Office	FSA Farm Service Agency
DFPS Department of Family and Protective Services	GACC Geographic Area Coordination Center
DHS Department of Homeland Security	GAR Governor's Authorized Representative
DHHS United States Department of Health and Human Services	GCO Grant Coordinating Officer
DIR Department of Information Resources	GLO General Land Office
DMAT Disaster Medical Assistance Team	HAN Health Alert Network
DMORT Disaster Mortuary Operational Response Team	Hazmat Hazardous Material
DOD Department of Defense	HF High Frequency
DOE Department of Energy	HHSC Health and Human Services Commission
DOJ U.S. Department of Justice	HMGP Hazard Mitigation Grant Program
DPS Department of Public Safety	HSIN-CI Homeland Security Information Network – Critical Infrastructure
DRC Disaster Recovery Center	HSR Health Service Region
DSHS Department of State Health Services	IC Incident Commander
DSNS Division of Strategic National Stockpile (CDC)	ICP Incident Command Post
DSO Disaster Summary Outline	ICS Incident Command System
DSR Disaster Summary Report	IMAT Incident Management Assistance Teams
DUA Disaster Unemployment Assistance	IMS Incident Management System
	IMT Incident Management Team
	JFO Joint Field Office
	JIC Joint Information Center

---

JIS Joint Information System  
 JOC Joint Operations Center  
 JOIC Joint Operations Intelligence Center  
 LEPC Local Emergency Planning Committee  
 LHA Local Health Authority  
 LHD Local Health Department  
 LLO Legislative Liaison Officer  
 LMHA Local Mental Health Authority  
 LSA Logistics Staging Area  
 MACC Multi-Agency Coordination Center  
 MHMR Department of Mental Health and  
 Mental Retardation  
 MSN Medical Special Needs  
 MOA Memorandum of Agreement  
 MOU Memorandum of Understanding  
 NAWAS National Warning System  
 NAWS National Warning System  
 NCP National Contingency Plan  
 NCS National Communications System  
 NCEMPR National Center for Emergency  
 Medical Preparedness & Response  
 NDMS National Disaster Medical System  
 NERC North American Electric Reliability  
 Council  
 NERRTC National Emergency Response and  
 Rescue Training Center  
 NEWAS National Warning System  
 NFIP National Flood Insurance Program  
 NHC National Hurricane Center  
 NICC National Infrastructure Coordination  
 Center  
 NIMS National Incident Management System  
 NIPP National Infrastructure Protection Plan  
 NOAA National Oceanic and Atmospheric  
 Administration  
 NOC National Operations Center  
 NOI Notice of Interest  
 NWS National Weather Service  
 NWCG National Wildfire Coordinating Group  
 OAG Office of the Attorney General  
 OHS Office of Homeland Security  
 ORCA Office of Rural Community Affairs  
 OSPRA Oil Spill Prevention and Response Act  
 PEP Primary Entry Point  
 PIO Public Information Officer  
 PFO Principal Federal Official  
 POD Point of Distribution  
 PUC Public Utility Commission  
 PWRT Public Works Response Team  
 RAC Regional Advisory Council (Trauma  
 Service Area)

RAU Rapid Assessment Unit  
 RFA Request for Assistance  
 RFC Regional Fire Coordinator  
 RIMT Regional Incident Management Team  
 RLO Regional Liaison Officer  
 RMACC Regional Multi-Agency Coordination  
 Centers  
 RMOC Regional Medical operations Center  
 ROC FEMA Regional Operations Center  
 RRC Railroad Commission of Texas  
 RRP FEMA Regional Response Plan  
 RRT Regional Response Team  
 RRTF Rapid Response Task Force  
 RSA Resource Staging Area  
 RSP Regular Services Program  
 RSS Receiving, Staging, and Storing (of the  
 SNS)  
 RUC Regional Unified Command  
 RUCS Regional Unified Command Structure  
 SAO State Auditor's Office  
 SAR Search and Rescue  
 SBA Small Business Administration  
 SCFRT State Catastrophic Fire Response Team  
 SCO State Coordinating Officer  
 SEMC State Emergency Management Council  
 SERC State Emergency Response Commission  
 SERT State Emergency Response Team  
 SES Safety Education Service  
 SFHA Special Flood Hazard Area  
 SHMO State Hazard Mitigation Officer  
 SHMT State Hazard Mitigation Team  
 SITREP Situation Report  
 SLOSH Sea, Lake and Overland Surge from  
 Hurricanes  
 SMHA State Mental Health Authority  
 SNS Strategic National Stockpile  
 SOC State Operations Center  
 SOS Secretary of State  
 SSPEED Severe Storm Prediction, Education,  
 and Evacuation from Disasters.  
 TAHC Texas Animal Health Commission  
 TAPB Texas Aircraft Pooling Board  
 TARC Texas Association of Counties  
 TBPC Texas Building and Procurement  
 Commission  
 TCEQ Texas Commission on Environmental  
 Quality  
 TCFP Texas Commission on Fire Protection  
 TDA Texas Department of Agriculture  
 TDADS Texas Department of Aging &  
 Disability Services

---

TDCJ Texas Department of Criminal Justice  
TDEM Texas Division of Emergency Management  
TDH Department of Health  
TDHCA Texas Department of Housing and Community Affairs  
TDI Department of Insurance  
TDSHS Texas Department of State Health Services  
TEA Texas Education Agency  
TEEx Texas Engineering Extension Service  
TExFIRS Texas Fire Incident Reporting System  
TEPP Transportation Emergency Preparedness Program  
TERC Texas Energy Reliability Council  
TERT Texas Emergency Response Team (TAHC)  
TEWAS Texas Warning System  
TFS Texas Forest Service  
TFSC Texas Funeral Service Commission  
THCA Texas Health Care Association  
THP Texas Highway Patrol  
TICC Texas Interagency Coordination Center  
TIMS Texas Inventory Management System  
TIPCC Texas Infrastructure Protection Communications Center  
TJAGCT Texas Joint Air-Ground Coordination Team  
TLC Texas Lottery Commission  
TLETS Texas Law Enforcement Telecommunication System  
TMF Texas Military Forces  
TPASS Texas Procurement & Support Services  
TPWD Texas Parks and Wildlife Department  
TRCIP Texas Radio Communications Interoperability Plan  
TRRN Texas Regional Response Network  
TRC Texas Rehabilitation Commission  
TSA The Salvation Army  
TSAAC Texas Security Alert & Analysis Center  
TSBME Texas State Board of Medical Examiners  
TSLAC Texas State Library and Archives Commission  
TSMPS Texas Strategic Military Planning Commission  
TWC Texas Workforce Commission  
TWC Texas Water Code  
TWDB Texas Water Development Board  
TxDOT Texas Department of Transportation  
TxDPSS Texas Department of Public Safety  
TxFC Texas Fusion Center  
TxOHS Texas Office of Homeland Security  
TxMAS Texas Multiple Awards Schedules  
TxMF Texas Military Forces  
TxSART Texas State Animal Resource Team  
TxVOAD Texas Voluntary Organizations Active in Disaster  
TYC Texas Youth Commission  
UC Unified Command  
UCGS Unified Coordination Group and Staff  
U.S.C. United States Code  
USDA U.S. Department of Agriculture  
USACE United States Army Corps of Engineers  
USCG United States Coast Guard  
USDHS U.S. Department of Homeland Security  
USEPA U.S. Environmental Protection Agency  
USGS United States Geological Survey  
VFD Volunteer Fire Department  
VHF Very High Frequency  
VMAT Veterinary Medical Assistance Team  
VOAD Voluntary Organizations Active in Disaster  
VoIP Voice over Internet Protocol  
VOLAG Volunteer Agency  
WHO World Health Organization  
WMD Weapons of Mass Destruction

---

## APPENDIX B

### Glossary of Terms

Agency: A division of government with a definitive function offering a specific kind of assistance. In the Incident Command System (ICS), agencies are defined either as jurisdictional, having statutory responsibility for incident management, or as assisting or cooperating, providing resources or other assistance.

Agency Representative: A person assigned by a primary, assisting, or cooperating Federal, State, local, or tribal government agency or private entity that has been delegated authority to make decisions affecting that agency or organization in incident management activities following appropriate consultation with the leadership of that agency.

Assisting Agency: An agency or organization providing personnel, services, or other resources to the agency with direct responsibility for incident management.

Area Command: Established as necessary to provide command authority, coordination, strategy, and priorities of multiple incidents that are being handled by a separate ICS organization or to oversee the management of a very large incident that involves multiple ICS organizations. Area command works directly with incident commanders. Area command becomes unified area command when incidents are multi-jurisdictional. Area command may be collected as a separate activity at an EOC facility or at some other location other than an incident command post.

Catastrophic Hurricane: A hurricane defined by the Saffir-Simpson Hurricane Wind Scale as producing catastrophic damage equal to a Category 4 or 5 storm.

Catastrophic Incident: Any natural or manmade incident, including terrorism, which results in

occurrence that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.

Comfort Station: A designated rest area on a hurricane emergency evacuation route that offers water and ice to evacuees. Some may offer additional portable rest room facilities and additional services, depending upon volunteer capabilities. No fuel services are offered at comfort stations.

Cooperating Agency: An agency supplying assistance other than direct operational or support functions or resources to the incident management effort.

Defense Support to Civil Authorities (DSCA): Military support, within the unit's capability, to civil authorities for a limited period of time in civil disasters or emergencies. May be conducted under imminently serious conditions during an undeclared disaster or emergency, for situations that require the immediate support of the military to save lives, prevent human suffering, or mitigate property loss.

Disaster: An occurrence or imminent threat of widespread or severe damage, injury, loss of life or property that is beyond the capability of the governments within the affected area(s) to resolve with their resources.

Disaster Declaration: Official declaration of a state of disaster for certain jurisdictions that activates various recovery and rehabilitation aspects of plans and authorizes deployment and use of resources.

---

Disaster Medical Assistance Team: A team of volunteer medical professionals and support personnel equipped with deployable equipment and supplies that can move quickly to a disaster area and provide medical care.

Disaster Mortuary Services Team: A team of mortuary service and medical personnel that provide mortuary and victim identification services following major or catastrophic disasters.

Emergency: Absent a Presidential declaration, any incident(s), natural or man-made, that requires responsive action to protect life or property. Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, an emergency is defined as occasion or instance for which, in the determination of the President, federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.

Emergency Evacuation Traffic Management Plans: Plans issued by the Texas Department of Public Safety that designate specific evacuation routes, describe law enforcement assignments and incorporate Texas Department of Transportation contraflow procedures and controls to ensure the efficient movement of traffic during hurricane evacuations.

Emergency Public Information: Information that is disseminated primarily in anticipation of an emergency or during an emergency. In addition to providing situational information to the public, it also frequently provides directive actions required to be taken by the general public.

Evacuation: Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Evacuation Area: Geographic coastal areas identified by officials as at risk from coastal winds and storm surge associated with hurricanes. In some areas, these are called “Risk Areas”; in others “Evacuation Zones”.

Evacuation Zone: Hurricane evacuation area defined by either geographic or governmental features (e.g., roads, railroads, rivers, city/county jurisdictional lines) or ZIP code.

Event: A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts, or sporting events.

Federal Active Duty (FAD): TxMF activated under Presidential Federal authority in support of national contingency operations.

Federal On-Scene Coordinator (FOSC or OSC): The Federal official pre-designated by the Environmental Protection Agency (EPA) or the United States Coast Guard (USCG) to coordinate responses under subpart D of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), or the government official designated to coordinate and direct removal actions under subpart E of the NCP.

Fuel Coordination Team: A group of private sector partners from the fuel industry that ensures the availability and distribution of fuel during emergency events.

Function: Function refers to the five major activities in ICS: Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function. A sixth function, Intelligence, may be established, if required, to meet incident management needs.

H- Hour or Day: “H-“ (H minus) designates the amount of time remaining before the predicted arrival of tropical storm force winds (sustained winds of 34 kts/39 MPH) somewhere on the Texas coast. It is used as a benchmark for the timing of pre-landfall response activities.

---

**Hazardous Substance:** Those substances which because of quantity, concentration, physical or chemical characteristics may pose a threat to human health or the environment when improperly treated, stored, transported, or disposed of. Hazardous substances include those defined as hazardous under federal, state, and municipal laws. A more detailed definition may be found in the NCP pursuant to section 311(b)(2)(A) of the Clean Water Act.

**HAZUS-MH:** A computer program that calculates potential damage estimates for hurricane wind, coastal flooding, river flooding and earthquakes.

**Homeland Defense (HD):** Homeland Defense is the protection of U.S. sovereignty, territory, domestic population, and critical infrastructure against external threats and aggression, or other threats as directed by the President.

**Homeland Security (HLS):** Homeland Security, as defined in the national Strategy for Homeland Security, is a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.

**Host Counties:** Designated inland counties offering coordinated mass care and shelter support to evacuating coastal communities.

**Household Pet:** A domesticated animal, such as a dog, cat, bird, rabbit, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes, can travel in commercial carriers, and be housed in temporary facilities. Household pets do not include reptiles (except turtles), amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes.

**Household Pet Shelter:** Any private or public facility that provides shelter to rescued household pets and/or the household pets of evacuees in response to a declared disaster or emergency.

**HURREVAC:** A computer program that displays the projected hurricane track and provides wind and evacuation timing information for decision-makers.

**Hurricane Warning:** An announcement issued by the National Hurricane Center (NHC) for specific areas of the coast when hurricane force winds (sustained winds of 64 KTS/74 MPH or higher) are anticipated within 24 hours.

**Hurricane Watch:** An announcement issued by the NHC for specific areas of the coast when hurricane force winds are anticipated within 36 hours.

**Immediate Care Strike Team:** A group of responders who manage a distribution site for life-sustaining resources (food, ice, water) in areas where these items are not available immediately after a storm.

**Incident:** An occurrence or event, natural or human-caused that requires an emergency response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, tornadoes, tropical storms, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

**Incident Action Plan (IAP):** An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.

**Incident Commander:** Person in charge of an incident that is assigned by the responsible agency.

---

**Incident Command System (ICS):** A standardized on-scene emergency management system specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. ICS is used for all emergency responses and is applicable to small, as well as, large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, or organized field-level incident management.

**Industrial Fire of State Significance:** Catastrophic fire(s) or other fire-related incident(s) that is/are beyond the resource capabilities of local organizations or involves broad-based terrorism or considerable public and/or political pressure.

**Industrial Fire of State Significance (IFSS) Support Group:** A group of individuals with technical expertise selected by the Texas Catastrophic Fire Steering Committee (TCFSC) who serve in an advisory capacity to an IFSS.

**Incident Management Team (IMT):** The Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

**Incident of National Significance:** An actual or potential high-impact event that requires a coordinated and effective response by and appropriate combination of federal, state, local, tribal, nongovernmental, and/or private sector entities in order to save lives and minimize damage, and provide the basis for long-term communication, recovery, and mitigation activities.

**Joint Field Office (JFO):** A temporary Federal facility established locally to provide a central point for Federal, State, local, and tribal executives with responsibility for incident oversight, direction, and/or assistance to effectively coordinate protection, prevention, preparedness, response, and recovery actions.

**Joint Information Center (JIC):** A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media at the scene of the incident. Public information officials from all participating agencies should collocate at the JIC.

**Joint Information System (JIS):** Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the IC; advising the IC concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.

**Major Disaster:** As defined under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122) as amended, means any natural catastrophe (including any hurricane, tornado, storm, high water, wind driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Chapter to supplement the efforts and available resources of States, tribes, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.



---

Mass Care: Meeting basic human needs for people who have been impacted by the occurrence of a disaster or emergency event. It includes the capability to provide immediate shelter, feeding operations, emergency basic first-aid. It can also include resources including crisis counseling, emotional and spiritual care and/or distribution of disaster related supplies donations and other essential life supporting requirements necessary to meet the immediate needs of disaster survivors and emergency response workers.

Medical Special Needs Population: Individuals who need assistance during evacuation and sheltering due to physical or mental disabilities or who are minors under the age of 18, and/or who require a level of care and resources that is beyond the basic first aid level of care available in general population shelters.

Multi-Agency Coordination Center: A coordination and control element responsible for preparing for and responding to catastrophic events on a regional basis. The MACC is established by the County Judge(s) and Mayors from a multi-jurisdictional area who also appoint a Coordinator to manage MACC operations. Some State agencies and other organizations also have MACCs. In this document, the term MACC refers to the center established by the County Judges and Mayors, unless there is an agency/organization name associated.

Multi-Agency Coordination Group: A group of representatives of involved agencies in a geographic area who come together to make key decisions regarding the prioritizing of incidents and to share the use of critical resources. It is not involved with incident strategies or tactics.

National Disaster Medical System: A coordinated partnership between Department of Homeland Security (DHS), Department of Health and Human Services Commission, Department of Defense, and the Department of Veterans Affairs for the purpose of responding to the needs of victims of a public health emergency. Non-federal participants include major pharmaceutical companies and hospital suppliers, the national Foundation for Mortuary Care, and certain international disaster response and health organizations.

National Incident Management System: A system mandated by HSPD-5 that provides a consistent nationwide approach for Federal, State, local, and tribal governments; the private-sector, and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

National Response Center: A national communications center for activities related to oil and hazardous substance response actions. This center receives and relays notices of oil and hazardous substance releases to the appropriate Federal OSC.

National Response Team (NRT): The NRT, comprised of 16 Federal agencies with major environmental and public health responsibilities, is the primary vehicle for coordinating Federal agency activities under the NCP. The NRT carries out national planning and response coordination and is the head of a highly organized Federal oil and hazardous substance emergency response network. EPA serves as the NRT Chair, and DHS/USCG serves as Vice Chair.

National Strike Force: The National Strike Force consists of three strike teams established by DHS/USCG on the Pacific, Atlantic, and Gulf coasts. The strike teams can provide advice and technical assistance for oil and hazardous substances removal, communications support, special equipment, and services.

---

**Non-governmental Organization:** An entity with an association that is based on interests of its members, individuals, or institutions and that is not created by a government, but may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. Examples of NGOs include faith-based charity organizations and the American Red Cross.

**Overhead Team:** Incident Management Team command and control organization.

**Prevention:** Actions to interdict, disrupt, preempt, avert, or minimize the impact of a threat.

**Point-to-Point Shelters:** A component of the Shelter Hub system consists of pre-designated sites, identified by local jurisdictions, and coordinated and documented by agreements between evacuating coastal areas and receiving inland jurisdictions to ensure unpublicized shelter accommodations for evacuees involved in mass transportation operations.

**Public Information Officer:** A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements.

**Public Works Assessment Team:** A team of technical experts in one or more Public Works disciplines that will deploy to a disaster stricken area to assist local jurisdictions with critical infrastructure assessment and essential functions of government.

**Public Works Resource Team:** A team of specialized personnel, tools, and equipment required to build specific response capability in one of several Public Works disciplines such as certified water/wastewater personnel, inspectors, or road maintenance crews.

**Public Works Response Team:** A team of public works personnel with the resources and expertise to support assessment and damage repair in the planning for, and recovery from, a catastrophic event. This includes liaison and planning support in the State Operations Center and on-scene assessment and operational support.

**R+ Hour or Day:** “R+” (R plus) designates the amount of time that has elapsed following the subsidence of hazards caused by a hurricane or other catastrophic incident.

**Re-entry:** A phased process of allowing appropriate agencies and vendors access to damaged areas affected by hurricane-related hazards. Re-entry marks the transition from the response phase into the recovery phase of the disaster. It includes efforts to restore continuity of government and critical infrastructure/key resources to support the community.

**Reception Center:** Pre-designated facility within a shelter hub to process evacuees entering a city or county. Evacuees will be registered, triaged, and directed to an appropriate shelter.

**Recovery:** Actions to help individuals and communities impacted by a hazard to return to normal. Recovery programs assist victims, aid in restoring and rebuilding damaged properties, and assist in reconstituting government operations and services

**Regional Response Team (RRT):** Regional counterparts to the National Response Team, the RRTs comprise regional representatives of the Federal agencies on the NRT and representatives of each State within the region. The RRTs serve as planning and preparedness bodies before a response, and provide coordination and advice to the Federal OSC during response actions.

**Resource Staging Area:** Central location where equipment, food, water, and ice are received and distributed in support and shelter operations.

---

**Response:** Immediate and short-term actions taken to preserve life, property, the environment, and the social, economic, and political structure in the aftermath of an incident.

**Risk Area:** Hurricane evacuation areas whose boundaries are tied directly to anticipated surge and wind penetration depth of a tropical storm or hurricane. As of 2009, Texas coastal areas using the “risk area” approach are Lake Sabine (Orange, Jefferson, Hardin, Jasper, and Newton Counties), Matagorda (Calhoun, Victoria, and Jackson Counties) and the Valley (Cameron and Willacy Counties). There are five risk areas corresponding to the five categories of hurricanes defined by the Saffir-Simpson Wind Scale and the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model.

**Service Animal:** Any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items.

**Shelter:** Short-term lodging facilities opened for evacuees prior to, during, and after an incident. Shelters are typically places where mass care operations are conducted and are generally located away from known hazards.

**Shelter Hub:** A pre-identified, inland city possessing sufficient infrastructure and resources to logistically support and deploy resources for large-scale evacuations and mass care operations. Generally, a shelter hub would be located along a coastal evacuation route and away from potential hazards.

**Special Needs Population:** Individuals who cannot self-evacuate for underlying or unknown reasons.

**State Active Duty (SAD):** TxMF activated under the Governor's State authority in support of state operations.

**State Transportation Assistance Registry:** A local registry of people who request State evacuation assistance via the 2-1-1 Texas Information and Referral Network.

**State On-Scene Coordinator (SOSC):** The official designated by the state agency of appropriate jurisdiction (i.e., the lead agency) to coordinate and direct state-funded responses or to oversee private responses, to discharges or spills. This term may be used interchangeably with agency on-scene coordinator.

**Staging Area:** Place where personnel and/or equipment are located on an incident awaiting an assignment.

**Terrorism or Terrorist Incident:** A violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any state, to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.

**Texas Catastrophic Fire Steering Committee:** A working group composed of representatives of the EPA, Industrial Fire Training Board, mutual aid associations, TEEEx, TFS, TFCA, TCEQ, and IFSS Support Group.

**Texas Military Forces (TxMF):** The joint force composed of the Texas Army National Guard (TxARNG), Texas Air National Guard (TxANG), Texas State Guard (TxSG), and the Adjutant General's Department (AGD) -- all commanded by the Adjutant General of Texas, who reports to the Governor.

**Threat:** An indication of possible violence, harm, or danger

**Unified Command:** Joint organization with Incident Commander's from agencies with common responsibilities for the incident. Operates under a common set of objectives with a single Operations Section Chief.

---

Veterinary Medical Assistance Team: Highly trained teams established by the American Veterinary Medical Association and sponsored by the American Veterinary Medical Foundation which assist the USDA and states in the control, treatment, and eradication of animal disease outbreaks. Composed of veterinarians, veterinary technicians, scientists, epidemiologists, toxicologists, and other medical and lay support personnel, responsibilities include humane euthanasia, epidemiology, assessment of medical needs of animals, medical treatment and stabilization of animals, animal disease surveillance, zoonotic disease surveillance and public health assessment, technical assistance to assure food and water quality, hazard mitigation, biological and chemical terrorism surveillance, animal decontamination, and medical treatment for working dogs.

Weapon of Mass Destruction (WMD): As defined in Title 18, U.S.C. § 2332a: (1) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or missile having an explosive or incendiary charge of more than one-quarter ounce, or mine or similar device; (2) any weapon that is designed or intended to cause death or serious bodily injury through release, dissemination, or impact of toxic or poisonous chemicals or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

---

## **APPENDIX C**

### **Previous Legislative Reports**

*A selection of Texas House and Senate Reports that pertain to emergency preparedness, 2001-2010*

#### **Senate Committee On Natural Resources, Interim Report To The 78th Legislature**

**Submitted:** August 2002

**Chairman:** Senator Robert Duncan

**Charges addressed:**

*Charge 4. 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 state coordination with the federal government and political subdivisions of the state.*

#### **House Committee On Agriculture And Livestock, Interim Report To The 78th Texas Legislature**

**Submitted:** November 2002

**Chairman:** State Representative David Swinford

**Charges addressed:**

*Charge 3. Gather information about the production, distribution and use of agricultural chemicals and fertilizers, including the aerial application of chemicals. Review government regulations and business practices to determine whether legislation is needed to protect life and property and to detect, interdict and respond to acts of terrorism."*

#### **Senate Committee On Criminal Jurisprudence, Interim Report To The 78th Texas Legislature**

**Submitted:** January 2003

**Chairman:** Senator Juan J. Hinojosa

**Charge addressed:**

*Charge 1: Review changes in federal laws and law enforcement procedures, as well as recommendations from state and national agencies charged with homeland protection, to assess the need for changes in state criminal laws to protect life and property and to detect, interdict and respond to acts of terrorism*

*Charge 2: Consider ways to cooperate with Mexican states to reduce international drug trafficking.*

---

**Senate Committee On Infrastructure And Security, Interim Report To The 79th Legislature**

**Submitted:** December 2004

**Committee:** Senator Todd Staples

**Charges addressed:**

*Charge 7: Evaluate state and local efforts to enhance the security of Texans and make recommendations for improving Texas' ability to detect, deter, and respond to acts of terrorism, including state plans and programs for addressing bioterrorism. Regarding bioterrorism events, the Committee shall focus on early detection of an incident, reporting of information from local health entities, and ability to organize and administer a mass vaccination. Make recommendations relating to improvements to state and local communications networks and develop innovative methods for sharing federal, state, and local information.*

*Charge 8: Study the issue of interoperable communications for first responders. The Committee shall assess the status of this capability and evaluate available technology and costs. In addition, the Committee shall explore pilot programs and proposals by entities such as DPS and the Sheriff's Association, who have been working to assess new technologies and the cost of implementation of systems to assist in effective communication between all parts of the state.*

**Senate Committee On Transportation And Homeland Security, Interim Report To The 80th Legislature**

**Submitted:** December 2006

**Chairman:** Senator John Carona

**Charges addressed:**

*Charge 3: Examine the roles and best practices among individuals, state and local governments, hospitals and other health care providers, and the insurance industry for disaster planning and first response efforts. Explore what changes are needed to better prepare for natural disasters to mitigate claims and losses. Include an assessment of the state's implementation of recent recommendations for evacuations, including movement of medically fragile populations. Study the level of preparedness among critical infrastructure entities in both the public and private sector, the effectiveness of state disaster relief policies relating to this infrastructure and the sufficiency of personnel needed to restore this infrastructure. Assess the state's preparedness to handle a public health emergency. Examine the challenges of interoperability of communications technologies to improve coordination of different plans across jurisdictions*

*Charge 7: Review the status of structurally deficient bridges and provide increased oversight of TxDOT's bridge repair activities to ensure that any unsafe bridges are identified and repaired as soon as possible.*

---

**Senate Committee on Criminal Justice, Interim Report to the 80th Legislature**

**Submitted:** December 2006

**Committee:** Senator John Whitmire

**Charges addressed:**

*Charge 3. Study the impact of laws designed to reduce illegal drug use and make recommendations for reducing access to illegal drugs and for developing best practices for preventative programs, focusing on drugs targeted for the younger population, such as cheese heroin. Assess the impact of limiting access to pseudoephedrine, including the impact restrictions have had on illegal manufacturers' methods for producing methamphetamine.*

**Senate Subcommittee on Flooding And Evacuations Interim Report to the 81st Legislature**

**Submitted:** December 3, 2008

**Chair:** Senator Mario Gallegos

**Charges Addressed:**

*Charge 1: Monitor the implementation of priority legislation addressed by the Subcommittee on Flooding and Evacuations, 80th Legislature, Regular Session, and make recommendations for any legislation needed to improve or enhance and complete implementation.*

*Charge 2: Report on the implementation of SB 1436, 80th Legislature, Regular Session, which transferred the National Flood Insurance Program from the Texas Commission on Environmental Quality to the Texas Water Development Board. Make recommendations for improving the efficiency and effectiveness of the program.*

**Senate Committee On Transportation And Homeland Security Interim Report To The 81st Legislature**

**Submitted:** December 2008

**Chairman:** Senator John Corona

**Charge addressed:**

*Charge 1: Evaluate the state's homeland security efforts and the state's recent \$140 million investment in law enforcement to help secure the border and study and make recommendations to deter transnational and drug-related gang violence and crime, including the use of injunctions and any possible improvements to Chapter 125 of the Civil Practices and Remedies Code, relating to membership in street gangs.*

*Charge 2: Study and make recommendations for the creation of a tamper-proof driver's license or photo ID that complies with the federal Real ID Act, including the implementation of the Secure Enhanced Drivers' License Program (SB 11, 80th Legislature, Regular Session), by the Department of Public Safety and issue recommendations for improving and expanding the pilot program.*

---

*Charge 3: Examine the roles and best practices among individuals, state and local governments, hospitals and other health care providers, and the insurance industry for disaster planning and first response efforts. Explore what changes are needed to better prepare for natural disasters to mitigate claims and losses. Include an assessment of the state's implementation of recent recommendations for evacuations, including movement of medically fragile populations. Study the level of preparedness among critical infrastructure entities in both the public and private sector, the effectiveness of state disaster relief policies relating to this infrastructure and the sufficiency of personnel needed to restore this infrastructure. Assess the state's preparedness to handle a public health emergency. Examine the challenges of interoperability of communications technologies to improve coordination of different plans across jurisdictions*

**House Committee On Defense Affairs And State-Federal Relations, Report To The 81st Texas Legislature**

**Submitted:** January 9, 2009

**Chairman:** State Representative Frank J. Corte, Jr.

**Charges addressed:**

*Charge 5: Examine the State of Texas' preparedness level to handle a public health emergency. (Join Interim Charge with the House Committee on Public Health.)*

**House Select Committee On Hurricane Ike Devastation To The Texas Gulf Coast Final Report**

**Submitted:** January 12, 2009

**Chairman:** State Representative Sylvester Turner

**Charge Addressed:**

*Review all matters relating to the disaster and emergency preparedness and response, particularly as they relate to the state and local government preparedness for and response to the recent crisis caused by Hurricane Ike, and to identify issues for the Legislature to address in preparing for future disasters and emergencies and their aftermaths.*

**Senate Committee On International Relations And Trade Interim Report To The 81st Texas Legislature**

**Submitted:** January 2009

**Chairman:** Senator Eddie Lucio, Jr.

**Charges addressed:**

*Charge 2: Determine the appropriateness of and make recommendations on the existing extraterritorial jurisdiction authority currently granted under Colonia prevention measures along the border region.*

*Charge 5: Study and make recommendations to stem the tide of illegal immigration, drug trafficking, and human smuggling, and to reduce the criminal activities within the Border region. (Joint charge with Senate Committee on Transportation and Homeland Security)*



---

**Senate Subcommittee On Flooding And Evacuations Interim Report, Report To The 81st Legislature**

**Submitted:** January 2009

**Chairman:** Senator Mario Gallegos

**Charges addressed:**

*Charge 1: Study the benefit of legislation that would require coastal regions, when making routine improvements to drainage systems and other infrastructure, to take into account probability of future flooding and any upgrades necessary to prevent future flooding.*

*Charge 2: Study and make recommendations on methods of emergency notification during a natural disaster. Look into alternative systems and new technologies for rerouting 911 -type calls to become more efficient and effective. Study and make recommendations to streamline the process of informing citizens impacted by an emergency or disaster prior to the event about re-entry and aid.*

*Charge 3: Study and make recommendations relating to cost effective options to either retrofit or require new building structures to be built as shelters for use during future evacuations.*

---

## **APPENDIX D**

### **Witness lists from HSCEP hearings**

#### **1. House Select Committee on Emergency Preparedness**

**Date:** March 30, 2010

**Location:** State Capitol, Austin, Texas

##### **Continuity of Government**

Wallace Jefferson (Supreme Court of Texas Judicial Council)

Jim Weatherby (Texas Legislative Council)

Mark Humphrey (Texas Legislative Council)

##### **Emergency Management**

Steven McCraw (Department of Public Safety)

Jack Colley (Department of Public Safety)

Doug Holt (Department of Information Resources)

#### **2. House Select Committee on Emergency Preparedness**

**Date:** May 17, 2010

**Location:** McAllen, Texas

##### **Border Security Related Emergencies**

Miguel Diaz-Barriga (Professor of Anthropology)

Margaret Dorsey (Professor of Anthropology)

Chief Juan Gonzalez (City of San Juan Police Department)

Steven McCraw (Department of Public Safety)

Chad Richardson (Professor, Researcher, Author)

Jose Rodriguez (Department of Public Safety)

Shawn Snider (City of Edinburg Emergency Management)

Sam Vale, (Starr-Camargo Bridge Company)

Monica Weisberg-Stewart (Texas Border Coalition)

##### **Hurricane Preparedness**

Eduardo Campirano (Brownsville Navigation District, Port of Brownsville)

Johnny Cavazos (Cameron County Emergency Management)

Jeral Estupinan (National Weather Service)

David Hooper (American Electric Power - Texas)

Eduardo Olivarez (Hidalgo County Health and Human Services, Texas Association of Local Health Officials)

Pilar Rodriguez (City of McAllen)

---

Bill Skeen, (Rio Grande Institute)  
Charles Smith (Aransas County)  
Wendy Smith (City of McAllen)

**Oil spill in the Gulf of Mexico**

Jerry Patterson (General Land Office)  
Greg Pollock (General Land Office)

**3. House Select Committee on Emergency Preparedness s/c on Hurricanes  
Flooding and Evacuations**

**Date:** June 18, 2010

**Location:** Houston, Texas

**Evacuations and Re-entry**

Tommy Blanchard (Businessman)  
Kevin Boxx (Pier Systems)  
Dohn Labiche (Texas Society of Architects, Disaster Action Inc)  
DJ Pendleton (Texas Manufactured Housing Association)  
Daniel Renau (Pegasus Program)  
John Wilson (Harris County Dept of Education/Center for Safe and Secure Schools)

**Hurricanes and Flooding**

Jennifer Barclay (South East Texas Regional Planning Commission)  
Philip Bedient (SSPEED Center, Rice University)  
Jim Blackburn (SSPEED Center, Rice University)  
Robert Eckels (*Gulf Coast Community* Protection and Recovery *District*, Inc)  
William Merrell (Professor)  
Mark Sloan, (Harris County Office of Homeland Security and Emergency Management)

**4. House Select Committee on Emergency Preparedness**

**Date:** June 18, 2010

**Location:** Houston, Texas

**Deepwater Horizon Oil Spill Update**

Guy Grossman (Railroad Commission of Texas)  
Greg Pollock (Texas General Land Office)

**Industrial Accidents and Homeland Security**

Michael Dirden (Houston Police Department)  
Robert Doguim (Harris County Sheriff's Office)  
James Edmonds (Port of Houston Authority)

---

Ed Emmett (Harris County and the Office of Emergency Management)  
Adrian Garcia (Sheriff, Harris County)  
Mark Hernandez (U.S. Department of Labor, OSHA)  
Sheila Jackson Lee (Congresswoman)  
Robert Janusaitis (InfraGard Houston)  
Dale Kohler (Texas Commission on Environmental Quality)  
Carl Matejka (City of Houston)  
Sharon Nalls (City of Houston)  
Robin Riley (Houston Ship Channel Security District)  
Gary Scheibe (City of Houston Chief of Police)  
Dennis Storemski (City of Houston)

## **5. House Select Committee on Emergency Preparedness s/c on Continuity of Government, Infrastructure and Communications**

**Date:** June 18, 2010

**Location:** Houston, Texas

### **Continuity of Government**

Mark Combs (Harris County District Clerk)  
Susan Criss (212th District Court and Galveston County)  
Loren Jackson (Harris County District Clerk's Office)  
Joe Jaworski (Mayor of Galveston)  
Olen Underwood (Task Force on Judicial Readiness)  
La Tonia Wilson (District Clerk Galveston County)

### **Communications**

Kenneth Adams (Brazoria County Office of Emergency Management)

### **Infrastructure**

John Slanina (Centerpoint Energy Houston Electric, LLC)

## **6. House Select Committee on Emergency Preparedness s/c on Border Security, Health and School Centered Emergencies**

**Date:** September 17, 2010

**Location:** Dallas, Texas

### **Criminal Threats**

Andrew Acord, (Dallas Police Department)  
Ronnie Bardin (Dallas Police Department)  
Drayson Robertson (Dallas Police Department)  
Edwin Ruiz-Diaz (Dallas Police Department)

---

Christina Smith (Dallas Police Department)

**Disaster Response**

Robert McKee, (Texas Engineering Extension Service)

Kenny Shaw (Director City of Dallas - Emergency Management)

**Public Health Response**

Jorie Klein (Parkland Health and Hospital System)

Scott Lillibridge, M.D. (Texas A&M Health Science Center, National Center for  
Emergency Preparedness)

Ann Salyer-Caldwell (Tarrant County Public Health)

Zac Thompson (Dallas County Health and Human Services)

**School Related Emergencies**

Gary Hodges (Dallas I.S.D.)

Suzanne Kubelka (Dallas I.S.D.)

**7. House Select Committee on Emergency Preparedness**

Date: September 17, 2010

Location: Dallas, Texas

**Criminal Threats**

Jack Webster, (Department of Public Safety)

Bryant Wells (Texas Rangers / Texas DPS)

**Disaster response**

David Casteel (Texas Dept of Transportation)

Joseph Church (Roctest Inc.)

Don Galloway (Texas Forest Service)

Brenda Pulis (Oncor Electric Delivery)

**Emergency Warning Systems**

Ann Arnold (Texas Association of Broadcasters)

Ben Downs (Texas Association of Broadcasters)

**Evacuations**

Rose Cannaday (Texas High-Speed Rail and Transportation Corporation, South Central  
High-Speed Rail and Transportation Authority Inc.)

**Mass Care**

Matthews, Michele (Mass Care Task Force, The Salvation DFW Metroplex Command)

---

## **8. House Select Committee on Emergency Preparedness s/c on Border Security, Health and School Centered Emergencies**

Date: September 24, 2010

Location: El Paso, Texas

### **Border Community Preparedness**

Ricardo Blazquez (The University of Texas at El Paso)

John Cook (The City of El Paso)

Ralph Johnson (Office of Emergency Management City/County of El Paso)

### **Emerging Technology and Emergency Preparedness**

Harry Schulte (El Paso Solar Energy Association)

### **Public Health Preparedness**

Joanne Bates (City of El Paso Department of Public Health)

Dennis Hale (University Medical Center)

Mark Matthys (American Red Cross El Paso)

### **School Related Preparedness**

Robert Moss (The University of Texas at El Paso)

Cliff Walsh (The University of Texas at El Paso)

---

## ENDNOTES

- 1 Testimony of Jack Colley from the House Select Committee on Emergency Preparedness (HSCEP) Austin hearing, Mar 30, 2010
- 2 Line breaks, parenthesis and italics added
- 3 Congressional Research Service, *Southwest Border Violence*, p. 5  
<http://www.fas.org/sgp/crs/homsec/R41075.pdf>
- 4 State Emergency Plan (*SEP*) Revision 5 p. 4 (parentheses added)
- 5 Texas Homeland Security Strategic Plan 2010-15 (*THSSP*) p.23  
<http://www.txdps.state.tx.us/dem/pages/hmlndSecStratPlan.pdf>
- 6 Associated Press, Jun 17, 2010  
[http://www.cbsnews.com/2994-501369\\_162-0.html](http://www.cbsnews.com/2994-501369_162-0.html)
- 7 *Ibid*
- 8 *Ibid*
- 9 *THSSP* 2010-15 p.47
- 10 Having said that, many cartel leaders have acquired a "Robin Hood" like image - employing an ideological edge to their activities. Indeed, one Mexican Cartel - La Familia - seems to have evolved an evangelical zeal within its operations - BBC News Oct 22, 2009  
<http://news.bbc.co.uk/2/hi/americas/8319924.stm>
- 11 Senate Criminal Justice Committee Interim Report to the 80th Legislature, Dec 2006, p.25
- 12 National Drug Threat Assessment 2010, p.1  
<http://www.justice.gov/ndic/pubs38/38661/index.htm#Contents>
- 13 Houston Chronicle, Aug. 5, 2010  
<http://www.chron.com/disp/story.mpl/metropolitan/7139792.html>
- 14 *THSSP* 2010-15 p.40 For more information on port security, see Chapter 9
- 15 Houston Chronicle, Aug 5, 2010  
<http://www.chron.com/disp/story.mpl/metropolitan/7139792.html>
- 16 Senate Committee On Transportation And Homeland Security Report to the 81st Legislature, Dec 2008 (*SCTHS2008*) p.1
- 17 Rio Grande Guardian, Oct 7, 2010  
[http://www.riograndeguardian.com/rggnews\\_story.asp?story\\_no=6](http://www.riograndeguardian.com/rggnews_story.asp?story_no=6)
- 18 San Antonio Express News, Jun 3, 2010  
[www.mysanantonio.com/news/local\\_news/bomb\\_plot\\_alert\\_at\\_falcon\\_dam\\_95481059.html](http://www.mysanantonio.com/news/local_news/bomb_plot_alert_at_falcon_dam_95481059.html)
- 19 Associated Press, Mar 29 2010  
<http://abcnews.go.com/US/wirestory?id=10227942&page=1>
- 20 Congressional Research Service, *Southwest Border Violence*, p. 15  
<http://www.fas.org/sgp/crs/homsec/R41075.pdf>
- 21 BBC News, Jul 25, 2010  
<http://www.bbc.co.uk/news/world-latin-america-10757242>
- 22 The New York Times, Oct 7, 2010  
<http://www.nytimes.com/2010/10/08/us/08pirate.html?src=mv>
- 23 The Texas Observer, Apr 6, 2010  
<http://www.texasobserver.org/cover-story/tweeting-the-dead>
- 24 Reuters, Oct 12, 2010  
<http://www.reuters.com/article/idUSTRE69B3LZ20101012>
- 25 Testimony of El Paso Mayor John Cook, from the HSCEP s/c on Border, Health and School

---

Related Emergencies El Paso hearing, Sept 24, 2010  
26 McAllen Monitor, Aug 19, 2010  
<http://www.themonitor.com/news/border-42028-mcallen-chiefs.html>  
27 *SCTHS2008* p.5  
28 Testimony from the HSCEP McAllen hearing, May 17, 2010  
29 Congressional Research Service, *Southwest Border Violence*, p.11  
<http://www.fas.org/sgp/crs/homesec/R41075.pdf>  
30 Testimony from the HSCEP McAllen hearing, May 17, 2010  
31 Texas Border Coalition White Paper On Border Security 2009 p.1  
32 *THSSP* 2010-15 p.34  
<http://www.txdps.state.tx.us/dem/pages/hmlndSecStratPlan.pdf>  
33 Houston Chronicle, Aug 10th, 2010  
<http://www.chron.com/disp/story.mpl/metropolitan/7148094.html>  
34 McAllen Monitor, Aug 16, 2010  
<http://www.themonitor.com/articles/tracks-41873-fingerprints-valley.html>  
35 Arizona State Senate Bill 1070, p.1  
<http://www.azleg.gov/legtext/49leg/2r/bills/sb1070s.pdf>  
36 KRGV News, Sep 10, 2010  
<http://www.krgv.com/news/local/story/Suspected-Thieves-Caught-Crossing-Vehicles-into/J3sQFpbYKkiMtxB6L6-Eiw.csp>  
37 Governor's Task Force on Evacuation, Transportation and Logistics, Final Report, Feb 2006  
38 *Ibid*  
39 Testimony from the HSCEP McAllen hearing, May 17, 2010  
40 Texas Observer, Aug 12, 2009  
<http://www.texasobserver.org/archives/item/15750-no-way-out>  
41 Testimony from Senate s/c on Flooding & Evacuations Austin hearing, Oct 18, 2010  
42 Press Release, U.S. Congressman Henry Cuellar Jul 16, 2010  
[http://www.mcallen.net/news/default/2010-07-16/hidalgo\\_county\\_receives\\_funds\\_to\\_fight\\_mosquitos.aspx](http://www.mcallen.net/news/default/2010-07-16/hidalgo_county_receives_funds_to_fight_mosquitos.aspx)  
43 Hurricane Ike, RICE: SSPEED Center Conference:  
[http://hydrology.rice.edu/sspeed/sspeed\\_conference\\_2010/sspeed\\_about.html](http://hydrology.rice.edu/sspeed/sspeed_conference_2010/sspeed_about.html)  
44 The Port of Houston Authority, main webpage  
<http://www.portofhouston.com/geninfo/overview1.html>  
45 *Learning the lessons of Hurricane Ike*, SSPEED publication  
<http://media.rice.edu/images/media/Dateline/2010-05-26-sspeed.pdf>  
46 Houston Chronicle, Aug. 24, 2009  
<http://www.chron.com/disp/story.mpl/metropolitan/6585743.html>  
47 *Learning the lessons of Hurricane Ike*, SSPEED  
<http://media.rice.edu/images/media/Dateline/2010-05-26-sspeed.pdf>  
48 Houston Chronicle, May 31, 2010  
<http://www.chron.com/disp/story.mpl/news/specials/hurricane/7030757.html>  
49 Correspondence between Professor Merrell and HSCEP committee staff  
50 *Learning the lessons of Hurricane Ike*, SSPEED  
<http://media.rice.edu/images/media/Dateline/2010-05-26-sspeed.pdf>  
51 Testimony from the HSCEP s/c on Hurricanes Flooding and Evacuations, Houston hearing,



---

June 18, 2010

52 House Select Committee on Hurricane Ike Devastation to the Texas Gulf, Coast Final Report, Jan 2009, p. 13

53 *SEP*, Appendix 4 of Annex H, p. H-H-4

54 Testimony from the HSCEP McAllen hearing, May 17, 2010

55 *SEP* Appendix 7 to Annex H p. H-7-5

56 Senate Committee on Health And Human Services Interim Report, Dec 2008, p.213

57 CDC's 2010 Report: *Public Health Preparedness*

<http://www.bt.cdc.gov/publications/2010phprep/download.asp>

58 Texas received \$26.2m in FY2010 and \$28.4m in FY2011 for the HPP program. Texas received \$42.7m FY2010 and \$43m in FY2011 for the PHEP program.

59 Social Distancing presentation by Dr. David L. Lakey, 10/27/08 in *STHS2008* p.30

60 Correspondence between DSHS and HSCEP committee staff

61 Senate Committee on Health And Human Services Interim Report, Dec 2008, p.213

62 *Ibid* The Report noted that, "One in four Texans, or 25 percent of the population, is uninsured. Uninsured Texans often do not have a Primary Care Physician and use emergency rooms as their medical home." p.225

63 *SCTHS2008* p.29

64 *SEP* Appendix 7 to Annex H p. H-7-5

65 Opinion prepared by the Office of General Counsel, DSHS April 26, 2006

66 *THSSP* 2010-15 p.54

67 Trauma System Consultation, May, 2010, American College of Surgeons, Committee on Trauma p. 71

[http://www.dshs.state.tx.us/emstraumasystems/ACSTexasTraumaSystemConsultationReport\\_Final.pdf](http://www.dshs.state.tx.us/emstraumasystems/ACSTexasTraumaSystemConsultationReport_Final.pdf)

68 Testimony of Parkland Hospital staff from the HSCEP Dallas hearing Sept 17, 2010

69 Senate Committee on Health And Human Services Interim Report, Dec 2008, p.225

70 House Committee on Defense Affairs and State-Federal Relations Interim Report, Dec 2008

71 Sec. 418.1882 of the Texas Government Code.

72 House Committee on Defense Affairs and State-Federal Relations, Interim Report, Dec 2008 Legislature, p.21

73 Sec. 418.043 of the Texas Government Code

74 More information on the PWRT is available in Chapter 5

75 Correspondence between NCEMPR and HSCEP committee staff

76 Testimony of NCEMPR staff from the HSCEP Dallas hearing, Sept17, 2010

77 Senate Committee on International Relations and Trade Interim Report, Dec 2008 p.9

78 Austin American Statesman, June 17, 2010

<http://www.statesman.com/news/texas-politics/looking-east-texas-oil-spill-unit-keeps-busy-752440.html>

79 Senate Interim Committee on Natural Resources Final Report to the 78th Legislature, Aug 2002 p.17

80 Testimony of Harris County Judge Ed Emmett from the HSCEP Houston hearing, May 17 2010

81 Tropical Storm Allison Recovery Project, *Overview*

[http://www.tsarp.org/tsarp\\_over/lidar.html](http://www.tsarp.org/tsarp_over/lidar.html)

82 USA Today, Sep 22, 2010

[http://www.usatoday.com/news/nation/2005-09-22-rita-evacuate\\_x.htm](http://www.usatoday.com/news/nation/2005-09-22-rita-evacuate_x.htm)

---

83 Stormwater Rates, El Paso Public Water Service:  
[http://www.epwu.org/stormwater/stormwater\\_rates.html](http://www.epwu.org/stormwater/stormwater_rates.html)

84 El Paso's Stormwater Master Plan  
[http://www.epwu.org/stormwater/master\\_plan.html?reload](http://www.epwu.org/stormwater/master_plan.html?reload)

85 Testimony of TFS staff from the HSCEP Dallas hearing, Sept 17, 2010

86 KFDM News, Sept 1, 2010  
<http://www.kfdm.com/news/crews-39240-finished-tanker.html>

87 Houston Chronicle, Aug. 18, 2010  
<http://www.chron.com/disp/story.mpl/business/7159288.html>

88 Testimony at the Senate Subcommittee on Hurricanes Flooding and Evacuations Austin hearing, Oct 17th, 2010

89 For more information, see The Governor's Task Force on Evacuation, Transportation and Logistics, Final Report February 2006

90 THSSP 2010-15 p.13

91 Correspondence between HSCEP committee staff and the Texas Department of Public Safety

92 Georgia is second with a mere 159 counties

93 Testimony from the HSCEP McAllen hearing, May 17, 2010

94 For more information on NIMS visit  
<http://www.fema.gov/emergency/nims/FAQ.shtm>

95 THSSP 2010-15 p.3

96 SCTHS2008 p. 32

97 Sec. 418.188 of the Texas Government Code

98 THSSP 2010-15 p.7

99 Testimony of Texas Association of Broadcasters staff from the HSCEP Dallas hearing, Sept 17, 2010

100 Correspondence between the City of Dallas Office of Emergency Management and HSCEP committee staff

101 Testimony of TDEM staff from the Senate Subcommittee on Flooding & Evacuations Houston hearing, Aug 24, 2010

102 Testimony of Texas Association of Broadcasters staff from the HSCEP Dallas hearing, Sept 17, 2010

103 2-1-1 Texas Information & Referral Network Fact Sheet, p.1  
<http://www.txdps.state.tx.us/ftp/dem/publicinfo/211factsheet.pdf>

104 Texas Health and Human Services Commission correspondence with HSCEP committee staff

105 State Operations Center Tropical Storm Hermine Situation Report # 5, 9/10/10  
<ftp://ftp.txdps.state.tx.us/dem/sitrep/Tropical%20Storm%20Hermine%20SITREP%205%20091010.pdf>

106 Sunset Advisory Commission Staff Report, p.2  
[http://www.sunset.state.tx.us/82ndReports/CSEC/CSEC\\_DEC.pdf](http://www.sunset.state.tx.us/82ndReports/CSEC/CSEC_DEC.pdf)

107 *Ibid* p.29

108 CSEC 911 Master Plan, *Executive Summary*  
[http://www.911.state.tx.us/files/pdfs/ng911\\_master\\_plan\\_feb\\_2009.pdf](http://www.911.state.tx.us/files/pdfs/ng911_master_plan_feb_2009.pdf)

109 Sunset Advisory Commission Staff Report, p.2  
[http://www.sunset.state.tx.us/82ndReports/CSEC/CSEC\\_DEC.pdf](http://www.sunset.state.tx.us/82ndReports/CSEC/CSEC_DEC.pdf)

- 
- 110 CSEC, *911 Master Plan*, p. 1  
[http://www.911.state.tx.us/files/pdfs/ng911\\_master\\_plan\\_feb\\_2009.pdf](http://www.911.state.tx.us/files/pdfs/ng911_master_plan_feb_2009.pdf)
- 111 Emergency management, June 28, 2010  
<http://www.emergencymgmt.com/safety/Plans-Social-Media-Survey.html?ref=254>
- 112 Austin American Statesman, Sept. 28, 2010  
<http://www.statesman.com/news/local/early-reviews-positive-on-uts-notifications-response-to-943350.html>
- 113 Emergency Management, Sept 24, 2010  
<http://www.emergencymgmt.com/disaster/NC-County-Monitoring-Social-Media-Emergency.html>
- 114 Government Technology Aug 24, 2010  
<http://www.govtech.com/public-safety/California-to-Deploy-Nations-First-Mass.html>
- 115 Los Angeles Times, June 21, 2010  
<http://articles.latimes.com/2010/jun/21/local/la-me-city-phone-app-20100622>
- 116 Testimony from the HSCEP s/c on Continuity of Government, Infrastructure and Communication, Houston hearing, June 18, 2010
- 117 Stateline, Jan 12, 2006  
<http://www.stateline.org/live/details/story?contentId=79964>
- 118 Testimony from HSCEP s/c on Hurricanes Flooding and Evacuations Houston hearing, June 18, 2010
- 119 Correspondence between TxDOT and HSCEP committee staff
- 120 National Council on Disability, Final Report, Aug 12, 2009 p. 14  
[http://www.ncd.gov/newsroom/publications/2009/NCD\\_EmergencyManagement\\_HTML/EffectiveEmergencyManagement.html](http://www.ncd.gov/newsroom/publications/2009/NCD_EmergencyManagement_HTML/EffectiveEmergencyManagement.html)
- 121 Testimony from the HSCEP Dallas hearing, Sept 17, 2010
- 122 Feasibility study by Amtrak for Houston and Harris Counties made available to the committee by TxDOT
- 123 Testimony from the HSCEP s/c on Hurricanes Flooding and evacuations Houston hearing, June 18, 2010
- 124 HHSC meeting in Austin, July 15, 2010, Room E1.014
- 125 *SCTHS2008* p. 24
- 126 *Ibid* p.17
- 127 *Ibid* p.16
- 128 *SEP* p. 5
- 129 Correspondence between TDEM and HSCEP committee staff
- 130 2007 Hurricane Dean *After Action Report*, p.3, by TDEM
- 131 Information from TxTF2's webpage  
<http://www.northtexasusar.com/>
- 132 Correspondence between Governor Perry and President Obama regarding Hurricane Alex  
[http://governor.state.tx.us/files/press-office/O-ObamaBarack20107280769\\_\(2\).pdf](http://governor.state.tx.us/files/press-office/O-ObamaBarack20107280769_(2).pdf)
- 133 House Select Committee on Hurricane Ike Storm Devastation final report, Jan 2009, p.29
- 134 Correspondence between TDEM and HSCEP committee staff
- 135 Dallas Launches Citywide Interoperability Network, Government Technology,  
<http://www.govtech.com/security/Dallas-Launches-Citywide-Interoperability-Network.html>
- 136 Correspondence between TxDOT and HSCEP committee staff

---

137 Correspondence between TARC and HSCEP committee staff  
138 Testimony of Centerpoint representatives from the HSCEP Houston hearing, June 18, 2010  
139 Testimony of AEP Texas representatives from the HSCEP McAllen hearing, May 17, 2010  
140 Testimony of Oncor representatives from the HSCEP Dallas hearing, Sept 17, 2010  
141 House Select Committee on Hurricane Ike Storm Devastation final report  
142 *THSSP* 2010-15 p. 59  
143 Testimony from the HSCEP Houston hearing, June 18, 2010  
144 Correspondence between TARC and HSCEP committee staff  
145 Testimony from the HSCEP Houston hearing, June 18, 2010  
146 Correspondence between TARC and HSCEP committee staff  
147 Testimony from the HSCEP s/c Border Security, Health and School Centered Emergencies El Paso hearing, Sept 24, 2010  
148 Correspondence between TSA and HSCEP committee staff  
149 Correspondence between DPS and HSCEP committee staff  
150 Sec. 421.001 of the Texas Government Code  
151 *THSSP* 2010-15 p.15  
152 *THSSP* 2010-15 p.41  
153 Correspondence between TDCJ and HSCEP committee staff  
154 *SCTHS2008* p.36  
155 Sunset Advisory Commission Staff Report p.1  
[http://www.sunset.state.tx.us/82ndreports/dir/dir\\_SR.pdf](http://www.sunset.state.tx.us/82ndreports/dir/dir_SR.pdf)  
156 *Ibid* p.17  
157 Correspondence between the Comptroller's office and HSCEP committee staff  
158 Testimony of Port of Brownsville staff from the HSCEP McAllen hearing, May 17, 2010  
159 Testimony of HSCSD representatives from the HSCEP Houston hearing, June 18, 2010  
160 *Ibid*  
161 Sec. 68.201 of the Texas Water Code  
162 Testimony of Port of Brownsville staff from the HSCEP McAllen hearing, May 17, 2010  
163 Testimony of TMHA representatives from the HSCEP Houston hearing, June 18, 2010  
164 Correspondence between TDHCA and HSCEP committee staff  
165 Sunset Advisory Commission Staff Report  
[http://www.sunset.state.tx.us/82ndreports/dhca/dhca\\_SR.pdf](http://www.sunset.state.tx.us/82ndreports/dhca/dhca_SR.pdf)  
166 The committee was made aware of the TDRA  
167 Correspondence between TDRA and HSCEP committee staff  
168 Testimony from the HSCEP s/c on Border Security, Health and School Centered Emergencies, El Paso hearing, Sept 24, 2010  
169 Testimony from the HSCEP Houston hearing, June 18, 2010  
170 Senate Committee on Infrastructure Development and Security 2004 p.53  
171 *SCTHA2008* p. 36  
172 Testimony from the HSCEP Austin hearing, Mar 30,2010  
173 *THSSP* 2010-15 p. 46  
174 Task Force to Ensure Judicial Readiness in Times of Emergency, *Summary*  
<http://www.supreme.courts.state.tx.us/emtf/pdf/JRITESummary.pdf>  
175 Testimony from the HSCEP s/c on Continuity of Government, Infrastructure and Communication, Houston hearing June 18, 2010

- 
- 176 Correspondence between TDEM and HSCEP committee staff
- 177 Correspondence between TDEM and HSCEP committee staff
- 178 Section 418.016 of the Texas Government Code
- 179 Testimony of Judge Olen Underwood from HSCEP s/c on Continuity of Government, Infrastructure and Communication, Houston hearing June 18, 2010
- 180 Testimony from the HSCEP Austin hearing, Mar 30,2010
- 181 Correspondence between DSHS and HSCEP committee staff
- 182 Testimony from the HSCEP Houston Hearing June 18, 2010 and subsequent correspondence with SETRDC
- 183 Correspondence between TFS and HSCEP committee staff
- 184 Correspondence between TDI and HSCEP committee staff
- 185 Correspondence between TxDOT and HSCEP committee staff
- 186 House Select Committee on Hurricane Ike Devastation to the Texas Gulf Coast Final Report, Jan 2009, p.6
- 187 Press Release: Governor's Office, Jan 30, 2007  
<http://governor.state.tx.us/news/press-release/2296>
- 188 Sec. 418.073 of the Texas Government Code
- 189 Correspondence between TFS and HSCEP committee staff
- 190 Including TFS, TDRA and the Texas Association of Regional Counties.
- 191 Houston Chronicle Aug 21, 2010  
<http://www.chron.com/disp/story.mpl/editorial/robison/6014708.html>
- 192 *Learning the lesions of Hurricane Ike*, SSPEED  
<http://media.rice.edu/images/media/Dateline/2010-05-26-sspeed.pdf>
- 193 Correspondence between TEEX and HSCEP committee staff
- 194 Testimony from the HSCEP s/c on Border Security, Health and School Centered Emergencies El Paso hearing, Sept 24, 2010
- 195 New York Times, June 24, 2010  
<http://www.nytimes.com/2010/06/25/us/25clean.html?ref=us>