**North Central Texas
Council of Governments**

RECOVERY FRAMEWORK

April 2020

**North Central Texas
Council of Governments**

IEM.

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Executive Summary

While we cannot predict the exact type, timing, location, or scale of a disaster, we know that the North Central Texas region is susceptible to a variety of natural and human-caused hazards. The North Central Texas Council of Governments (NCTCOG) Recovery Framework provides guidance and tools for local jurisdictions to take proactive steps toward resiliency and put plans and mechanisms in place to facilitate a cohesive, organized, and successful disaster recovery.

The Framework presents a stepwise approach to coordination, organization, and collaboration that can be implemented by all jurisdictions to better prepare for disasters. The Framework presents the following process to support local recovery planning (Figure 1).

Defining Recovery. The Framework defines recovery in three stages—transition, short-term, and long-term—and outlines the goals and objectives of recovery in the days, weeks, months, and years following a disaster.

Assessing Recovery Capabilities. The Framework suggests considerations for local jurisdictions to identify community plans, partnerships, and processes already in place to support recovery planning.

Building a Recovery Organization. The Framework makes recommendations for establishing recovery leadership to direct post-disaster operations, including the Local Disaster Recovery Manager and the Recovery Coordination Task Force. The Framework presents a flexible, inclusive organizational structure that uses Committees and Subcommittees to coordinate government, private-sector, and nonprofit recovery partners.

Figure 1: The Framework provides a stepwise approach to recovery planning

Identifying Recovery Partners. The Framework outlines the types of government, nongovernmental, and private organizations that have participated in past disasters and outlines how their staff, resources, and expertise could support the community in a post-disaster situation. Local emergency managers can use this information to determine who within their community may offer the needed knowledge, skills, and resources to support recovery.

Anticipating Recovery Actions. The Framework includes detailed Recovery Area Annexes for six recovery areas: economic, health and social services, housing, infrastructure, land use planning and development, and natural and cultural resources. Each Annex presents the recovery area's mission, objectives, and potential lead and support organizations. Most importantly, each Annex outlines key recovery activities to be carried out for each phase of recovery.

Applying Recovery Planning Tools. The Framework has a companion Recovery Toolkit that includes a local recovery plan template, tabletop exercise materials, post-disaster checklists, and a suite of resources that address some of the key recovery challenges identified by recovery stakeholders across the North Central

Texas region. The Toolkit is posted online at https://www.nctcog.org/ep/resources/local-disaster-recovery-framework-and-toolkit .

The Framework defines recovery in three phases: transition, short-term, and long-term recovery. *Transition* activities focus on completing response operations and putting mechanisms in place to transition to a Recovery Organization. *Short-term* recovery activities are the first steps to reestablishing normal daily functions and focus on immediate survivor needs and reestablishing critical lifelines. *Long-term* recovery activities ramp up several weeks after the incident, when the focus shifts from immediate recovery needs to establishing a new normal for residents, businesses, and local government. The goals and outcomes of each recovery phase are summarized in Table 1.

Table 1: Key Attributes of Recovery Phases

PHASE	OVERALL GOALS	OUTCOMES
RESPONSE	• Protect life-safety • Prevent and/or reduce damage to the built environment • Contain the incident • Gather initial impact information • Identify critical recovery priorities	• Completion of most, if not all, life-safety measures • Containment of the threat/hazard • Initial assessment of impacts • Identification of immediate recovery objectives
TRANSITION	• Complete all life-safety operations • Conduct damage assessments • Reestablish lifelines and make repairs to critical infrastructure to allow for safe re-entry to the affected area • Activate Recovery Organization and begin the recovery action planning process	• Damage assessments are largely complete • Lifelines partially or fully reestablished (e.g., power, water, gas) • Critical infrastructure (e.g., roads and bridges) repaired/in the process of being repaired • Key recovery staff positions activated
SHORT-TERM RECOVERY	• Support immediate recovery needs of survivors (e.g., reunification, food, shelter) • To the extent possible, repair and rebuild infrastructure, homes, businesses, and other facilities • Direct recovery activities under an operational Recovery Organization	• Displaced residents are transitioned out of emergency shelters • Property owners and businesses are in the process of repairing and rebuilding • Critical infrastructure is repaired/in the process of being repaired • Operations have been fully transitioned to Recovery Organization
LONG-TERM RECOVERY	• Satisfy the recovery needs of survivors • Continue repair and rebuilding of damaged structures and infrastructure • Develop a long-term Recovery Strategy to build back better	• Residents are back in their homes and businesses are reopened • Community is healthy and more resilient

The Framework aims to help emergency managers and recovery partner organizations better understand the complex challenges of recovery by breaking it down into manageable pieces. The Framework categorizes recovery activities by subject area to provide a clear, effective, overarching organizational concept. The Framework discusses six recovery subject areas shown in Figure 2.

Figure 2: Recovery Areas and Critical Functions

Each subject area is deconstructed into key components—or critical functions—that cities and counties may undertake during recovery. The Framework goes one step further to detail the composition of each critical function. Each critical function is broken down into specific activities for the preparedness phase, transition phase, short-term recovery, and long-term recovery. The Framework also suggests local, state, and federal agencies and nongovernmental organizations that may help support each critical function. This level of detail offers emergency managers a comprehensive view of recovery so that they can better determine the staff, equipment, training, plans, polices, and procedures needed to support each area of recovery.

Successful disaster recovery requires contributions from various government, private-sector, and nonprofit partners. Each agency and organization offers unique capabilities and resources to assist disaster survivors and help rebuild the community. The Framework presents a flexible organizational structure that local jurisdictions can customize to facilitate collaboration between a wide range of community recovery partners. It provides guidance for designating a Local Disaster Recovery Manager to direct recovery operations and work in tandem with a Recovery Coordination Task Force to oversee Committees and Subcommittees that carry out assigned recovery activities.

It is important to note that no two recovery situations are the same. Activities occur at different points throughout the course of recovery depending on the incident. Each jurisdiction must assess, prioritize, and address recovery issues according to the needs of the community.

This Framework aims to combine research, international best practices, and subject-matter input to help local jurisdictions put the pieces in place to establish a "new, better normal" following a natural or human-caused disaster. It provides strategies to leverage capabilities, expertise, and resources of public, private, and nongovernmental organizations to support a comprehensive, community-wide recovery. This Framework, coupled with the companion Recovery Plan Toolkit, provides local jurisdictions with guidance and resources to carry out pre-disaster recovery planning processes and build community resilience.

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I. Introduction

Framework Goals and Objectives

The Recovery Framework aims to facilitate and expedite local disaster recovery and help North Central Texas communities establish their "new normal" following a natural or human-caused disaster. The Framework presents a consistent approach to coordination, organization, and collaboration that can be implemented by all jurisdictions. The Framework helps jurisdictions understand and leverage capabilities, expertise, and resources of public, private, and nongovernmental organization (NGO) recovery partners to support a comprehensive, community-wide recovery. This Framework, coupled with the companion Toolkit (available online at https://www.nctcog.org/ep/resources/local-disaster-recovery-framework-and-toolkit), provides emergency managers with guidance, best practices, and resources to develop their own local disaster recovery plans. Specific objectives for the Recovery Framework include the following:

- Describe the phases of recovery and anticipate the activities that will be carried out in the weeks, months, and years following a disaster;

- Establish clear leadership roles to direct post-disaster operations;

- Provide an organizational structure for coordinating government, private-sector, and nongovernment recovery partners to leverage recovery resources in the most efficient way possible;

- Understand potential resources and abilities of community recovery partners to support disaster recovery efforts; and

- Outline anticipated recovery priorities and activities in the areas of economic recovery, health and social services, housing, infrastructure, land use planning and development, and natural and cultural resources.

Scope and Application

This Recovery Framework was customized for cities and counties within the North Central Texas region and members of the NCTCOG. It serves as a guidance document to help jurisdictions develop their own jurisdiction-specific Recovery Plan and does not supersede any existing local plans or procedures.

Each jurisdiction in the region should conduct recovery planning processes to ensure the resulting plan aligns with its state-approved local Emergency Operations Plan and Annex J: Recovery. Texas Division of Emergency Management (TDEM), which provides an overall outline for conducting an initial damage assessment, requesting state and federal disaster assistance, and obtaining a federal disaster declaration and subsequent individual assistance and public assistance. While Annex J provides the initial steps in supporting local recovery, a local Recovery Plan should provide a more comprehensive, detailed understanding of recovery operations during all phases of recovery. The local Recovery Plan should also align with Federal Emergency Management Agency (FEMA)–approved hazard mitigation plans and local land use and development plans, including comprehensive plans and economic development plans.

Development Process and Project Outcomes

Recovery Framework Research and Development

The Recovery Framework was developed through an extensive research process to understand how disasters have been handled around the world and identify recovery best practices and lessons learned. The project contractor, IEM, researched and reviewed more than 100 recovery plans, news articles, guidance documents, after-action reports, and other publicly available sources to identify international best practices for disaster recovery. **Section VII. Research References** lists the various documents reviewed by the IEM research team and provides a short description of each resource.

IEM conducted a content analysis of these documents to identify recovery areas, critical functions, and recovery activities. IEM researchers identified actions in these documents that had been implemented or recommended to increase preparedness and expedite recovery. Evaluating these items became the basis for critical functions and the recovery activities included in the Framework.

IEM applied the findings of the research to develop an initial draft Framework and shared it with the NCTCOG Planning Team and experienced recovery subject-matter experts for their review and input. The expertise of those with recovery experience and input from intended users was essential to the development of an accurate, customized, and effective Recovery Framework for the region.

Framework Testing and Enhancement

In January 2020, NCTCOG hosted a 1-day Recovery Summit and Tabletop Exercise for nearly 200 regional stakeholders. The purpose of the Summit was to share recovery best practices and identify potential Framework improvements. The morning portion of the event included presentations and discussions from recovery subject-matter experts who shared their experiences and expertise. During the afternoon, IEM facilitated a recovery-focused tabletop exercise. This exercise allowed stakeholders to talk through a regional recovery scenario and identify key challenges. IEM captured strengths and areas for improvement in an after-action report/improvement plan and revised the Framework and Toolkit to provide additional information and resources to address participant feedback.

Recovery Toolkit Development

A suite of implementation tools was developed to help local jurisdictions conduct recovery-planning activities. These items are publicly available for download on the NCTCOG website and include the following:

- **Recovery Tabletop Exercise Materials**, including a multi-media PowerPoint presentation, situation manual, and exercise evaluation guide

- **Customizable Recovery Plan Template and Plan Development Guide**, based on Framework principles, that local jurisdictions can use to develop their own plans

- **Post-disaster Recovery Committee Checklists** to help guide recovery staff through the various phases of recovery post-disaster

- **Compilation of Recovery Informational Resources** developed by various organizations to address key recovery challenges and planning gaps identified by regional stakeholders

II. Defining Recovery

A catastrophic disaster can affect nearly every aspect of daily life. In the days, weeks, and months following a disaster, there are many competing priorities, and the long list of recovery needs can quickly overwhelm communities. This section presents foundational concepts for recovery, including the timeline and phases of recovery, the difference between response and recovery activities, and the recovery planning process. This section also introduces six key areas of local recovery—economic, health and social services, housing, infrastructure, land use planning and development, and natural and cultural resources.

Key Factors Affecting Recovery Progress

While each recovery effort is unique, several factors shape the efficiency, timeline, and progress of recovery.

Size, scope, and complexity of disaster impacts. Varying levels of time and resources will be needed depending on the location and extent of damage to infrastructure and buildings and impacts on the local population. For minor or localized impacts, recovery operations such as building repairs and debris removal can be completed within days. For widespread or catastrophic impacts, these same activities could take months or years.

Ability to address recovery needs. Recovery activities may require trained or qualified subject-matter experts such as licensed contractors, civil engineers, or environmental cleanup crews. An affected jurisdiction may need to look outside local government to surrounding jurisdictions, state or federal agencies, private-sector, or nonprofit organizations to provide this expertise and service. Surrounding jurisdictions may need their resources available for their own recovery, and mutual aid may be limited. Private and nonprofit organizations may be affected themselves and have reduced staff or equipment to offer. In a widespread incident, multiple regions or even states may compete for the same services and expertise, creating an even higher demand and requiring local communities to cast an even wider net.

Information sharing, organization, and collaboration among recovery partners. This is key throughout the entire lifecycle of a disaster—from immediate response needs through returning a community to daily life. Damage assessment information and recovery progress must be shared among recovery partners. Many local, state, and federal government agencies and private-sector and nonprofit organizations active during recovery may have not worked together before. The speed and efficiency of collaboration among recovery partners and having a means to organize, collaborate, and share information help reduce duplication of effort and allocate resources where they are needed most.

Relationship Building During "Blue Skies"
It is often said that after a disaster is not the time to be exchanging business cards. Pre-disaster planning efforts should focus on making introductions and building relationships with potential recovery partners so activities can be organized and coordinated quickly. This theme is emphasized throughout the Framework.

Sequence of recovery activities. Some recovery activities require that prerequisite baseline conditions be met. For instance, large quantities of debris must be removed from roads, and roads must be repaired before evacuated residents can return to their homes. While how long it takes to clear and repair roads cannot be predicted, emergency managers can anticipate that this task will be initiated before residents start rebuilding their homes.

Prioritization of recovery issues. Once life-safety concerns are addressed and immediate recovery operations such as power restoration and debris removal are concluded, remaining recovery issues must be

prioritized. Prioritization can be based on informed recommendations of local officials and available funding and resources, or it can be driven by proactive organizations that can organize and hit the ground running. Two communities facing the same disaster impacts and challenges may make completely different decisions about which issues to prioritize based on their values and community culture.

Recovery Timeline

While timing and duration of specific recovery activities vary greatly from disaster to disaster, it is helpful to understand the general phases of recovery. During the pre-disaster or preparedness phase, local communities develop plans to respond to, recover from, and mitigate impacts of a disaster. When an incident occurs, whether it is foreseen or unforeseen, there is a period of time when first responders need to address life-safety issues. This response phase lasts hours and sometimes days. Once life-safety issues have been addressed, operations begin to transition to recovery. There is an overlap period or transition phase where response operations wane and recovery activities ramp-up. Short-term recovery focuses on supporting disaster survivors and initiating rebuilding efforts. Longer-term recovery needs focus on implementing programs and plans to improve community resilience.

National Disaster Recovery Framework Phases of Recovery

FEMA's National Disaster Recovery Framework (NDRF) categorizes recovery into the three phases: *short-term*, *intermediate-term*, and *long-term*. However, it is difficult to clearly and accurately differentiate intermediate recovery activities from short- and long-term activities. For this reason, the timeline can be simplified to eliminate the duplicative intermediate phase. Moreover, one of the most important phases of an incident— the transition from response to recovery—is not addressed in the NDRF recovery timeline.

North Central Texas Framework Phases of Recovery

For the purposes of this Recovery Framework, the timeline for recovery is defined in three phases: *transition*, *short-term recovery*, and *long-term recovery*. Transition activities focus on completing response operations and putting the mechanisms in place to transition to a Recovery Organization. Short-term recovery activities are the first steps to reestablishing normal daily functions. These are generally initiated within the first 8 weeks post-disaster, once life-safety issues have been resolved. Often, short-term recovery tasks are required to be in progress or completed before long-term recovery activities can commence. Long-term recovery activities typically require lead time to identify and coordinate resources and personnel to carry out those activities. The Framework recovery timeline is shown in Figure 3, followed by a summary of the goals and outcomes of each recovery phase (Table 2).
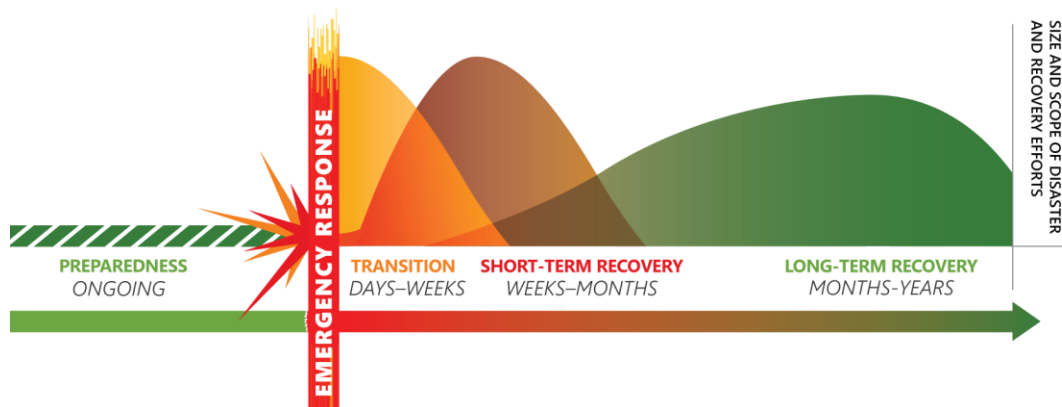
Figure 3: North Central Texas Recovery Framework Phases of Recovery: Transition, Short-term, and Long-term

Table 2: Key Attributes of Recovery Phases

PHASE	OVERALL GOALS	OUTCOMES
RESPONSE	• Protect life-safety • Prevent and/or reduce damage to the built environment • Contain the incident • Gather initial impact information • Identify critical recovery priorities	• Completion of most, if not all, life-safety measures • Containment of the threat/hazard • Initial assessment of impacts • Identification of immediate recovery objectives
TRANSITION	• Complete all life-safety operations • Conduct damage assessments • Reestablish lifelines and make repairs to critical infrastructure to allow for safe re-entry to the affected area • Activate Recovery Organization and begin the recovery action planning process	• Damage assessments are largely complete • Lifelines partially or fully reestablished (e.g., power, water, gas) • Critical infrastructure (e.g., roads and bridges) repaired/in the process of being repaired • Key recovery staff positions activated
SHORT-TERM RECOVERY	• Support immediate recovery needs of survivors (e.g., reunification, food, shelter) • To the extent possible, repair and rebuild infrastructure, homes, businesses, and other facilities • Direct recovery activities under an operational Recovery Organization	• Displaced residents are transitioned out of emergency shelters • Property owners and businesses are in the process of repairing and rebuilding • Critical infrastructure is repaired/in the process of being repaired • Operations have been fully transitioned to Recovery Organization
LONG-TERM RECOVERY	• Satisfy the recovery needs of survivors • Continue repair and rebuilding of damaged structures and infrastructure • Develop a long-term Recovery Strategy to build back better	• Residents are back in their homes and businesses are reopened • Community is healthy and more resilient

Pre-disaster and Post-disaster Recovery Planning

Recovery planning is an ongoing process. Application and implementation of this Framework is part of a *pre-disaster* planning process. The Framework and accompanying Recovery Plan Template and Toolkit provide local North Central Texas jurisdictions with guidance to conduct pre-disaster recovery planning. The pre-disaster recovery planning process focuses on bringing community organizations together to better understand their potential role in disaster recovery and establish means for organization, communication, and coordination. A planning process that engages government departments, private-sector partners, and nonprofit organizations *before* a disaster helps organizations coordinate efforts and mobilize quickly to expedite recovery operations once a disaster hits.

While pre-disaster planning and recovery frameworks are developed before the impacts of the disaster are known, several different plans are developed post-incident. Immediately following the disaster, during the response phase, Incident Action Plans are developed to outline response priorities and objectives for the next operational period (often in 12-hour increments). As life-safety issues are resolved, planning objectives shift to short-term recovery activities that cover longer operational periods. Planning during this phase follows the same process as incident action planning but, because the operational periods may cover days or weeks, these short-term recovery plans can be differentiated from response plans by referring to them as Recovery Action

Plans. As more information is gathered on longer-term recovery needs, a Recovery Strategy is developed that outlines the projects and programs to build a "new and improved" community. The sequence and estimated timeline of the various recovery planning phases are illustrated in Figure 4.
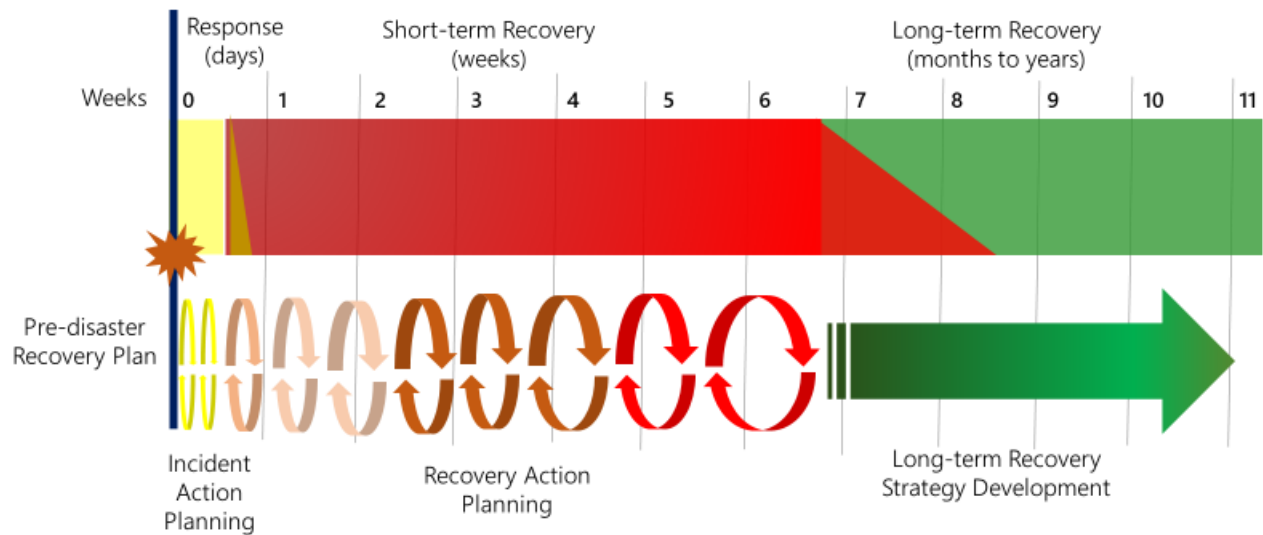
Figure 4: Disaster Recovery Planning Timeline

Figure 4 depicts recovery planning and implementation over time. As the incident shifts from response to short-term and long-term recovery, the operational periods extend. As short-term aspects are addressed, jurisdictions begin to develop long-term planning objectives, known as a Recovery Strategy.

The Recovery Strategy should describe the community's approach to long-term recovery and the projects and programs that achieve long-term goals. The Recovery Strategy should reflect existing community plans, such as strategic and comprehensive plans, economic development plans, capital improvement plans, and hazard mitigation plans. These existing plans represent past research, stakeholder engagement, and decision making that can inform recovery funding decisions. The Recovery Strategy should show the allocation of available recovery funding and resources to promote transparency during the decision-making process. For each project or program, the Recovery Strategy should lay out objectives, a timeline for implementation, the recovery partners involved, and any sources of funding.

III.   Assessing Recovery Capabilities

The U.S. Department of Homeland Security's National Preparedness Goal identifies core capabilities or competencies that are necessary for the timely restoration, strengthening, and revitalization of communities affected by a disaster. These core capabilities must be supported by the whole community, including government, private-sector, and nonprofit recovery partners. FEMA's *Pre-Disaster Recovery Planning Guide for Local Governments* (2017) suggests that assessing a community's current capabilities is a helpful first step. Key recovery core capabilities are explained below, and sample assessment questions are provided.

Planning

The Planning core capability involves carrying out a systematic process of engaging local government and nonprofit and private-sector organizations to develop strategies to meet recovery objectives. This can take the form of pre-disaster and post-disaster recovery plans. To assess this core capability, local jurisdictions can consider the following:

- What existing community plans—e.g., comprehensive plans, special district plans, mitigation plans, economic development plans, and capital improvement plans—may provide strategic guidance for pre- and post-disaster recovery? What departments are responsible for managing these plans, and have they been involved in previous emergency preparedness efforts?

- What local government agencies, private partners, and nonprofit groups might play a role in supporting community recovery? Do they understand how their expertise and daily functions are useful during recovery? Potential partners for recovery can be found in Section V. Identifying Recovery Partners.

- What existing programs and relationships with private-sector and nonprofit organizations can be leveraged for recovery?

- What engagement strategies—e.g., planning meetings, forums, subject-matter expert input—might be effective for bringing potential recovery partners to the table?

Operational Coordination

The Operational Coordination core capability involves establishing and maintaining a unified and coordinated organizational structure and process for integrating all stakeholders into the recovery process. To assess this core capability, local jurisdictions can consider the following:

- Are there clearly defined leadership roles for post-disaster recovery management and decision making?

- Has a Local Disaster Recovery Manager (LDRM) been assigned and given the authority to make decisions regarding recovery? If not, what will be the process for appointing the LDRM post-disaster, and what authorities will be delegated?

- Do recovery partners—including government departments, the private sector, and nonprofit organizations—know how and where to share and receive information on recovery activities in the short- and long-term?

- Does the local government have an organizational structure in place to oversee recovery efforts across the city or county (or region)?

- What mechanisms and processes are in place for the local government to link with state and federal agencies during short-term and long-term recovery?

- How will the local government manage available recovery resources, including technical assistance, subject-matter expertise, and funding?

Public Information and Warning

The Public Information and Warning core capability establishes and maintains a unified approach to providing coordinated, prompt, reliable, and actionable information to the whole community to support recovery. To assess this core capability, local jurisdictions can consider the following:

- Are there existing crisis communications plans, and how do they relate to recovery operations? Who manages the maintenance of those plans, and are they up to date?

- Are there plans and processes in place to disseminate public information if power and communication systems are down?

- Are there local or state emergency management applications or tools that could provide centralized, coordinated recovery information over the long-term?

- Do local departments know how and where to direct information for public release?

- Does the city or county have existing communication channels that are accessible to people with disabilities and others with access and functional needs or with limited English proficiency? Are resources available to provide American Sign Language interpretation, captioning, and computer-assisted, real-time translation?

- Does the city or county have processes or plans in place to ensure information can reach temporarily displaced residents?

Economic Recovery

The Economic Recovery core capability involves returning economic and business activities (including food and agriculture) to a healthy state and developing new business and employment opportunities that result in an economically viable community. To assess this core capability, local jurisdictions can consider the following:

- What existing economic development plans can help guide future development decisions post-disaster?

- What local economic advisory boards, chambers of commerce, or other organizations that interface with local businesses are active in the community?

- What are the primary industries and employers on which the local economy depends, and do they have disaster recovery and continuity plans in place?

- Does the local government have established relationships with large employers in the area? What types of resources could those companies offer during recovery (e.g., equipment and equipment operators, warehouse space, staging areas)?

- What services, such as training or referral programs, does the local government offer that could help workers seek employment? What local NGOs provide these services?

Health and Social Services

The Health and Social Services core capability involves restoring and improving health and social services capabilities and networks to promote the resilience, independence, health (including behavioral health), and well-being of the whole community. To assess this core capability, local jurisdictions can consider the following:

- What services and programs—e.g., mental health and crisis counseling—does the local government offer city and/or county employees and the public to cope with crisis situations and access public health information and resources?

- What local nonprofit organizations have programs and services to support families, children, seniors, people with disabilities, and others with access and functional needs? Have they been engaged in emergency planning with the local government? Do they understand how their services and programs may be important to disaster survivors?

- What local organizations are involved in managing donations, including collection, sorting, storing, transporting, and distributing commodities? Have these organizations helped coordinate donations in a disaster situation in the past? Do they have regional and nationwide chapters that are well-versed in recovery operations?

- What local organizations are involved in coordinating volunteers to provide services and programs that could help residents recover? Have these organizations helped coordinate volunteers in a disaster situation in the past? Do they have regional and nationwide chapters that are well-versed in recovery operations?

Housing

The Housing core capability involves implementing housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience. To assess this core capability, local jurisdictions can consider the following:

- Are there processes and procedures in place for conducting damage assessments of residential areas and collecting and maintaining damage assessment information?

- What government department or outside agency is responsible for managing emergency shelters? What organization is responsible for managing family reunification efforts?

- Do existing ordinances allow for placement of modular homes and other temporary structures on homeowners' property?

- Have local hotels or motels been used as disaster housing in the past? In past disasters, has there been coordination between the local government and area hotels to identify available vacancies?

- What services and programs does the local government provide to support housing for low-income residents?

- What NGOs are active in the community to support housing affordability and advocate for people experiencing homelessness?

Infrastructure Systems

The Infrastructure Systems core capability involves stabilizing critical infrastructure functions, minimizing health and safety threats, and efficiently restoring and revitalizing systems and services to support a viable, resilient community. To assess this core capability, local jurisdictions can consider the following:

- What government department is responsible for debris management? Does the jurisdiction have agreements in place with pre-identified contractors to handle debris?

- What processes and procedures are in place for conducting damage assessments of publicly-owned infrastructure such as roads and bridges? What expertise will be required to conduct assessments? Does the local government have the staff with the required expertise, or will outside contractors be necessary?

- Does the local government have coordination mechanisms in place to work with private utility providers? Have these providers been involved in emergency response planning and other emergency management efforts?

- What publicly-owned facilities such as stadiums, fairgrounds, and jails need to be assessed and repaired if damaged during an incident? Do these facilities have pre-approved vendors who can complete repairs?

Natural and Cultural Resources

The Natural and Cultural Resources core capability involves protecting natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore these resources consistent with post-disaster community priorities and best practices and in compliance with applicable environmental and historic preservation laws and executive orders. To assess this core capability, local jurisdictions can consider the following:

- Has the jurisdiction identified sensitive ecological areas? What processes are in place to assess damage to those areas? Does the jurisdiction have the expertise and capabilities to evaluate environmental damage, or are outside contractors necessary?

- What local department is responsible for coordinating with state and federal environmental regulatory agencies?

- What cultural sites, monuments, or buildings make up the fabric of the community? Who would be responsible for assessing damage and coordinating repairs? Are there historic preservation guidelines that must be considered?

- What facilities (e.g., libraries, community centers) and public spaces (e.g., parks, recreation fields) serve as gathering places for the community? Could they be used to host outreach events or other activities for recovery?

IV.   Building a Recovery Organization

A key outcome of pre-disaster recovery planning is establishing a mechanism for coordination among recovery partners. This section presents the recommended organizational structure, shown in Figure 5, that aligns with the principles of the National Incident Management System (NIMS), the Incident Command System (ICS), and national and international best practices. This organizational structure facilitates the transition from Emergency Operations Center (EOC) operations, is flexible to changing recovery needs, and supports vertical integration with federal Recovery Support Functions (RSFs).
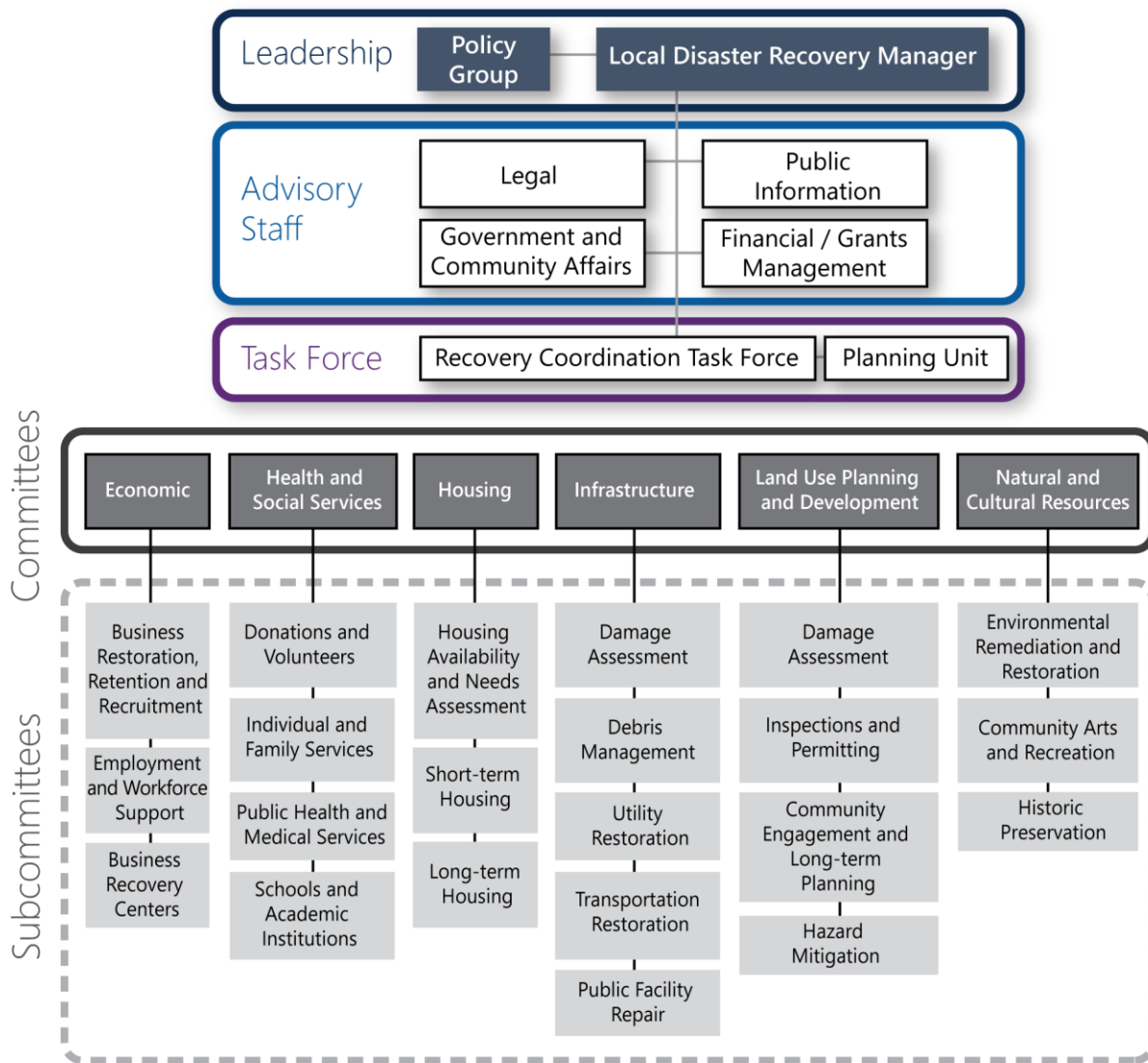
Figure 5: Recovery Organizational Structure Components

Recovery Staffing

During recovery, public, private, and NGO staff apply their day-to-day duties and expertise to support recovery efforts. However, staff roles in the Recovery Organization differ from daily roles because their services and expertise will be in higher demand and may be in scarce supply and urgently needed by disaster survivors. Government staff and NGOs may not recognize their potential role in recovery. These roles are discussed in detail in Section V. Identifying Recovery Partners. A summary of Recovery Organization staff, responsibilities, and potential individuals to fill those roles is illustrated in Error! Reference source not found..
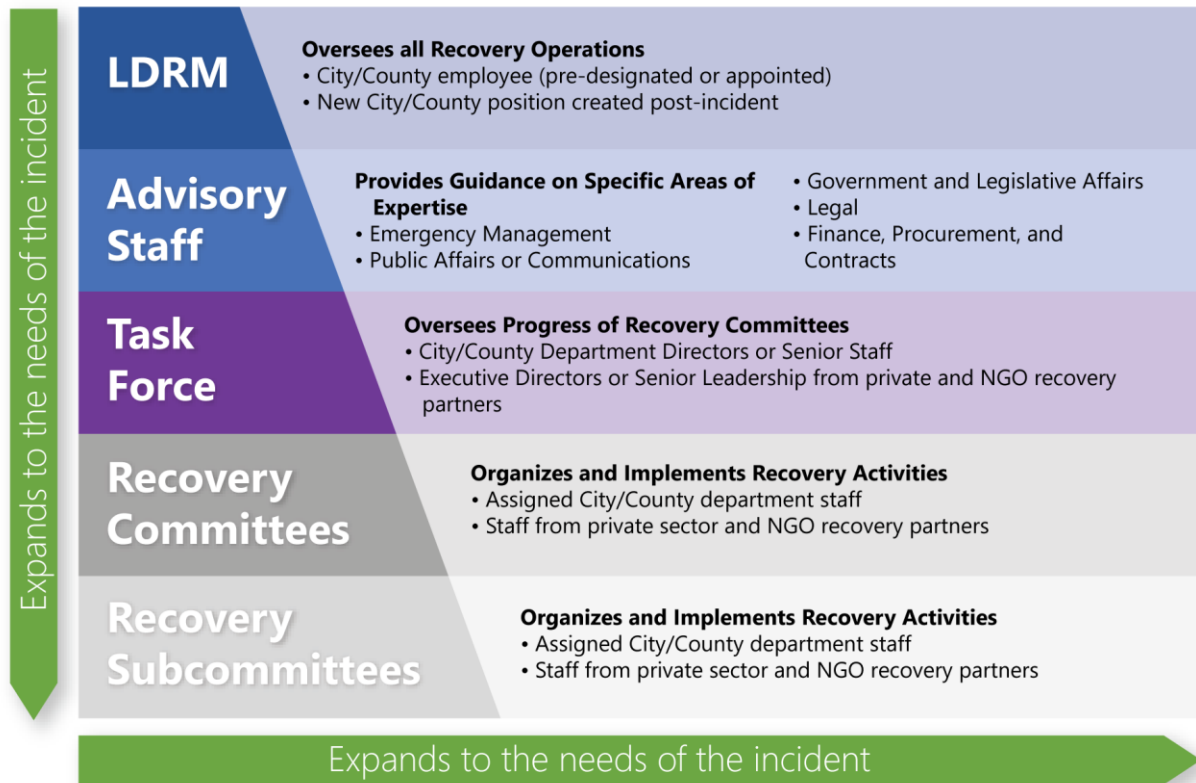
Figure 6: Staffing the Recovery Organization

Recovery Leadership

Local Disaster Recovery Manager (LDRM)

The LDRM directs all recovery activities within the purview of the jurisdiction. It is recommended that the LDRM be identified during the pre-disaster recovery planning process.

Often, the local emergency management director or designee initially fills the role of the LDRM. Emergency managers are familiar with the initial needs of recovery to reestablish lifeline and critical services and the state and federal coordination mechanisms for managing recovery resources. Emergency management staff who have coordinated planning efforts and real-world disaster response can leverage their relationships with other government, private-sector, and NGO partners to coordinate recovery efforts. In addition, having an emergency manager fill the LDRM role frees up elected officials and city and/or county management to focus on policy decision making and continuity of essential government operations.

As activities shift into the long-term recovery phase and focus on development and implementation of a long-term recovery strategy, the LDRM role may be transitioned to another department head or city/county manager staff. This transition may be appropriate if there is specific subject-matter expertise or political support needed to address long-term issues. The LDRM must advise local leadership to make difficult determinations on recovery priorities and allocation of resources, which can at times be contentious. The LDRM should therefore have strong pre-existing relationships with local officials and government departments; an understanding of the social and economic challenges within the community; and an understanding of political sensitivities and varying stakeholder interests.

The LDRM is tasked with the following responsibilities:

- Serving as the primary point of contact for disaster recovery with regional jurisdictions and state and federal agencies

- Recruiting, assigning, and managing recovery staffing

- Facilitating effective decision making and coordination for recovery objectives and activities

- Establishing and maintaining contacts and networks for disaster recovery resources and support systems

- Communicating recovery priorities and needs to state and federal governments and other stakeholders and supporters

- Aggressively driving fundraising through grant-seeking and innovative partnerships with the business and nonprofit communities

- Ensuring effective administration and oversight of finance-acquisition and grants-management processes

- Leading development of community recovery initiatives to ensure that they are publicly supported, actionable, and feasible based on available funding capacity

- Ensuring inclusiveness in the community recovery process, including with regards to persons with disabilities and others with access and functional needs and those with limited English proficiency

- Fostering information sharing and developing recovery progress measures to communicate to stakeholders and authorities

- Providing status updates to the Policy Group and generating progress reports to share with local officials

Policy Group

The Policy Group comprises elected and appointed officials, which may include the Mayor, County Commissioners, the City Manager, or the County Manager. These individuals maintain full authority to direct recovery objectives and oversee policy changes to facilitate recovery operations. This Group oversees the Recovery Organization and works directly with the LDRM to monitor recovery progress.

Advisory Staff

Public Information

The Public Information group develops and disseminates recovery-related information, including responding to media inquiries and disseminating validated information through print, radio, television, email, social media, and other channels. This group works in conjunction with the Joint Information System (JIS)/Joint Information Center (JIC), if active.

Financial and Grants Management

The Financial and Grants Management group oversees procurement, recovery costs documentation for reimbursements, and recovery grants administration. Documentation of the procurement process and accounting for services, supplies, equipment, and staff time are paramount both during response and recovery. It is important that this unit be staffed with city or county finance department personnel who understand the policies and protocols related to the fund balance, procurement, contracting, and timekeeping. This unit is responsible for centralizing record keeping and documentation of everything that is purchased (including why and how it was purchased) and all staff costs (including the purpose of staff). Jurisdictions should develop their documentation policies, procedures, and systems pre-disaster and train and exercise staff.

The staff in this role also need to understand FEMA procedures for public and individual assistance or quickly familiarize themselves with this knowledge in order to work with FEMA throughout the reimbursement process. Depending on the size of the recovery, it may be necessary to create coordinator positions to oversee public assistance, individual assistance, and/or grants writing. When possible, training in FEMA procedures should be conducted in advance.

Legal

The Legal group, which includes the city or county attorney and any necessary supporting staff, provides legal advice and assists in drafting and reviewing any policy changes, contracts, and other documentation as requested by the LDRM. Documentation of recovery activities is essential to help protect the jurisdiction from liability for damages or actions associated with disaster operations.

Government and Community Affairs

The Government and Community Affairs group provides consultation to the LDRM and members of the Recovery Coordination Task Force regarding local, state, and federal policy issues related to recovery. This group is also responsible for facilitating information exchange between the Recovery Organization and community groups to better understand the needs and concerns of the community. This includes coordinating public forums and public surveys and overseeing any local recovery information centers.

Recovery Coordination Task Force

The Recovery Coordination Task Force comprises designated representatives of each activated Committee who help develop Committee objectives and oversee Committee activities. The LDRM will convene the Task Force on a regular basis to share information, coordinate efforts, track progress, and evaluate priorities. Local government and nongovernmental recovery partners may participate in the Task Force at varying times during short-term and long-term recovery depending on the circumstances.

Planning Unit

The LDRM will appoint one or more Planners to the Task Force who will be responsible for documenting meeting minutes, updating Recovery Action Plans, and gathering information for development of the long-term Recovery Strategy.

Recovery Committees and Subcommittees

Recovery Committees and Subcommittees are made up of government departments, private-sector partners, and NGOs that carry out recovery activities in their respective areas. Each Committee addresses a "recovery area" and each Subcommittee addresses a "critical function" within that recovery area.

Many city, county, and state pre-disaster recovery plans organize efforts according to the six recovery areas, referred to as RSFs in the NDRF. Federal RSFs include Community Planning and Capacity Building, Economic Recovery, Infrastructure Systems, Health and Social Services, Housing, and Natural and Cultural Resources. The NDRF is considered guidance, and jurisdictions may modify RSFs as they see fit. Categorizing recovery activities by subject area provides a clear, effective, overarching organizational method. Recovery areas can be broad and encompass many potential activities. For instance, "health and social services" can range from distributing food donations to providing information on mold remediation. Thus, these recovery areas can be further divided into critical functions or focus areas that are frequently addressed during recovery.

The six recovery areas included in this Framework and associated critical functions are shown in Table 3. The mission, stakeholders, and actions that can be taken during the preparedness phase, short-term recovery, and long-term recovery to support each of the recovery areas and critical functions are described in detail in Section VI. Anticipating Recovery Actions: Recovery Area Annexes.

Table 3: Recovery Areas and Critical Functions

Recovery Area	Committee Mission	Subcommittee Critical Functions
Economic	Restore and retain businesses and employment and generate economic development opportunities for the community	• Business Restoration, Retention, and Recruitment • Employment and Workforce Support • Business Recovery Centers
Health and Social Services	Restore health systems and provide social services to improve the well-being of individuals and families affected by the disaster	• Donations and Volunteers • Individual and Family Services • Public Health and Medical Services • Schools and Academic Institutions
Housing	Develop strategies for realistic, accessible, and affordable temporary and long-term housing options for those displaced from their homes	• Housing Availability and Needs Assessment • Short-term Housing • Long-term Housing
Infrastructure	Repair and restore infrastructure and essential services and improve resiliency of infrastructure systems to future disasters	• Damage Assessment • Debris Management • Utility Restoration • Transportation Restoration • Public Facility Repair
Land Use Planning and Development	Oversee repairs, rebuilding, and reconstruction of homes, businesses, and community assets and engage the community in developing long-term recovery strategies that improve community resilience	• Damage Assessment • Inspections and Permitting • Community Engagement and Long-term Planning • Hazard Mitigation
Natural and Cultural Resources	Restore natural areas and cultural assets to their pre-disaster condition and improve resiliency to future disasters	• Environmental Remediation and Restoration • Community Arts and Recreation • Historic Preservation

Disaster Recovery Office

Small-scale recovery efforts can be handled out of staff's home offices. Larger catastrophic incidents may involve participation from dozens of departments and organizations over months or years. For larger, more complex recovery efforts, a physical recovery office may be beneficial. This offers a space where full-time and part-time city or county staff can collaborate with other agencies, private partners, NGOs, and contractors. The LDRM oversees the operation of the recovery office and manages all staff. A recovery office can be established at the city, county, or regional level at any time during the recovery, depending on the situation and the resources available. Recovery offices may be co-located with the Community Resource Center (i.e., community-based recovery information center) and/or the Joint Field Office.

Activation of Recovery Organization

The LDRM, in consultation with the Recovery Coordination Task Force, determines which Committees are activated. For smaller incidents, activated Committees may take on the functions of Subcommittees. In targeted incidents, only a subset of Committees may be activated. Likewise, catastrophic disasters may result in the activation of all Committees and Subcommittees. The organizational structure is meant to be flexible and adaptable depending on the needs of the incident. Below are two examples demonstrating the flexibility of the Recovery Organization.

- The day after a mass shooting at city hall, the LDRM activated the Health and Social Services Committee, which began to recruit staff from city and county social services and public health departments, local hospital networks, the Red Cross, and the local Voluntary Organizations Active in Disaster (VOAD) and its members. The LDRM activated the Legal group to manage resulting legal issues and the Public Information group to handle media inquiries and prepare elected officials for interviews. The Government and Community Affairs group was assigned to coordinate with state and federal agencies, and the Financial and Grants Management group worked with the Mayor's office to establish a victims' assistance fund. All staff worked from their home offices, and senior representatives from Social Services, Public Health, VOAD, and the Red Cross served on the Recovery Coordination Task Force. The LDRM held daily Task Force briefing calls with local officials.

- Response operations for a gas explosion affecting several businesses in the downtown district overnight were resolved within 18 hours. The next day, recovery objectives focused on providing information to the public about the incident and downtown road closures, coordinating debris removal, and supporting affected businesses and employees. The Public Information group continued to push out information related to the incident and road closures to local media. The LDRM activated the Economic Committee, comprising staff from the City Department of Economic and Workforce Development, the local Chamber of Commerce, and the City Small Business Task Force. The Economic Committee worked with the Government and Community Affairs group to develop outreach materials for impacted businesses and create a page on the city website to link to recovery resources. The Infrastructure Committee was led by the City Department of Public Works, which oversaw the debris-removal contractor's work. City Transportation also provided a representative to the Infrastructure Committee to monitor road closures and bus system impacts. A representative from the gas company joined the first two daily Recovery Task Force conference calls to provide information on their recovery operations and mitigation measures.

Transitioning from Response to Recovery

The EOC is the coordination hub for response operations. Many jurisdictions have done significant emergency planning and have current Emergency Operations Plans (EOPs) in place. However, a large-scale incident can cause cascading impacts, and the EOC's continued focus on response priorities may stall recovery progress. The transition phase represents the period of time, usually days to weeks, when command of operations, information and situational awareness, and coordination staff are shifted from the EOC to the Recovery Organization.
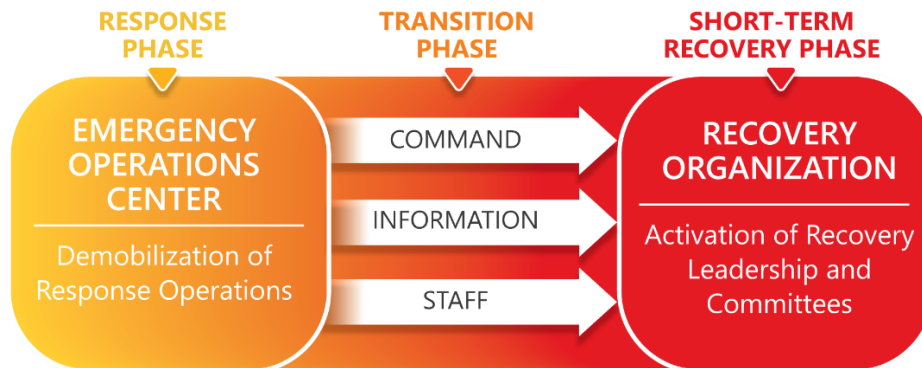
Figure 7: Emergency Operations Center Transitions to the Recovery Organization Over Days or Weeks

As response efforts wane, the EOC structure begins to deactivate and the Recovery Organization ramps up. The timing and duration of the transition phase varies depending on the incident, but some key activities that the EOC begins to transition to the Recovery Organization during this phase include the following:

- Tracking, managing, and filing all incident-related costs and decision-making documentation
- Collecting and analyzing data and information such as GIS maps
- Assembling damage assessment information to build a case for obtaining federal assistance

Activities that the Recovery Organization often prioritizes during the transition phase include the following:

- Convening Recovery Leadership to activate Recovery Organization staff
- Liaising with state and federal officials to initiate the Preliminary Damage Assessment (PDA) process and eligibility for federal assistance
- Establishing a Community Resource Center(s)
- Developing public outreach and messaging related to available recovery assistance
- Identifying short-term recovery objectives and initiating the recovery action planning process

Whether an EOC follows the ICS structure, emergency support function (ESF) structure, departmental structure, or a hybrid structure, recovery can be integrated into the EOC organization. Cities and counties can consider using the strategies in Table 4 to help integrate recovery efforts into EOC operations early and put mechanisms in place to successfully facilitate a smooth transition from the response phase into recovery.

Table 4: Transition Strategies for Shifting Operations from the Emergency Operations Center to Recovery Organization

Transition Strategy	Purpose	Benefits
Embed the LDRM in the EOC	The LDRM manages and oversees recovery efforts. It is crucial for this individual to be aware of the progress and challenges of the incident response and to look ahead to recovery operations. The LDRM can be assigned to the Multi-agency Coordination (MAC) Group, Policy Group, or other advisory role if he/she is not already assigned a key position in the EOC.	• Continuity of decision making • Improved situational awareness • Early identification of recovery staffing and resource needs
Embed a Recovery Transition Unit in the EOC	A Recovery Transition Unit can gather and monitor damage assessment information that can inform recovery objectives. This Unit can be added to the Planning Section, or the role can be assigned to an ESF or department. This group is forward-leaning and recommends mobilization of recovery staff and resources while the EOC is activated, if necessary.	• Improved situational awareness • Early identification of recovery staffing and resource needs
Transition key EOC staff to the Recovery Organization	Experienced EOC staff, such as section chiefs, PIOs, and division directors, can bring their knowledge of the situation and experience managing incidents to support key roles in the Recovery Organization.	• Continuity of operations
Activate Recovery Committees and Subcommittees as soon as necessary	The more lead time recovery partners have to begin organizing efforts, the more potential they have for success. The LDRM and/or the Recovery Transition Unit can recommend that the EOC Director activate Recovery Committees to begin short-term recovery as response efforts wane.	• Faster mobilization of resources • Reduced duplication of effort

By the transition phase, the local government should already have declared a local emergency. Emergency managers are often responsible for drafting a proclamation of emergency or disaster and ensuring compliance with governing authorities and laws that are associated with proclamations. The Texas Division of Emergency Management provides detailed steps to declare a disaster and ensure eligibility for federal assistance; a sample local proclamation letter and a sample emergency declaration letter to the Governor are available in the _Texas Emergency Management Executive Guide_.

The steps for requesting assistance under the Stafford Act include completing a preliminary damage assessment (PDA) in coordination with FEMA and federal and state representatives to document impacts and establish a basis for the Governor to request assistance. Once the Governor requests assistance, FEMA reviews the request and makes a recommendation to the President, and, if warranted, the President issues a declaration so that assistance is made available under the Stafford Act. In this process, the local government's role is to gather comprehensive and accurate damage assessment data and coordinate effectively with state and federal partners to document this information.

Case Study: Recovery Organizations

The recommended Recovery Organization structure for North Central Texas does not include traditional ICS operations, planning, logistics, and finance and administration sections often found in the traditional ICS–based EOC structure.

Some jurisdictions, such as Brantley County, Georgia, retain the ICS structure while others do not, such as Seattle, Washington. (Figure 8 and Figure 9). Either approach works as long as the roles and functions of the sections are absorbed by the Recovery Organization.

During response, the Operations section coordinates execution of tactics in fulfillment of the Incident Action Plan. As life-safety issues are resolved, the Operations section shifts focus to completing critical short-term recovery operations such as restoring essential lifelines. The Operations section remains activated until critical response and short-term recovery operations are complete and remaining recovery issues can be transitioned to the appropriate Committee. Ensuring that Recovery Action Plans are executed then becomes the responsibility of the Recovery Coordination Task Force.

During response, the Planning section collects, evaluates, and disseminates information and develops situational reports and Incident Action Plans. The Planning section remains active until the Committees are established and begin setting recovery objectives, identifying tactics, and carrying out activities. The planning function then transitions to the Planning unit embedded in the Recovery Task Force. This Planning unit aggregates information from the Recovery Task Force and manages the Recovery Action Planning process.

During response, the Logistics section provides support needs to the incident site; fulfills resource requests; and provides facilities, supplies, and services. During the transition, the Logistics section coordinates establishment of the Recovery Office (if deemed necessary). The logistics function then transitions to the LDRM, who delegates those tasks in turn to appropriate administrative staff.

During response, the Finance and Administration section oversees financial and administrative tracking of personnel and equipment costs and manages procurement and contracting. This section operates until these responsibilities can be transitioned to the Financial and Grants Management group.

References

Brantley County, Georgia (2015). *Brantley County Disaster Recovery and Redevelopment Plan: Base Plan*. Accessed online February 21, 2020.

Seattle Office of Emergency Management. (2015). *City of Seattle Disaster Recovery Framework*. Accessed online February 21, 2020.

Sample Recovery Organization Structures
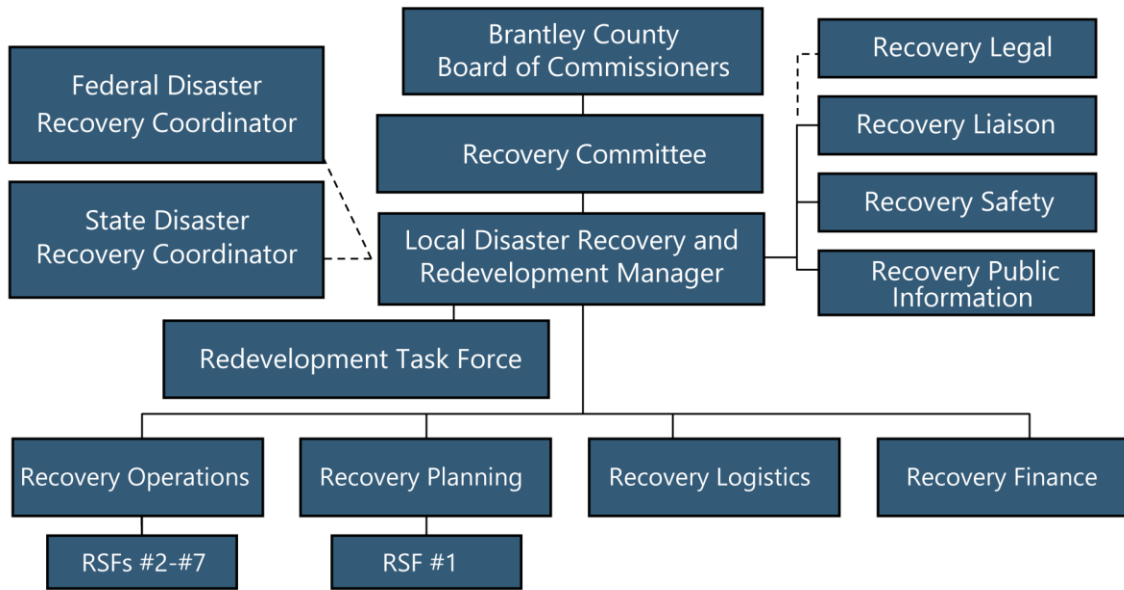

Figure 8: Brantley County, Georgia, Recovery Organization

Brantley County RSFs include Community Planning and Capacity Building, Economic Development, Health and Social Services, Community Development, Planning, and Housing, Infrastructure Systems, Natural and Cultural Resources, and Voluntary Organizations Active in Disasters.
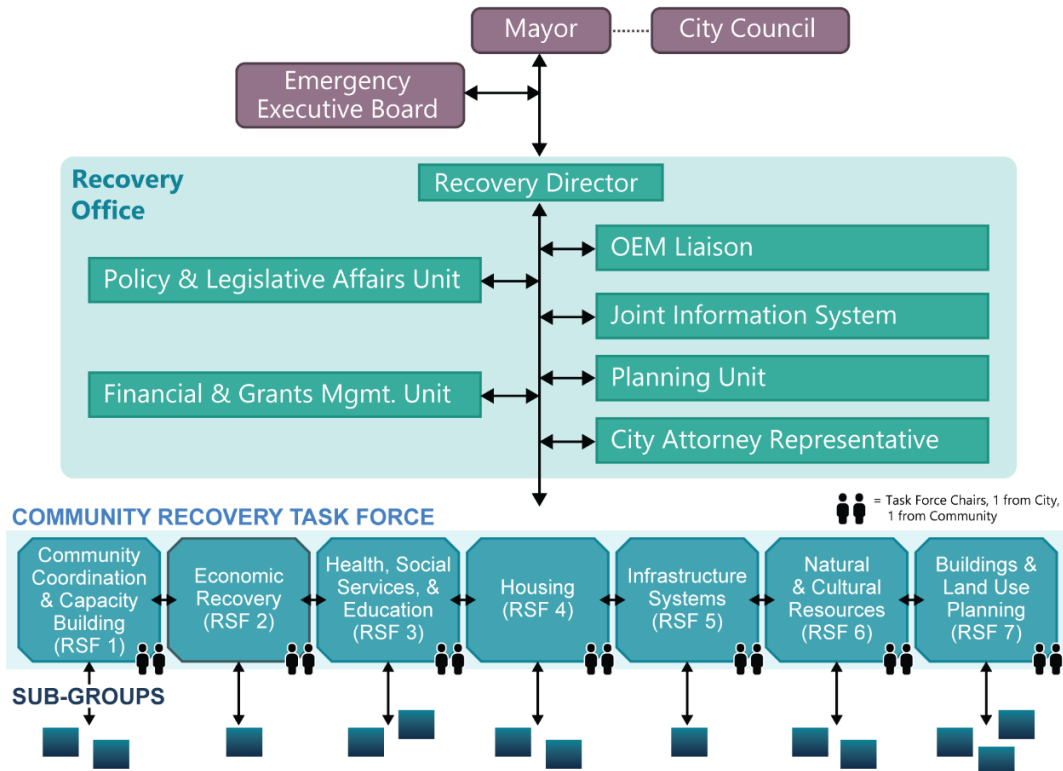
Figure 9: Seattle, Washington, Recovery Organization

Regional Coordination

Often, disasters are not isolated to a single jurisdiction. Catastrophic disasters can cross jurisdictional boundaries and affect regions and multiple states. Regional coordination is an important aspect of disaster recovery because it is likely that any local jurisdiction, no matter how well-resourced, will need outside assistance to recover from a major disaster. Management of response resources is a process that many local jurisdictions have planned for and tested, but once EOCs are deactivated and short-term recovery objectives are met, this coordination can sometimes be neglected. When recovery lasts months or years, there are many opportunities for collaboration between jurisdictions that can save time and money for all partners. Implementing this Framework and establishing a consistent approach to recovery across the North Central Texas region will allow for enhanced information sharing, resource management, and decision making in the months and years following a disaster.

The North Central Texas region's consistent approach to recovery ensures that each affected jurisdiction establishes an LDRM to oversee all recovery operations. Bringing all LDRMs to the table to create a formal Regional Coordination Committee gives them the opportunity to share progress of recovery projects and programs and identify potential opportunities for collaboration. For North Central Texas jurisdictions that are not affected by the event, a representative may be designated to attend Regional Coordination Committee meetings for situational awareness. Particularly for long-term recovery, the Regional Coordination Committee provides a mechanism for continued information sharing and resource coordination.

Community Resource Centers

Following a federally declared disaster, FEMA will set up a Disaster Recovery Center (DRC) in the affected area. The DRC is a temporary facility or mobile office where survivors may apply for federal disaster assistance, learn about FEMA programs, and ask questions about disaster assistance and low-interest disaster loans for homeowners, renters, and businesses. While this is a helpful resource for the community, the DRC is only temporary, and having a physical information center could be valuable over the long-term depending on the situation.

A city or county may want to consider opening a local Community Resource Center to serve as a location for survivors to get important information about available assistance. A Community Resource Center may be helpful in the weeks before FEMA arrives, may be merged or co-located with the FEMA DRC while it is active, and/or could be a way to continue providing the functions of the DRC after FEMA leaves. These Centers may help centralize city and county disaster-related services and relieve some of the burden from local departments. For instance, the Community Resource Center could provide information to homeowners about permitting processes and proper contractor licensing requirements to relieve some of the burden from the development services center. Likewise, the Community Resource Center could provide information about how to apply for social programs so that the Department of Social Services does not have a surge of walk-in requests. The Community Resource Center is also an opportunity for NGO recovery partners to provide direct communications and services to the public. Organizations can share information about current cleanup programs, donation procedures, volunteer efforts, public transportation, and other information through the Community Resource Center.

Case Study: Establishing a Hub for Recovery Information

Once a disaster has been federally declared, FEMA will set up a DRC. This is where affected individuals may come for information on applying for public assistance, possibly meet with their insurance company, and start the process of vital document replacement. The DRC may not be established for weeks after the disaster. What can local emergency managers do in the meantime? Many jurisdictions in California that experience repeated disasters have developed plans for Local Assistance Centers (LACs).

The California Governor's Office of Emergency Services (Cal OES) created the *Guide to Establishing Local Assistance Centers* in 2003 and updated it in 2013. A LAC is staffed with representatives from local, state, and federal agencies as well as nonprofits and faith-based organizations with resources available. The mission is "to assist communities by providing a centralized location for services and resource referrals for unmet needs following a disaster or significant emergency." The LAC location is selected by the local government, and the state is responsible for coordinating participation from state and federal agencies. The LAC is intended to be a "one-stop shop" for those affected by an emergency to collect information, learn about available resources, replace vital documents, etc. Once FEMA arrives (in the event of a federally declared emergency) the LAC will transition into a DRC. Many jurisdictions in California use the LAC model for any emergency affecting county residents.

In October 2015, Porter Ranch (a community within Los Angeles) experienced a large-scale natural gas leak. More than 8,500 households were evacuated for more than 100 days as people complained of nosebleeds, headaches, and respiratory issues. The City of Los Angeles decided to open a LAC to provide a centralized location for residents and businesses to access information, programs, and services. The Los Angeles Emergency Management Department managed the center and coordinated with the Recreation and Parks department, which provided the facility and supported the logistics. The center offered a wide range of services including information on potential refunds related to disruption of city services, updates from the Los Angeles County Office of the Assessor regarding relocation, disaster relief available, and access to mental health services. The Los Angeles County Department of Public Health also participated to provide information on the health effects of the natural gas. The Los Angeles Emergency Management Department established a Recovery Coordination Center at the EOC to facilitate coordination between government and nongovernment agencies throughout the recovery process.

References

California Governor's Office of Emergency Services (2003). *A Guide for Establishing a Local Assistance Center*. Accessed February 21, 2020.

Office of Mayor Eric Garcetti (2016). City of Los Angeles to lead recovery efforts after end of Aliso Canyon Leak. Accessed online February 21, 2020.

V. Identifying Recovery Partners

Understanding community stakeholders' potential role in recovery is central to the pre-disaster planning process. Many organizations will want to be involved, and it is important to make the most of these diverse resources. Most critical disaster recovery functions rely on stakeholders outside local government, such as businesses, nonprofit organizations, residents, and religious organizations. These groups provide important services to the community on a day-to-day basis, and their expertise, staff, and resources could be in short supply during recovery.

Building relationships among local government and private and nonprofit partners during the pre-disaster phase can help ensure that organizations understand their roles and feel comfortable working together. Partnership networks also create opportunities to explore innovative strategies to "build back better" following a disaster.

This section provides a list of government, private-sector, and nonprofit organizations and examples of their potential contributions to community recovery (Table 5, Table 6, and Table 7). As local jurisdictions develop pre-disaster recovery plans, these stakeholders should be brought to the table to identify the specific roles and resources they bring to bear, which may differ from those listed below.

Local Government

Local government staff assume leadership roles during recovery and may be given part-time or full-time assignments to work on recovery programs and projects. They often take the lead in identifying and organizing nongovernment recovery partners to coordinate the efficient use of all available resources. Many of the departments listed below will lead Recovery Committees and Subcommittees. Table 5 presents the potential role each department may have in recovery based on their daily functions and expertise. Section VI. Anticipating Recovery Actions: Recovery Area Annexes suggests which departments could serve as lead and support organizations for each Recovery Committee.

Table 5: Local Government Recovery Partners

Local Government	Potential Role in Disaster Recovery
Community Development	- Work with developers and community housing development organizations to support safe and efficient housing and neighborhood recovery. - Support programs to retain residents. - Support identification of affordable temporary and long-term housing options. - Propose affordable housing investments and grant funding allocations for recovery. - Provide programs and services to support people experiencing homelessness.
Economic Development	- Provide information and referrals for financial resources and technical assistance providers (e.g., Small Business Administration (SBA) disaster resources, small business development centers, university entrepreneur services, etc.). - Provide services and information to job seekers (e.g., career development and counseling, specialized employment services, re-employment services, unemployment insurance benefits guidance, training programs, hiring and recruitment, resume assistance).

Local Government	Potential Role in Disaster Recovery
	• Disseminate recovery information to local businesses through available channels. • Ensure local economic development plans are considered during recovery.
Elected Officials and City/County Management	• Set recovery priorities. • Approve changes to policies to expedite recovery. • Make decisions on recovery funding allocations. • Serve as the "face" of the recovery effort by communicating directly with residents and businesses to reassure them and keep up morale.
Emergency Management	• Manage EOC operations and oversee the transition to the Recovery Organization. • Staff key Recovery Organization positions (e.g., LDRM, Planning Unit in the Recovery Task Force). • Provide support to damage assessment teams. • Provide situational reports and damage assessments to TDEM and the Texas A&M University System. • Coordinate and maintain files of all initial assessment reports. • Collaborate with state and federal recovery partners to coordinate resources. • Support content development for public outreach via websites, social media, publications, and events. • Contribute to development of long-term recovery strategy. • Coordinate development of after-action reports.
Engineering	• Support damage assessments of local infrastructure (e.g., roadways, drainage and flood control facilities, water and wastewater facilities). • Support repairs to damaged infrastructure (e.g., roadways, drainage and flood control facilities, water and wastewater facilities).
Finance	• Distribute information to government departments on proper disaster cost-documentation procedures. • Accept, review, manage, and file all disaster cost documentation to ensure eligibility for reimbursement. • Coordinate purchasing and procurement for recovery projects. • Ensure all contract solicitation processes adhere to federal and state rules during disaster declarations. • Manage administration of post-disaster grants and financing. • When requested, generate and provide copies of all financial documents or reports (pay sheets, checks, etc.) regarding damage and expenditures. • Assist with any state or federal audits.
General Services/ Facilities Management	• Assess damage to public facilities. • Coordinate repairs and reconstruction of damaged public facilities. • Maintain repair and maintenance vendor lists. • Execute pre-disaster contracts as needed.
Human Resources	• Provide information to government employees on available sponsored counseling, financial information and resources, and legal support that may be helpful for their personal recovery.
Media Relations	• Respond to media inquiries and conduct press briefings.

Local Government	Potential Role in Disaster Recovery
	- Gather, develop, and disseminate information on recovery progress and activities. - Support website, social media, and other available public information outlets. - Liaise with local, regional, state, and federal recovery partners to coordinate messaging and provide additional methods of outreach to disaster survivors.
Parks and Recreation	- Assess damage to parks and recreation spaces and facilities. - Coordinate cleanup, repair, and reopening of local parks, trails, athletic fields, and community recreation centers. - Leverage department resources (e.g., facilities and programs) to provide recovery information and outreach to the community. - Explore options to provide use of park space and community centers for recovery activities (e.g., temporary sheltering for displaced animals, donation storage and distribution, public meetings).
Permitting and Inspections	- Support damage assessment activities. - Prioritize and expedite permitting. - Ensure compliance with applicable building codes and zoning ordinances. - Provide certified building inspectors. - Request contract inspectors or hire additional staff if the situation warrants. - Conduct inspections of rebuilding and new construction projects. - Issue certificates of occupancy. - Provide information to homeowners regarding contractor licensing requirements and proper permitting processes.
Planning and Zoning	- Make recommendations regarding land use policy decisions, including: - Moratoria related to development, construction, and permits; - Policy changes to allow for repairs to reconstitute existing structures; - Policy changes to allow placement of temporary modular or manufactured housing on homeowner property; and - Coordination of conservation easements, fee-simple purchase, and other voluntary land-protection methods. - Ensure existing land use plans are considered during recovery, including strategic and comprehensive plans, neighborhood and special district plans, transportation plans, economic development plans, and capital improvement plans. - Provide information regarding development and/or permitting processes to homeowners and developers. - Support integration of hazard-mitigation measures into rebuilding efforts. - Direct long-range planning processes and community engagement for recovery.
Public Health	- Develop public information and outreach materials for disaster-related health impacts. - Support disease surveillance activities and coordinate with state and federal agencies. - Conduct Health Department inspections of affected restaurants. - Conduct community needs assessments to determine populations at risk for injury, illness, and death during the recovery phase. - Support access to mental health services and crisis counseling by providing information and referrals.

Local Government	Potential Role in Disaster Recovery
Public Works	• Assess damage to local government-owned infrastructure (e.g., roadways, drainage and flood control facilities, water and wastewater facilities). • Open and close roads in coordination with law enforcement. • Coordinate and oversee repairs to damaged infrastructure (e.g., roadways, drainage and flood control facilities, water and wastewater facilities). • Activate pre-disaster debris management contract(s) or procure debris management services. • Oversee debris removal, storage, recycling, and disposal. • Oversee debris management cost documentation for reimbursement.
Social Services	• Ensure continued operations of state- and federal-mandated programs. • Refer survivors to available mental and behavioral health services. • Provide support services (e.g., transportation, medication assistance) and referral services to vulnerable populations, including low-income residents and persons with disabilities and others with access and functional needs. • Provide information on financial support available to assist with personal recovery, including childcare, food and nutrition services, and Medicaid. • Administer crisis funds received from federal and state benefits as a result of a disaster declaration.
Solid Waste	• Assess, characterize, and manage collection of waste. • Establish temporary storage sites for large volumes of household waste, such as e-waste and furniture. • Provide guidance and advice to local authorities on interim solutions to minimize environmental and health impacts of disaster waste. • Provide information to residents on the proper means of disposal for damaged items (e.g., electronics, furniture, construction materials).
Transportation	• Assess damage and oversee repairs of public transit assets. • Oversee resumption of public transit operations. • Modify service routes or schedules as needed. • Communicate to the public regarding status of services. • Ensure regional and local transportation plans are considered during recovery.
Water	• Conduct assessments of water- and wastewater-treatment infrastructure and service. • Carry out existing emergency response plans. • Coordinate necessary repairs to water and wastewater systems, which may include the use of contractors and vendors. • Monitor the potential contamination of the water supply. • Provide notification and information to the public regarding actions that need to be taken, such as boiling water before drinking or using bottled water.

Private Sector

The private sector can offer specialized resources to aid recovery efforts (Table 6). Some common private-sector recovery partners include hospitals and healthcare providers, utilities, and financial institutions. Often, these organizations have abundant resources and can draw from regional, statewide, or national networks. These groups are sometimes overlooked during the pre-disaster recovery planning process, but including them promotes buy-in and builds partnerships that can offer innovative strategies.

Table 6: Private Sector Recovery Partners

Sector	Role in Disaster Recovery
Builders/Developers	• Provide information to support housing needs assessments. • Work with urban designers and landscape-architecture firms to propose sustainable design opportunities for rebuilding efforts. • Secure investments and financing for redevelopment projects.
Finance/Lenders	• Develop programs to provide low-cost loan products for individuals with verifiable disaster-related costs. • Facilitate administration of SBA loans to small businesses and nonprofits (applies to certified SBA lenders). • Coordinate with local, regional, and state partners to identify investment opportunities for recovery programs.
Healthcare	• Coordinate mutual aid, evacuation, and repopulation support for healthcare services. • Ensure safe, efficient continuity of operations and resumption of services. • For mass casualty or mass fatality incidents, provide key information regarding victims to local officials and assist in public information messaging and media releases. • Provide subject-matter expertise for disaster-related health issues.
Hospitality	• Provide temporary housing to displaced populations (e.g., hotels, motels, Airbnb, Vrbo). • Provide occupancy data to support housing needs assessment.
University	• Provide subject-matter experts and technical assistance for recovery activities. • Support research efforts related to local needs assessments.
Utilities	• Coordinate internal response plans to restore services as quickly as possible. • Communicate the scope and expected duration of an outage to the public. • Communicate and coordinate with government officials on the status of recovery operations.

Nongovernmental Organization Recovery Partners

NGO recovery partners span a wide range of fields and offer various resources for a recovery effort. The types of organizations and their resources differ greatly from community to community. A key part of the pre-disaster recovery planning process involves identifying which organizations provide important services to residents and businesses within the community and determining how these services could help disaster survivors.

NGOs have strong connections with local populations that will need their assistance during recovery. Organizations may support seniors, families, low-income residents, and persons with disabilities and others with access and functional needs. Getting important services and resources to these groups will be necessary

to support their personal recovery. NGOs may not recognize their potential role until after a disaster highlights the need for their programs and services. Local governments should build relationships with community-focused NGOs pre-disaster so the relationships are in place to quickly coordinate recovery efforts.

Table 7 provides a general understanding of the various types of NGOs that could play a role in disaster recovery. Local governments should identify the NGOs active in their communities and employ their expertise when developing a pre-disaster recovery plan.

Table 7: Nongovernment Recovery Partners

Group	Role in Disaster Recovery
Affordable Housing Advocacy Groups	• Help identify safe, accessible, and affordable temporary and long-term housing options for affected households, including the lowest-income seniors, people with disabilities, families with children, veterans, people experiencing homelessness, and other at-risk populations. • Ensure transparency and accountability for recovery programs and compliance with civil rights laws and the Fair Housing Act. • Assist renters and those experiencing homelessness before the disaster to obtain quality, affordable, and accessible rental property.
Chamber of Commerce	• Provide a link between businesses and local officials. • Identify available resources and needs from various local businesses. • Provide public information from local officials to businesses via established methods of communication, including email listservs, websites, and newsletters.
Community Foundations	• Reach out to local nonprofit partners to gather information on recovery needs (e.g., need for volunteers, supplies, donations). • Connect local organizations with potential donors by posting affected organizations' recovery needs on foundation website. • If possible, establish and administer a local disaster relief fund.
Community Outreach Organizations	• Provide information on available recovery assistance and services to target populations (e.g., low-income residents, people with disabilities, people with access and functional needs, seniors, children, home-bound populations, those with limited English proficiency). • Use websites, social media, community events, and other engagement channels to amplify recovery messaging to the community. • Solicit input and feedback from community members to ensure their voices are heard and build trust and confidence in the recovery process. • Help improve accessibility to recovery information and services by providing foreign-language translation and American Sign Language interpreters. • Identify recovery services that are compatible with their target audience's value system and relevant to their problems. • Refer individuals to mental health counseling services, employment support, childcare, financial assistance, and other support.
Donations-management NGOs	• Support management of solicited and unsolicited donations from private entities and nonprofit organizations. • Work with case managers, construction and warehouse coordinators, and fundraisers to determine donation needs and solicit, catalog, and distribute donated materials and resources.

Group	Role in Disaster Recovery
	• Develop press releases and donations requests to be sent to the media. • Serve as the main point of contact for donors.
Faith-based Organizations	• Provide emotional and spiritual care to survivors and provide information for self-care, coping mechanisms, and how to find help. • Initiate worship services and commemorative events to promote healing. • Organize volunteer efforts to help individuals and families, such as muck cleanup, feeding, housing, child care, transportation, etc.
Historic Preservation Organizations	• Provide subject-matter expertise and information for the repair and restoration of historical facilities. • Provide information to local officials related to the recovery needs of various historical facilities, artifacts, and landmarks following a disaster.
Voluntary Organizations Active in Disaster (VOAD)	• Coordinate faith-based and nonprofit member organizations to support recovery activities. • Gather information on the needs of the community and provide information to local, state, and federal government partners. • Use past experiences with disasters to develop strategies to address recovery issues. • Offer member organization resources and volunteers that cover a wide variety of service areas. • Serve leadership roles in Recovery Committees and Subcommittees to continue to match member resources with ongoing recovery needs.

State and Federal Recovery Partners

When local and mutual aid resources are inadequate, the local government may request assistance from the state. The local chief elected official must declare a local state of disaster and submit the declaration and disaster summary outline to the state. The state may schedule PDAs with federal, state, and local officials to determine if eligibility thresholds have been met. If the governor requests a federal disaster declaration and it is granted by the president, several disaster assistance programs may become available to individuals and governments. _Texas Emergency Management Executive Guide FY 2019 Edition_ provides additional details about this process.

In 2019, the State of Texas formed a Disaster Support and Recovery Task Force through TDEM and the Texas A&M University System to leverage state resources in support of local governments. _The TDEM/Texas A&M University System_ website has additional information about recovery assistance programs, cost reimbursement requirements, and frequent grant procurement mistakes to avoid.

The federal government's role in disaster recovery is outlined in the _National Disaster Recovery Framework (NDRF), Second Edition, June 2016_. The NDRF describes an organizational structure of RSFs and the federal agencies that can offer capabilities and resources to support state and local governments.

Case Study: Recovery Partnerships with Faith-based Organizations

Local emergency management officials are responsible for planning for the response to and recovery from the effects of disasters. At the local level, much of the humanitarian response and recovery involves the faith-based community. Houses of worship are often at the center of a community both before and following a disaster. They are a source of knowledge, information, social services, and—possibly most importantly—trust.

The Arlington Christian Disaster Network (ACDN), made up of 17 faith-based organizations in Arlington, Texas, demonstrates the value of partnerships with faith-based organizations. ACDN was recognized 3 years in a row by FEMA for its value to the Arlington community. ACDN has been designated by the city as its volunteer resource. In this role, ACDN's highly-trained and vetted volunteers register community volunteers and coordinate volunteer recovery activities at the direction of the city. This collaboration makes the best use of community member goodwill. ACDN organizes volunteers to provide important recovery services such as cleanup, clearing fallen trees, and delivering meals to those without power. The group is also active during periods when no disaster is imminent or has occurred, and manages the Community Emergency Response Team (CERT) training program, and provides CERT train-the-trainers and instructors to the Arlington Office of Emergency Management. FEMA awarded ACDN its 2017 Individual and Community Preparedness award and gave it honorable mention as a Community Preparedness Champion and in Preparing the Whole Community in 2016 and for Excellence in Volunteer Sustainability in 2015.

The activities of faith-based communities in response to Hurricane Harvey illustrates the immense impact the faith-based response to disaster can have and why establishing strong relationships between local governments and faith-based organizations makes sense.

Rev. Caroline Hamilton-Arnold of the Christian Church (Disciples of Christ) said, "Faith-based groups bring a unique combination of relationships and expertise to disaster recovery. Through local congregations and houses of worship, they serve as centers of connection and can play a vital role in identifying unmet needs and communicating available resources. Because faith-based groups are rooted in communities prior to and long after disasters, they have a pre-established trust with survivors and a vested interest in their long-term recovery. Faith-based groups are well positioned to advocate for and support holistic recovery that results in more sustainable and resilient communities. Effective coordination between public sector and faith-based groups leads to more efficient disaster response, increased confidence among survivors, and more complete recovery" (Westfall, Nelson, and Moorhead, 2019).

Despite their proven value, there remains a general lack of public sector awareness of faith-based organizations' skill sets and capacities in disaster relief. This leads to a disconnect between local emergency management and the faith community.

Additionally, the financial contributions of faith-based disaster response are rarely considered ahead of time. According to the Texas Legislative Budget Board, as of August 31, 2018, a year after Hurricane Harvey, state agencies had spent approximately $500 million in state funds on hurricane response and recovery, as well as $2.2 billion in federal funds.

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Over that same period, faith-based organizations collected or allocated well in excess of $210 million on Hurricane Harvey response and recovery—nearly half as much as Texas spent in state funds (Westfall, Nelson, and Moorhead, 2019). Using their fundraising experience and capabilities, faith-based communities can provide a much-needed financial resource for disaster recovery.

Emergency managers who promote collaboration with faith-based recovery partners and integrate them into their planning efforts find that response and recovery, especially in hard to reach and vulnerable communities, is much less challenging.

Finding ways to connect with faith-based communities through emergency preparedness, planning, training, and exercising strengthens the resilience of all communities and ensures a whole community approach to emergency planning. It is so critical, in fact, that in 2009, President Obama created the Office of Faith-Based and Neighborhood Partnerships. This office focused on fostering partnerships by providing tools and resources to local governments to encourage collaboration.

Examples of two states that have brought together emergency management and faith-based communities to increase emergency preparedness are Georgia and Oklahoma.

The Georgia Emergency Management and Homeland Security Agency (GEMA/HS) created Ready Georgia in 2008, which focused on ensuring that Georgians were prepared for emergencies. However, a rash of tornadoes in 2013 quickly highlighted that the faith-based community was a critical and untapped resource for not only delivering the preparedness message, but also in post-disaster recovery. Janay Stargell, the Faith-Based and NGO Coordinator with GEMA/HS, stated, "We noticed the houses of worship were really stepping up to the plate in times of need because they are in the community and they know the community very well. They're the ones who are able to help start with the cleanup, and they can be there through the recovery process" (Brown, 2015). Thus, the Praise and Preparedness initiative was created by GEMA/HS. The initiative focused on three areas: preparing the physical facility in case of emergency, preparing church leaders and volunteers to share messaging about emergency preparedness using tools and resources provided, and providing church leaders and volunteers with training both in response and recovery. Providing resources and training is an integral part of the program and serves as a force multiplier in times of disaster. Houses of worship decide what messaging works best for their congregations and can communicate challenges and unmet needs to the local officials, creating a win-win for both government and the community.

The Oklahoma Office of Homeland Security (OKOHS), the National Weather Service, and the American Red Cross worked together to make sure that houses of worship were ready to respond to and recover from a devastating tornado. They formed Supercell Sunday, an initiative developed to assist church leaders in creating tornado plans for their facilities. Wendi Marcy with OKOHS stated, "Most of these facilities have plans in place for fire evacuations or medical emergencies in the building, but few have taken the time to really sit down and discuss what they would do should they find themselves in a tornado warning with a building full of people" (Edwards, 2013). She also explained that Supercell Sunday was intended to be a starting point for churches. "If it's [emergency planning] not something you do for a living, then you're really at a loss," she said (Brown, 2015). Supercell Sunday also encourages those houses of worship that are participating to hold an annual exercise to run though the plan. This group started small with a few people in OKOHS approaching their own houses of worship, and the initiative slowly grew.

There are many large-scale, faith-based response and recovery organizations that work through the National Voluntary Organizations Active in Disaster (NVOAD), such as the Salvation Army, Lutheran Disaster Response, and Islamic Relief USA, but working at the local community level ensures that disadvantaged, remote, or vulnerable communities are included in the planning.

The faith-based community is vital to preparedness, response, and recovery in a disaster. Incorporating local faith-based organizations in emergency planning provides for improved communications for hard to reach neighborhoods, increasing volunteer resources and fundraising capabilities. Ed Sackett, Mission Presbytery Disaster Recovery Coordinator for Hurricane Harvey, suggests that local VOADs should be given the authority to work with and beside emergency managers for coordination purposes (Westfall, Nelson, and Moorhead, 2019). This is an existing network and provides a captive audience of people already passionate about disaster response and recovery planning.

References

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VI. Anticipating Recovery Actions: Recovery Area Annexes

This section contains six Recovery Area Annexes: Economic, Health and Social Services, Housing, Infrastructure, Land Use Planning and Development, and Natural and Cultural Resources. Each Annex presents the recovery area's mission, objectives, and potential lead and support organizations. Most importantly, each Annex outlines key recovery activities to be carried out for each critical function through all three phases of recovery. This section also includes case study examples of how these functions have been implemented during past disasters. Recovery Committees can review these Annexes to better understand the types of activities they may be involved in following a disaster.

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1.   Economic

Mission

The Economic Committee coordinates the efforts of government, nonprofit, and private-sector partners to support restoration and revitalization of the local economy following a disaster. The Committee supports the repair efforts of local businesses and encourages the reinvestment and private-sector lending necessary to restart the local economy. The Committee also supports local workforce development, including job-placement services and training opportunities.

Note: NCTCOG has conducted extensive research related to the challenges of economic recovery following a disaster and compiled a suite of guidance and resources for both local governments and businesses to build resilience and support economic recovery. These resources can be found on the NCTCOG website.

Recovery Objectives

- Provide support to local businesses to repair, reconstruct, and resume operations so that they can remain in the area.

- Develop public–private partnerships to encourage reinvestment in the local economy and recruit new businesses to the area.

- Help local residents return to work by providing referrals and resources.

- Collaborate with the private sector to develop economic recovery strategies that leverage existing economic development plans and increase economic resiliency to future disasters.
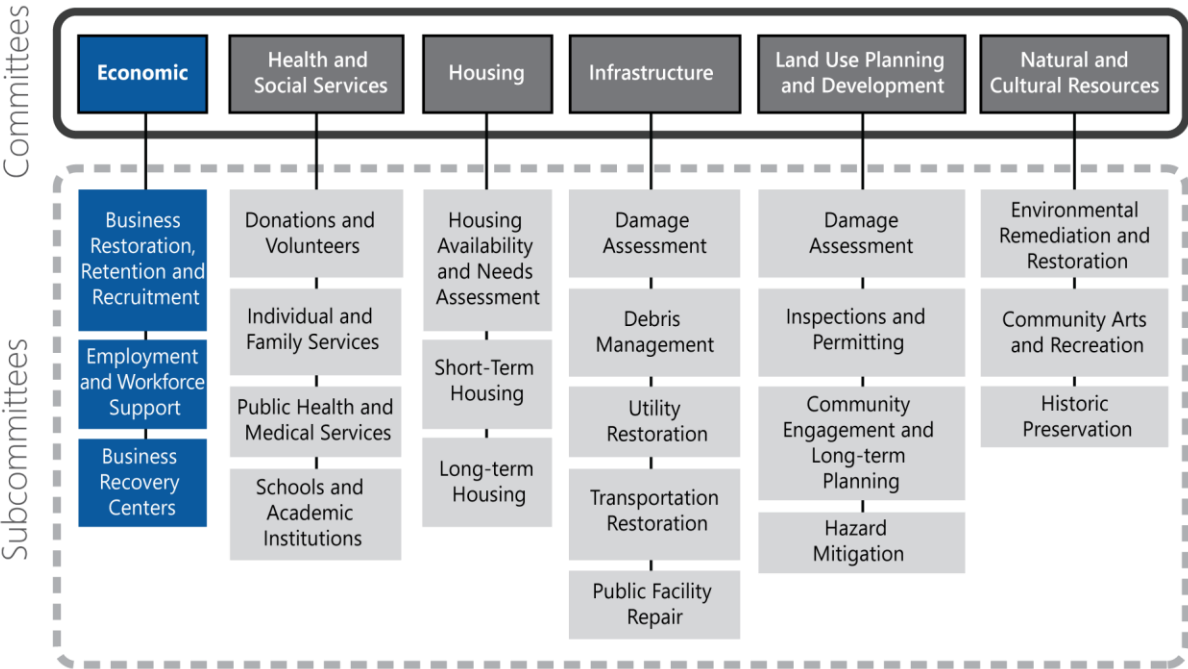
Local Recovery Partners

Local Organization	Business Restoration, Retention, and Recruitment	Employment and Workforce Support	Business Recovery Centers
Department of Economic and Workforce Development	Lead	Lead	Support
North Central Texas Economic Development District	Support	Support	Support
Chamber of Commerce	Support	Support	Support
North Central Texas Small Business Development Center	Support	Support	Support
Local Business Owners	Support	Support	Support
Office of Emergency Management			Support
Planning Department	Support		

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Economic Committee. The federal agencies listed have committed to these roles per the NDRF.

Effective September 1, 2019, House Bill 6 (HB6) enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, and the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System – Texas Division of Emergency Management • Economic Development and Tourism Division of the Governor's Office	Coordinating Agency • U.S. Department of Commerce Primary Agencies • Federal Emergency Management Agency • Small Business Administration • U.S. Department of Agriculture • U.S. Department of Homeland Security • U.S. Department of Labor • U.S. Department of the Treasury
Supporting Organizations • Texas Economic Development Corporation • Texas Economic Development Council • Insurance Council of Texas	Supporting Organizations • Delta Regional Authority • Environmental Protection Agency • General Services Administration • U.S. Department of Health and Human Services • U.S. Department of Housing and Urban Development • U.S. Department of State • U.S. Department of the Interior

Business Restoration, Retention, and Recruitment

Objective

Provide resources, programs, and strategies to help affected business owners quickly resume operations and develop strategies to attract new businesses to the area.

Overview

The Business Restoration, Retention, and Recruitment Subcommittee should include participation from government departments that develop and implement economic plans and programs; local associations that promote local economic development; and local business owners and employers. Local, state, and national chambers of commerce and the federal SBA should provide information on programs and assistance (such as recovery business loan programs) to help business owners during recovery.

Pre-disaster Preparedness Activities

- Develop long-term economic development plans and strategic priorities to direct economic investment during disaster recovery.

- Identify and foster development of resources to promote economic resilience, such as small business support services and employment and job-placement programs.

- Encourage private-sector entities to create business continuity plans (BCPs).

- Identify essential businesses that should receive priority for reopening because they are necessary for other businesses to open (e.g., the banking system to ensure cash flow and availability, local home improvement stores to provide supplies for repairs, grocers to provide food to the affected population).

- Support and encourage incorporation of private sector partners into emergency management planning, training, and exercises.

- Collaborate among private companies, insurers, and lenders that may be crucial to disaster recovery. Create a working group to participate in recovery planning efforts.

- Develop an outreach campaign to help local businesses understand the limitations of insurance for disasters.

Transition Phase Activities

- Review damage assessments to understand the operational status of current businesses to determine which are still operating, which had to close, and which can reopen with available resources and support.

- Prioritize support to reestablish essential commercial services (e.g., food, fuel, pharmaceuticals, banks) in locations near population concentrations.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Work with commercial property management companies to identify available facilities that could be used for the temporary relocation of essential businesses.

- Support local businesses to leverage nontraditional resources that may provide recovery capabilities (i.e., flower-delivery trucks used to distribute small amounts of commodities over short distances).

- Establish, staff, and provide resources to service centers and information centers to distribute information on available SBA programs and financial assistance.

- Work with the Land Use Planning and Development Committee to facilitate amendment of regulations, codes, and permitting requirements to remove or lessen challenges of reopening disaster affected businesses.

- Coordinate with insurance providers to disseminate information about insurance benefits and limitations and proper documentation for insurance claims.

Long-term Recovery Activities

- Work with private insurers to monitor insurance premiums and coverage to facilitate timely repair and restoration of damaged businesses.

- Coordinate with insurance companies to expedite claim settlements and payouts.

- Identify public–private partnerships and sources of funding to support local business recovery.

- Work with the SBA and lenders to monitor commercial credit availability and identify and address credit and lending gaps that may delay business repair and resumption efforts.

- Work with commercial real estate brokers to match displaced businesses with available commercial space.

- Coordinate with businesses to determine what services and sectors are at risk of leaving and what resources would be needed to ensure they remain in the area.

- Develop public outreach campaigns encouraging people to shop at local businesses when possible.

- Identify opportunities to provide incentives to businesses for remaining in the area.

- Collaborate with lending institutions to facilitate lending and investment to local businesses.

- Identify strategies for recruiting companies that will provide job opportunities to the community.

Information Collection

Proposed measures of recovery progress in this area include:

- Total disaster-affected businesses;

- Number of businesses with minor or major damage or that are closed (i.e., condemned);

- Number of businesses reopened within the central business district;

- Number of insured and uninsured businesses;

- Number of commercial bankruptcies; and

- Tax revenues.

Employment and Workforce Support

Objective

Provide job placement and job training resources for workers who are displaced by the disaster.

Overview

The Employment and Workforce Support Subcommittee involves coordination between local government departments that run programs that support local employees and local nonprofit and private-sector organizations that provide services such as reviewing resumes, job training, job placement, and career counseling services. This Subcommittee should incorporate organizations that provide these services to low-income residents and residents with limited English proficiency.

Pre-disaster Preparedness Activities

- Facilitate business outreach campaign to highlight the importance of employee preparedness both at home and at work.

- Identify local nonprofit and private organizations that provide job placement and training services, particularly for low-income and limited-English proficiency populations.

- Establish and maintain strong relationships between local government economic development departments and major employers.

Transition Phase Activities

- Assess the impact to the local workforce, including staffing levels for key sectors.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue to assess the impact to the available workforce.

- Establish, staff, and provide resources to service centers and information centers to distribute employment resources and referrals.

- Coordinate with community organizations and social service providers to promote public awareness of available resources and services for employee health and wellness, childcare, and dependent care.

- Coordinate with major employers to provide workforce transportation services if normal transportation and public transit options are limited.

- Coordinate with major employers to provide temporary workforce housing to locate employees closer to employer facilities.

- Identify opportunities for displaced workforce to participate in recovery efforts.

Long-term Recovery Activities

- Coordinate with major employers, placement companies, and job-training companies to provide training, resources, information, and placement services for area residents.

- Coordinate with community organizations and social service providers to disseminate information on available resources and services for employee health and wellness, childcare, and dependent care.

- Promote hiring of area workers and local contractors for recovery activities (e.g., construction and related fields).

Information Collection

Proposed measures of recovery progress in this area include:

- Unemployment statistics.

Case Study: Employing Disaster Survivors

Honduras, one of the poorest countries in the Americas, experienced six hurricanes between 1969 and 2001. The most damaging of these was Hurricane Mitch, which struck in 1998, leading to 5,757 deaths, 441,150 displaced, and 1.5 million affected. Destruction of 35,000 houses, loss of crops and livestock, and damage to other infrastructure such as buildings, hospitals, ports, highways, and bridges contributed to a total of $3.6 billion in economic losses, equivalent to 74 percent of the country's annual gross domestic product.

In response to the drastic and catastrophic impacts to housing and infrastructure, the country's National Fund for Social Investment worked with local contractors to begin rebuilding, often expediting projects to conduct immediate hiring on site.

The use of local labor helped to speed rebuilding efforts, contributing to the completion of 2,200 projects within the first 100 days after the hurricane. These projects constituted 30 percent of the country's infrastructure reconstruction needs, equating to $40 million in value.

Not only did employment of local residents expedite the reconstruction process, but it produced social benefits as well. Enabling disaster survivors to contribute to the rebuilding of their own communities promotes ownership over the recovery effort and improves morale. It also generates income that can help sustain individuals and families during a difficult time.

Reference

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Business Recovery Centers

Objective

Offer a single coordinating place to provide businesses with local, state, and federal resources and services.

Overview

The Business Recovery Centers Subcommittee supports business recovery centers (BRCs), which are often established by a local economic development organization in cooperation with local, state, and federal partners. The BRC should include representatives from the SBA, local business leaders, bank officers, chambers of commerce, workforce-development entities, specialized technical assistance counselors, and other local organizations that provide financial or technical assistance to small businesses.

Pre-disaster Preparedness Activities

- Pre-identify organizations and resources that can support BRCs.

Transition Phase Activities

- Assess the need to establish a local BRC(s) and identify possible locations.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue to monitor and assess the need to establish a local BRC(s) to serve affected populations.

- Coordinate logistical needs for establishment and operation of BRCs and coordinate with state and federal partners to staff it.

- Identify organizations and resources available to support operations and coordinate with state and federal partners to operate the BRC.

- Identify and/or provide local subject-matter experts and support staffing for operations.

Long-term Recovery Activities

- Continue to operate BRCs until they are no longer needed.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of BRCs opened; and

- Attendance at BRCs.

2.   Health and Social Services

Mission

The Health and Social Services Committee coordinates with government, private, and nonprofit providers to pool resources to support individuals, families, and children, including those with disabilities and others with access and functional needs. In addition to reestablishing pre-disaster services, this Committee also works to identify community recovery needs and provide additional services to meet those needs.

Recovery Objectives

- Manage donations and volunteers effectively.

- Coordinate individual and family services that support recovery.

- Ensure the needs of vulnerable populations are addressed.

- Provide health information and medical services to disaster survivors.

- Support education institutions as they recover.

- Provide easily-accessible recovery information and resources to the public.
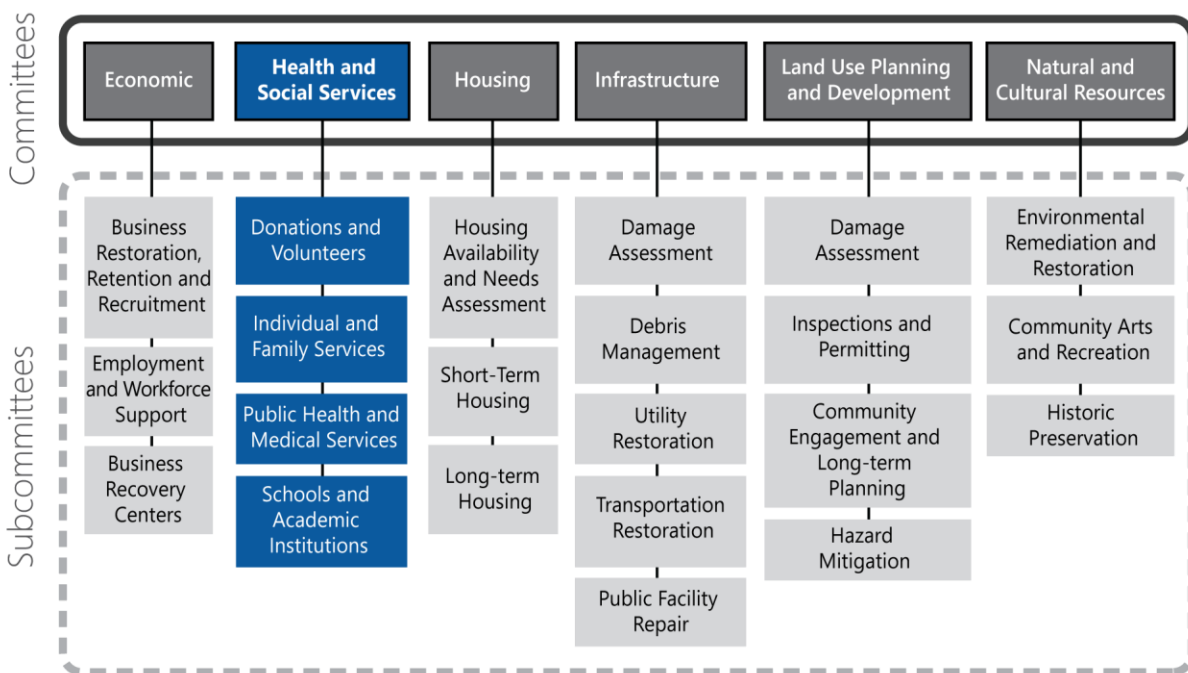
Local Recovery Partners

Local Organization	Donations and Volunteers	Individual and Family Services	Public Health and Medical Services	Schools and Academic Institutions
Social Services Department	Support	Lead	Support	Support
Public Health Department		Support	Lead	
Environmental Health Department			Support	
Parks and Recreation	Support	Support	Support	Support
Office of Emergency Management	Lead	Support	Support	Support
Voluntary Organizations Active in Disaster	Support	Support	Support	Support
American Red Cross	Support	Support	Support	Support
Salvation Army	Support	Support	Support	Support
Community Advocacy Organizations	Support	Support	Support	Support
NGOs and Faith-based Organizations	Support	Support	Support	Support
Libraries	Support	Support		Support
School District		Support		Lead
Universities	Support	Support		Lead

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Health and Social Services Committee. The federal agencies listed have committed to these roles per the NDRF. Note that the State of Texas has not identified lead or supporting organizations for recovery functions, and thus this table lists *potential* state partners.

Effective September 1, 2019, HB6 enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System – Texas Division of Emergency Management • Texas Health and Human Services Commission	Coordinating Agency • U.S. Department of Health and Human Services Primary Agencies • Corporation for National and Community Service • Federal Emergency Management Agency • U.S. Department of Agriculture • U.S. Department of Commerce • U.S. Department of Education • U.S. Department of Homeland Security/Cybersecurity and Infrastructure Security Agency • U.S. Department of Homeland Security/Office for Civil Rights and Civil Liberties • U.S. Department of Housing and Urban Development • U.S. Department of the Interior • U.S. Department of Labor • U.S. Environmental Protection Agency
Supporting Organizations • Texas Department of Public Safety, Emergency Management • Texas Department of State Health Services • Texas Education Agency • Texas Hospital Association • Texas Public Health Association • Texas Public Health Coalition • Texas Voluntary Organizations Active in Disaster	Supporting Organizations • American Red Cross • National Voluntary Organizations Active in Disaster • Office of Foreign Missions • Small Business Administration • U.S. Department of Education • U.S. Department of the Treasury • U.S. Department of Transportation • U.S. Department of Veterans Affairs

Donations and Volunteers

Objective

Effectively manage solicited and unsolicited donations and volunteers to help with recovery efforts.

Overview

The Donations and Volunteers Subcommittee plans and coordinates among local NGOs, local VOAD, the faith-based community, and local volunteer organizations to develop strategies to effectively manage volunteers and both financial and commodity donations following a disaster. This group should work closely with the Public Information Officer to provide messaging that discourages unsolicited or unneeded items, as well as directing donors to legitimate organizations. The effective management of donations and volunteers requires heavy involvement from local VOADs and other organizations that coordinate donations and volunteers as part of their organizational mission.

Pre-disaster Preparedness Activities

- Identify local NGOs' missions, services, and resources available and incorporate NGO partners in response and recovery training and exercise activities.

- Involve local VOAD in planning, training, and exercises related to recovery.

- Develop community-wide donations and volunteer management plans and develop pre-scripted messaging to discourage unsolicited donations.

- Pre-identify potential volunteer staging areas and donation storage and distribution locations.

Transition Phase Activities

- Disseminate information to the public on emergency commodities distribution areas including water, ice, food, hygiene and sanitation products, etc.

- Disseminate frequent and consistent donations management public messaging to discourage unsolicited commodities donations and redirect donors to cash donations or needed items.

- Collaborate with local NGOs, VOAD, and faith-based communities to assist with donations management, volunteer management, and public messaging.

- Evaluate the need for a local disaster fund to receive financial donations and coordinate with a local community foundation or other nongovernmental partner with the capability to serve as a central point to collect cash donations.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue donations and volunteer messaging.

- Identify issues with unsolicited donations and volunteers and identify strategies to redirect potential donors to cash contributions

- Establish a local disaster fund to receive financial donations if necessary.

- Coordinate with local VOAD for assistance with donations management, available resources, volunteer management, and public messaging.

- Engage local NGOs and faith-based organizations that can help with collecting, sorting, storing, transporting, and distributing unsolicited donations.

- Coordinate with local nonprofits and VOAD members with volunteers to combine activities like training, deployment, and management.

Long-term Recovery Activities

- Continue donations and volunteer messaging, identify issues with unsolicited donations and volunteers, and identify strategies to redirect potential donors to cash contributions.

- Coordinate with local VOAD for assistance with donations management, available resources, volunteer management, and public messaging.

- Engage local NGOs and faith-based communities that can help with collecting, sorting, storing, transporting, and distributing unsolicited donations.

- Support operation of a local disaster fund to receive financial donations, if established.

- Collaborate with local nonprofits that routinely work with volunteers to identify potential recovery activity volunteer opportunities.

Information Collection

Proposed measures of recovery progress in this area include:

- Types and/or amount of donations received and distributed;

- Financial donations received (and whether a local disaster fund is established);

- Volunteer participation; and

- Volunteer program and project achievements.

Case Study: Strategies for Volunteer and Donations Management

After a catastrophic disaster, many people across the globe want to help those in crisis in any way possible. Despite good intentions, large influxes of unaffiliated volunteers and unsolicited donations can complicate a recovery and sometimes cause more harm and waste than good.

Unaffiliated volunteers are individuals who are not part of an organized effort by an established volunteer network (such as the American Red Cross). While they may offer useful skills and expertise, they are often not sufficiently trained to serve in an on-the-ground post-disaster environment. During response and short-term recovery phases, unaffiliated volunteers can put themselves and others in danger.

However, once the affected areas are safe for residents to return, unaffiliated volunteers can present a valuable resource to expedite recovery operations. The Florida Division of Emergency Management determined that economic advantages alone are significant enough to justify making volunteers a part of emergency plans and regularly incorporate them during hurricane cleanup. An additional item for consideration is that costs associated with volunteer management during federally declared disasters are potentially eligible for FEMA reimbursement provided the proper memorandums of understanding and documentation are in place.

Pre- and post-disaster, local governments can work with VOAD partners and other local NGOs to identify recovery volunteer opportunities. Following a disaster, recovery partners can begin proactively disseminating information via social media and local websites about safe, legitimate volunteer opportunities. Directing unaffiliated volunteers to specific opportunities helps give valuable tasks to people who want to help and particularly people who want to be a part of their own community's recovery. Volunteerism has been suggested as an avenue to reduce stress and empower disaster victims (Fernandez, Barbera, and Van Dorp, 2006).

Volunteer solicitations should be accurate and specific so that people know what to expect and whether it is the right opportunity for them. For example:

- What is the actual task? A food drive may be looking for people to contribute food, hand out food, or clean up.
- What age group is appropriate? Adults can work on a construction site, but they should not bring 3-year-old children.
- Are there any physical requirements? Someone with mold allergies should not be involved with muck removal.

Organizations that offer recovery volunteer activities should have processes in place to:

- Provide a detailed job description;
- Have an intake and vetting system; and
- Provide appropriate training.

Volunteers can be a significant source of readily available manpower, skills, and abilities and can be invaluable in reaching affected communities. Some of the most useful volunteer roles during recovery include:

- Providing foreign language translation and interpretation;
- Providing light debris removal;
- Distributing information on recovery services and programs;
- Organizing events to keep up morale and unite the community; and
- Providing transportation or housing through companies such as Uber and Airbnb.

What do you do about all those heart-felt, well-meaning donated items that were not requested? Piles of old clothes and discarded items can create a "disaster after the disaster." As a first line of defense, local governments can ask potential donors to give financial contributions instead of items. However, a report on the behavior behind unsolicited donations found that a public message campaign visually displaying unsolicited items in a landfill had the greatest impact on slowing the stream of unsolicited donations.

In a survey of more than 1,000 Australians, multiple public message campaigns were tested, including cash instead of donated items, the landfill visual, clogging the supply chain (e.g., unsolicited donations littering airport tarmacs and preventing much-needed medical supplies from reaching their destination), and transportation delays. The "landfill" message reduced the likelihood of unsolicited donations by 50.1 percent, while the "cash instead" message only saw a 23.4 percent reduction. In fact, the other two methods also proved more effective than the "cash instead" message. Explaining the delay in receiving unsolicited donations at their desired locations reduced donations by 38.4 percent, and the idea that donations heavily clog the supply chain came in at 30 percent (Australian Council for International Development, 2017).

Some jurisdictions have attempted an online registry to manage donations. Following Hurricane Sandy, the Occupy Sandy group was quickly overrun with donated clothes and other items that were not immediately needed. The group did not want to discourage donating, so it created an online registry (similar to a wedding registry) to list specific items to purchase. This way, donors could send what was needed (Fessler, 2013). People often feel that donating cash is not doing enough or that it may not reach those affected. With a registry, donors know the items are needed and have a legitimate organization that is prepared to receive and distribute them.

The U.S. Agency for International Development (USAID) created the Center for International Disaster Information, which focuses on developing ways to manage public donations during disasters. It has created several tools that could be used by local jurisdictions, including a donations calculator that provides a visual representation of what a donation really costs. For example, sending one bottled water across the country or oversees can be 1,000 times more expensive than using local resources once transportation, personnel, and energy are considered. Another interesting tool is a list of 55 ways to repurpose a material donation that includes ideas such as holding a cook-off to use unused canned goods, hosting a large outdoor market to sell items and use the funds for recovery efforts, and donating clothing items to local school drama clubs, homeless shelters, etc.. If your jurisdiction has the means to store items short term, doing so could be better than contributing to the local landfill.

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

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Individual and Family Services

Objective

Provide support to disaster survivors through personal welfare and care services, referrals, and outreach.

Overview

The Individual and Family Services Subcommittee can have diverse participation. Often, Social Services entities and local VOAD assume leadership roles within the Subcommittee. These groups must work closely to understand both the needs of the affected community and the services provided by recovery partners. This Subcommittee should ensure that any service delivery areas or information and assistance centers are inclusive and provide pertinent resources and information.

Pre-disaster Preparedness Activities

- Create a matrix of resources available to those affected by disaster through community NGOs and VOAD members, including thresholds to activate resources and limits that may be present (dollar amount, family size, etc.).

- Coordinate planning, training, and exercises with community NGOs through the local VOAD.

- Support and participate in coordinated efforts by nongovernmental agencies to develop a Long-term Recovery Group or Unmet Needs Committee.

- Support development of a process to coordinate long-term disaster case management that is compliant with state and federal regulations and client confidentiality standards.

Transition Phase Activities

- Continue mass care operations initiated during the response phase until they are no longer needed.

- Identify active VOAD partners, share information about relief operations, and develop consistent public messaging about available support.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Support demobilization of emergency shelters, including gathering information on recovery needs of families and individuals leaving the shelter.

- Stand up and manage local resource and information centers and/or support FEMA Disaster Recovery Centers (DRCs) if a federal declaration is received. Provide information to the public about the location and services located at the information center(s).

- Provide public information on available disaster assistance programs and who may qualify through all communication channels (city/county website, social media, tv/radio, etc.).

- Coordinate with local social service agencies and organizations to provide mental health services and referrals to disaster survivors.

- Coordinate with local organizations that provide services to vulnerable populations (e.g., those with disabilities and access and functional needs, seniors, children, and those with limited-English proficiency) to provide relief services and disseminate information.

- Ensure all service delivery areas are accessible for people with disabilities and others with access and functional needs, including information and assistance centers. Consider language issues when crafting public messaging or printed information.

- Coordinate available animal care, temporary animal sheltering, and animal reunification resources through both nonprofit organizations and local governmental animal services entities.

- Coordinate community door-to-door needs assessments, if necessary.

- Support FEMA DRCs (if disaster receives federal declaration). Provide information to the public about the location and operations of the DRC; the information that will be available; and that they may qualify for federal individual assistance from FEMA, SBA, and other federal programs.

- Coordinate with local community NGOs and VOAD to ensure available resources are communicated with affected communities.

- Ensure continuity of social services programs and coordinate with Texas Health and Human Services for additional resources.

Long-term Recovery Activities

- Continue to support staffing, resources, and logistical support for local information centers and/or DRCs for social and human services, such as assistance for those with disabilities, case management, crisis counseling, family-recovery assistance, childcare services, and nutrition services. Service and information centers may also provide information on housing, employment, important document recovery, and other disaster recovery resources.

- Maintain ongoing relationships with VOADs, nonprofits, and faith-based organizations to coordinate recovery assistance efforts.

- Work with VOAD partners to gather information on unmet needs of the community and identify strategies, programs, and resources to address them.

- Provide information and referrals about available community resources and assistance to the public.

Information Collection

Proposed measures of recovery progress in this area include:

- List of VOAD members actively providing services;

- Information and assistance centers established;

- Number of individuals visiting information and assistance centers; and

- Identified unmet needs.

Case Study: Inclusive Disaster Recovery

From 2010 to 2015, jurisdictions around the country were faced with lawsuits regarding the lack of emergency planning for people with disabilities and others with access and functional needs. In 2011, Los Angeles City and County were both part of a lawsuit in which the judge ruled that both had plans that discriminated against people with disabilities. The judge wrote, "Because of the city's failure to address their unique needs, individuals with disabilities are disproportionately vulnerable to harm in the event of an emergency or disaster" (Kim, 2011).

This call to action has made local jurisdictions, states, and FEMA prioritize emergency planning for people with disabilities and others with access and functional needs. While this inclusive planning has become a standard consideration for response planning, it has remained a difficult challenge for many communities during the recovery phase.

People with disabilities and others with access and functional needs have a more difficult time recovering, particularly if their condition is exacerbated by poverty, unemployment, and limited access to healthcare. In a post-disaster situation, people with disabilities may be temporarily or permanently separated from their social support systems—such as neighbors, caretakers, or friends—who understand their needs and were available to help on a routine basis. This can create an additional barrier to recovery.

Following a disaster, case managers serve a key role in assisting survivors—and are particularly important for people with disabilities. Disaster case managers connect survivors to available resources, provide help with disaster assistance registration or appeals, and assist in developing a personalized disaster recovery plan. They work with the individual or family to assess their needs, create a plan for recovery, provide resources and information, and monitor progress.

Case managers can be provided through the Disaster Case Management Program (DCMP), a federally funded program administered by FEMA and the U.S. Department of Health and Human Services Administration for Children and Families (ACF). Following a presidentially declared disaster that includes Individual Assistance, the Governor can request DCMP to direct services by deployed ACF disaster-management teams that provide outreach and services for 30 to 180 days. The Governor can also request a federal grant for the state to administer and implement a DCMP through community organizations, such as local or national VOAD members.

In addition to common recovery needs such as housing, financial assistance, and transportation, people with disabilities may also require disability support services, such as personal assistants, special education services, or medical services. It is critical to ensure that community members who need these additional services are connected with disaster case managers who understand their disability support needs.

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

In addition to case managers, city and county governments can share existing information resources that connect people with disabilities to recovery resources. Hurricane Harvey in 2017 highlighted the need to quickly and reliably disseminate information on existing services and resources for people with disabilities that can support personal recovery. The Center on Disability and Development at Texas A&M University established the REDDy directory, which can be found at https://redd.tamu.edu/disaster-information. REDDy is an online, searchable guide to disability-related resources for individuals and families impacted by Hurricane Harvey. The REDDy directory is a subset of an existing directory for the State of Texas that houses more than 2,500 disability resources. The larger database was adapted to provide focused resources for disaster survivors. Local jurisdictions can promote awareness of this Texas-based resource for future disasters.

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Public Health and Medical Services

Objective

Support local healthcare providers, provide information on disaster-related health issues, and support community health advocacy organizations.

Overview

The Public Health and Medical Services Subcommittee supports local healthcare providers in reestablishing services, support the provision of community health services, and develop and disseminate disaster-related health information and resources. This Subcommittee should involve participation from local healthcare providers and hospital networks, local public health and health departments, the Texas Department of State Health Services, and the Texas Hospital Association to ensure all resources are available and used to facilitate recovery.

Pre-disaster Preparedness Activities

- Work with local healthcare providers to ensure there are up-to-date Continuity of Operations (COOP) Plans as well as emergency response plans in place. Involve healthcare providers and hospitals in exercises and training activities organized by local Emergency Management Agencies.

- Continue to build relationships between government organizations and community NGOs providing health and medical services, work to better understand those organizations' missions and services, and incorporate NGO partners in response and recovery training and exercise activities.

- If one does not already exist, Emergency Management and Public Health departments should work to establish a public health emergency planning working group to conduct ongoing emergency preparedness.

Transition Phase Activities

- Disseminate public health directives related to disaster impacts (e.g., boil water).

- Support local healthcare providers with patient tracking and reunification efforts, if requested.

- Support points of distribution operations initiated during the response phase and disseminate information to the public on emergency commodities distribution areas.

- Work with local healthcare networks and providers to disseminate public messaging on the status of operations.

- Coordinate with healthcare providers to establish mobile locations for providing medical assistance, if requested.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue to disseminate disaster-related public health information.

- Identify potential alternate or mobile locations for providing medical assistance, if requested.

Long-term Recovery Activities

- Support local organizations to provide community health services, including mental health services.

- Maintain effective public health outreach and communications related to recovery impacts (e.g., mold, drinking water contamination).

- Monitor and maintain human and animal disease surveillance.

- Identify and advocate for public–private funding to meet the physical and behavioral health needs of vulnerable populations.

Information Collection

Proposed measures of recovery progress in this area include:

- Percentage of affected healthcare providers returned to normal operations; and

- Public health outreach campaigns and information resources.

Schools and Academic Institutions

Objective

Provide recovery support to local school districts, private schools, and higher education institutions.

Overview

The Schools and Academic Institutions Subcommittee coordinates with local school districts and universities to ensure students receive access to available recovery resources. This Subcommittee also supports the demobilization of emergency shelter locations at school sites and the return to normal school operations.

Pre-disaster Preparedness Activities

- If one does not exist, establish an education emergency working group that includes local emergency management and public health departments, school districts, and universities to conduct ongoing preparedness efforts.

- Include schools in disaster trainings and exercises. Provide a variety of scenarios so school administrators and school systems at all levels can explore ways in which they might prepare for, respond to, and recover from a disaster.

- Maintain a current list of all public and private primary, secondary, and high school emergency contact information and emergency alert systems and procedures.

- Conduct preparedness planning for the use of temporary, portable, or modular buildings to continue school while school facilities are inhabitable.

- Conduct preparedness planning for virtual or remote learning as an alternative to in-person instruction.

- Promote individual and family preparedness in schools and universities and encourage students to participate in community emergency preparedness activities.

- Encourage local community colleges, public and private colleges, and universities to plan and train together to become more disaster resilient.

- Develop university continuity plans to continue classes during recovery, which may include transitioning classroom courses to virtual courses.

Transition Phase Activities

- Establish communication with childcare centers, schools, and universities in the affected area to understand extent of physical damages and anticipated impact on operations.

- Coordinate the consolidation and/or deactivation of schools used as emergency shelters.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Provide support to local school districts to maintain continuity of services, reestablish operations, and disseminate public messaging related to closures.

- Coordinate with local and state education entities to identify temporary, alternative, and/or supplemental locations for schools and tools and resources required for virtual or remote instruction, as needed.

Long-term Recovery Activities

- Support local school districts' efforts to reestablish full operations.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of schools used as emergency shelters;
- Number of schools with heavy damage or destroyed;
- Number of school-aged children in affected area;
- Number of affected schools returned to normal operations; and
- Number of students resuming school.

3. Housing

Mission

The Housing Committee coordinates the efforts of government, nonprofit, and private sector partners to provide displaced residents with housing information and assistance. The Committee implements programs and policies to support temporary and permanent housing solutions.

Recovery Objectives

- Identify impacts to housing stock, short-term and long-term housing needs, and displacement and relocation data.

- If the disaster receives a federal declaration, coordinate with FEMA to implement sensible short- and long-term housing solutions.

- Collaborate with private-sector entities to identify solutions for short-term and long-term housing.

- Collaborate with the nonprofit community to identify housing solutions and address the needs of those displaced.
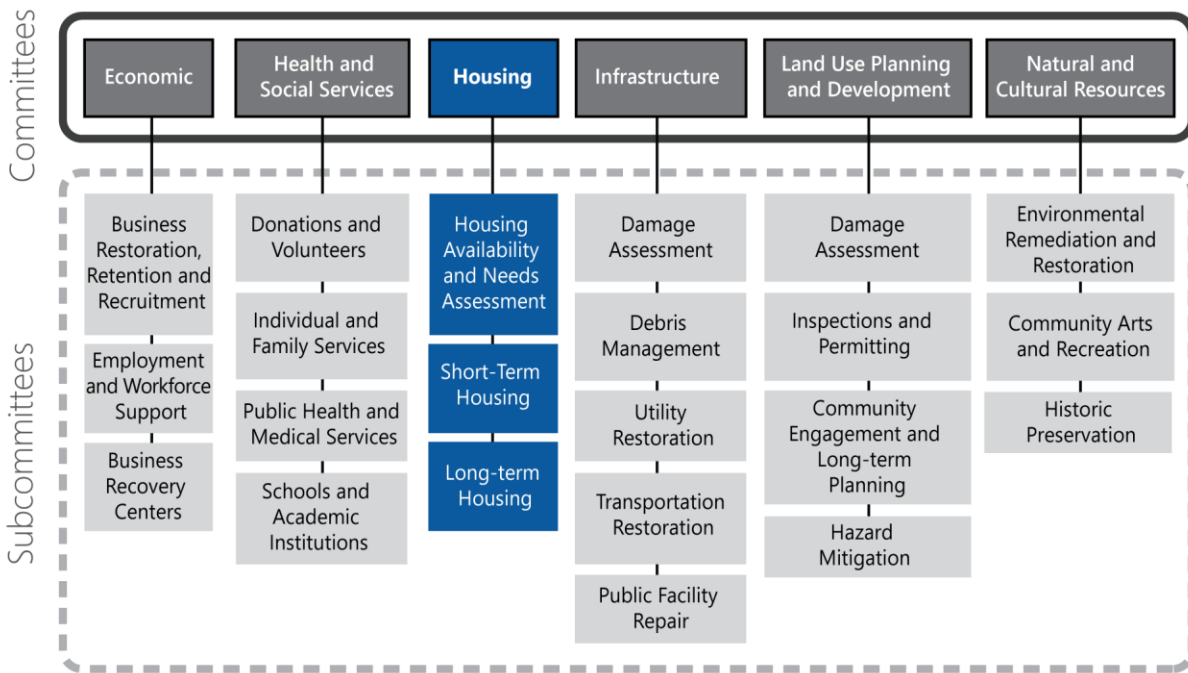
Local Recovery Partners

Local Organization	Housing Availability and Needs Assessment	Short-term Housing	Long-term Housing
Department of Housing	Lead	Lead	Lead
Community Development	Support	Lead	Lead
Neighborhood Improvement	Support	Lead	Lead
Planning Department	Support	Support	Support
Economic Development Department	Support	Support	Support
Office of Emergency Management	Support	Support	Support
Apartment Association	Support	Support	Support
Home Builders Association	Support	Support	Support
Housing Authority	Support	Support	Support
Housing Affordability Advocacy Organizations		Support	Support
North Texas Community Development Association		Support	Support
Local Real Estate Developers			Support

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Housing Committee. The federal agencies listed have committed to these roles per the NDRF.

Effective September 1, 2019, HB6 enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, and the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System – Texas Division of Emergency Management • Texas Department of Housing and Community Affairs • Texas General Land Office	Coordinating Agency • U.S. Department of Housing and Urban Development Primary Agencies • Federal Emergency Management Agency • U.S. Department of Agriculture • U.S. Department of Justice
Supporting Organizations • Texas Health and Human Services Commission • Texas Housing Association • Texas Insurance Council	Supporting Organizations • American Red Cross • Environmental Protection Agency • General Services Administration • National Voluntary Organizations Active in Disaster • Small Business Administration • U.S. Access Board • U.S. Department of Commerce • U.S. Department of Education • U.S. Department of Energy • U.S. Department of Health and Human Services • U.S. Department of Veterans Affairs

Housing Availability and Needs Assessment

Objective

Coordinate collection of impacts to housing stock, estimate short-term and long-term housing needs, and estimate available housing resources and assistance programs.

Overview

The Housing Availability and Needs Assessment Subcommittee works with the Damage Assessment Subcommittee to gather and analyze data on impacts to residential structures. They also coordinate with the Individual and Family Services Subcommittee to determine urgent housing needs and work to address the most dire and immediate needs.

Pre-disaster Preparedness Activities

- Maintain an up-to-date inventory of the current housing stock and rental and home units as they come on the market.

- Establish relationships with apartment and home builders' associations and housing affordability organizations to coordinate information sharing pre- and post-disaster.

Transition Phase Activities

- Use damage assessment data to identify the degree of impacts to residential areas.

- Compare damage assessment data with pre-disaster housing inventories to estimate the needs for rental units, single-family homes, and multi-family homes.

- Coordinate with the Land Use Planning and Development Committee to evaluate the need for construction moratoria, reconstruction phasing, and other policies to pace construction.

- Evaluate impacts to hotel and motel properties and identify vacancies and room rates.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Coordinate outreach to provide displaced residents with information about available transitional and short-term housing options.

- Work with the Texas Department of Insurance to monitor the pace of claims.

- Work with the Land Use Planning and Development Committee to monitor the progress and pace of home repairs, permitting, and occupancy.

- Work with federal partners to monitor the pace of Individual Assistance applications and disbursements.

Long-term Recovery Activities

- Monitor the processing of insurance claims, permits, and individual assistance disbursements.

- Develop reports and analysis on housing availability and needs to share with potential investors, local real estate developers, and apartment and home builder associations.

- Develop data-driven recommendations for allocating funding to address long-term housing needs.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of housing units damaged, destroyed, or abandoned;

- Rental units used as short-term and temporary housing;

- Number of modular or mobile homes used as temporary housing;

- Hotel and motel vacancy rates; and

- Number of individuals receiving federal assistance.

Short-term Housing

Objective

Identify and implement short-term housing solutions for those displaced by the disaster.

Overview

The Short-term Housing Subcommittee will work with local, state, and federal agencies and nonprofit and private sector recovery partners to identify safe, clean, and affordable temporary housing that complies with local regulations.

Pre-disaster Preparedness Activities

- Develop and adopt a pre-disaster recovery ordinance that facilitates short-term housing in a post-disaster situation, such as allowing for modular or mobile homes on homeowner property.

- Engage local community development organizations, housing affordability advocacy organizations, and private sector real estate partners in disaster recovery planning to identify strategies for post-disaster housing.

- Establish criteria for identifying potential sites for temporary housing in alignment with existing zoning and land-use regulations.

- Promote the importance of adequate homeowner's and renter's insurance coverage, including special insurance policies such as flood. Encourage residents to read and understand what the policy covers and under what conditions.

- Pre-identify open space that may be used for temporary housing, given zoning regulations and transportation access.

Transition Phase Activities

- Coordinate with emergency shelters to facilitate the transition of shelter clients into transitional housing by sharing information on available temporary and short-term options, such as available hotel/motel rooms.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Identify temporary housing options and sites, which may include conventional solutions (e.g., manufactured and/or modular homes and conversion of commercial, retail, or light industrial sites) and/or more unconventional solutions (e.g., collaboration with hotel chains, Airbnb hosts, and neighbor home-shares).

- Work with the Land Use Planning and Development Committee to identify opportunities for placement of temporary structures, such as tents and mobile homes, on public property.

- Coordinate information sharing with VOAD partners and the Health and Social Services Committee to ensure displaced residents are connected to available resources.

- Work with the Health and Social Services Committee to develop public outreach materials to educate the community on FEMA housing assistance programs (if an Individual Assistance declaration is received).

- Work with the Land Use Planning and Development Committee to develop a public education campaign to raise homeowners' awareness of reconstruction scams and unscrupulous practices by contractors who may prey on people desperate to repair their homes.

- Coordinate with nonprofits and VOAD partners that provide housing assistance programs (e.g., cleanup, repairs, or financial assistance) to support outreach and ensure the maximization of resources.

- Coordinate with the Land Use Planning and Development Committee to ensure rebuilding activities are in accordance with codes (including codes that may have been amended post-disaster). Collaborate on public outreach if conflicts arise.

- Provide staffing and subject-matter expertise, as requested, to Community Resources Centers to provide housing resources, information, and referrals.

- Coordinate with the Land Use Planning and Development Committee to develop recommendations related to housing reconstruction and relocation, such as phasing.

- Identify long-term housing needs, including affordable housing needs, and potential recovery programs and strategies.

Long-term Recovery Activities

- Support the Long-term Housing Subcommittee to implement disaster housing recovery programs and projects.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of displaced residents utilizing short-term housing;

- Number of displaced residents in need of short-term housing; and

- Number of units of short-term housing available.

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

Case Study: Housing Lessons Learned from Hurricane Harvey

Hurricane Harvey in 2017 was one of the largest storms in U.S. history and affected approximately 30 percent of Texans—displacing more than 750,000 people from their homes. Texas Governor Greg Abbott decided to tap the resources of the Texas General Land Office (GLO) to partner with FEMA to solve the looming short-term housing crisis. With the devastating fires in California later that year, FEMA's resources were running thin. Texas Land Commissioner George P. Bush, who led the FEMA–GLO Partnership, said in an article that two overarching challenges tested housing recovery efforts.

The first challenge involved the definition of "temporary housing" in the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), which lays out how FEMA conducts disaster relief and recovery. Under the act, "temporary housing" is housing on wheels, meant to be hauled away at some point. This narrow definition (written in 1988) omits many innovative short-term housing solutions that have been developed in the last few decades, including using stackable shipping containers, small modular homes, expandable core unit housing, and even recreational vehicles as temporary housing solutions.

Other emerging technologies can provide new and innovative approaches to generating temporary housing units. An Austin-based 3-D printing company can produce a 600- to 800-square-foot home in less than 24 hours for around $4,000. These options are much more cost-effective than the traditional temporary FEMA trailer and can be left as a permanent solution (Bush, 2019). This also speaks to a flaw in the law that says temporary housing funds are meant to rebuild or replace housing to its original condition—not to improve it—thus leaving innovative housing solutions in violation of federal law. FEMA has ruled these technologies go well beyond what is permissible (Natsios, 2018).

The second challenge involved information sharing, or the lack thereof. Existing federal privacy law prohibits FEMA from sharing information on residents who have applied and been denied federal assistance. Post-Harvey, local leadership had no way of knowing which residents were denied and why and were therefore not able to assist them either in correcting the FEMA application or finding alternative sources of assistance.

Many applicants who are denied by FEMA become frustrated and discouraged. They may give up, not realizing there could be alternatives to FEMA assistance.

The current FEMA application process is convoluted, and applicants can be denied because of a minor and easily corrected mistake. Additionally, federal law prohibits local leaders from sharing personal identifiable information of eligible residents with anyone outside the program. For Harvey recovery, that meant that local leaders were not able to easily connect those with unmet needs to volunteer groups and others with donated resources (Bush, 2019). This presents a real challenge because local organizations with resources have a difficult time reaching those with the greatest need.

The solution to these two issues seems obvious: a revision to the current federal law. Under the Stafford Act, Congress should expand the definition of what is eligible for temporary housing funds. As it is written now, temporary housing must be able to be moved, and temporary housing funds are not to be used toward any housing that appears to be an improvement upon the original housing.

Another recommendation made in the GLO's *Texas at Risk* report is for Congress to amend the Privacy Act to allow state and local officials the ability to access disaster applicant information regardless of whether the applicant was accepted or denied. Alternatively, a box could be added to the FEMA form so applicants can opt to allow their data to be shared with state and local officials (Natsios, 2018). Addressing these two issues would go a long way toward ensuring displaced residents get the assistance they need.

Reference

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Natsios, A. (2018). *Hurricane Harvey: Texas at risk*. Texas General Land Office. Accessed February 21, 2020.

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

Long-term Housing

Objective

Identify and implement long-term and/or permanent housing solutions for those displaced by the disaster.

Overview

The Long-term Housing Subcommittee works closely with the Housing Availability and Needs Assessment and Short-term Housing Subcommittees. It is included as a separate function from short-term housing because it is important to begin exploring long-term and permanent housing solutions early in the recovery process.

Pre-disaster Preparedness Activities

- Engage local community development organizations, housing affordability advocacy organizations, and private sector real estate partners in disaster recovery planning to identify strategies for post-disaster housing.

- Promote the importance of adequate homeowner's and renter's insurance coverage, including special insurance policies such as those related to flooding. Encourage residents to read and understand what the policy covers and under what conditions.

Transition Phase Activities

- Track disaster housing recovery activities to anticipate long-term housing needs, including affordable housing needs.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Coordinate with the Land Use Planning and Development Committee to develop recommendations related to housing reconstruction and relocation, such as phasing.

- Identify long-term housing needs, including affordable housing needs, and potential recovery programs and strategies.

Long-term Recovery Activities

- Continue to provide staffing and subject-matter expertise at community resource and information centers to provide housing resources, information, and referrals.

- Coordinate with the Land Use Planning and Development Committee to ensure rebuilding activities are in accordance with codes (including codes that may have been amended post-disaster). Collaborate on public outreach if conflicts arise.

- Coordinate with the Land Use Planning and Development Committee and Economic Committee to consider existing comprehensive plans, economic development plans, special district plans, and neighborhood plans to identify potential focus areas for residential redevelopment.

- Work with the Land Use Planning and Development Committee to estimate costs associated with the implementation of long-term housing programs, including buy-outs.

- Identify and/or establish programs to provide technical assistance and financial tools that assist homeowners in rebuilding or relocating.

- Coordinate with the local Housing Authority and advocacy organizations to monitor the supply of affordable housing and Section 8 vouchers.

- Work with the Land Use Planning and Development Committee to explore incentive programs and/or enhanced zoning or building code regulations to promote the reconstruction of housing developments that incorporate stronger building design.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of new construction housing units (rental, single-family, multi-family).

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4. Infrastructure

Mission

The Infrastructure Committee is responsible for coordinating repairs and restoration of essential systems and structures. It oversees restoration and rebuilding of roads, bridges, and other public transportation infrastructure and infrastructure related to rail, gas, electric, communications, water, and other utilities. The Committee works to coordinate short-term restoration of services as quickly as possible while also planning long-term rebuilding of the systems and structures related to infrastructure to improve the region's resiliency and efficiency.

Recovery Objectives

- Perform damage assessments of infrastructure assets and oversee repairs and reconstruction.

- Evaluate infrastructure recovery needs and required resources and capabilities.

- Oversee debris management.

- Restore mobility and critical services, including utilities and transportation.

- Consider long-term resiliency and the function of structures and systems during the rebuilding of public facilities and other infrastructure systems.

Local Recovery Partners

Local Organization	Damage Assessment	Debris Management	Utility Restoration	Transportation Restoration	Public Facility Repair
Department of Public Works	Lead	Lead	Support	Lead	Support
Building Services Department					Lead
Engineering Division	Support			Support	Support
Sanitation Services		Support			
Communications and Information Technology Department			Support	Support	
Department of Transportation				Support	
Office of Emergency Management	Lead	Lead	Support	Support	Support
Department of Water	Support		Lead		
Private Utilities • Area Electrical Companies (e.g., Oncor, Direct Energy, CoServ) • Area Gas Companies (e.g., CoServ, Atmos Energy) • Area Communications Companies (e.g., AT&T, Verizon, Frontier)	Lead/ Support	Lead/ Support	Lead/ Support		

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Infrastructure Committee. The federal agencies listed have committed to these roles per the NDRF.

Effective September 1, 2019, HB6 enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, and the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System – Texas Division of Emergency Management • Texas Department of Transportation • Texas Public Utilities Commission	Coordinating Agency • U.S. Army Corps of Engineers Primary Agencies • Federal Emergency Management Agency • U.S. Army Corps of Engineers • U.S. Department of Energy • U.S. Department of Homeland Security • U.S. Department of Transportation
Supporting Organizations • Gulf Coast Waste Disposal Authority • North Texas Tollway Authority • Texas A&M Transportation Institute • Texas Board of Professional Engineers • Texas Center for Educational Technology • Texas Commission on Environmental Quality • Texas Department of Information Resources • Texas Department of Public Safety • Texas General Land Office • Texas Groundwater Protection Committee • Texas Health and Human Services Commission • Texas Military Department • Texas Office of Public Utility Counsel • Texas Parks and Wildlife Department • Texas Railroad Commission • Texas Soil and Water Conservation Board • Texas Water Development Board • Toxic Substances Coordinating Committee • Various Groundwater Conservation Districts • Various Regional Water Authorities	Supporting Organizations • Delta Regional Authority • U.S. Department of Agriculture • U.S. Department of Commerce • U.S. Department of Defense • U.S. Department of Education • U.S. Department of Health and Human Services • U.S. Department of Homeland Security • U.S. Department of Housing and Urban Development • U.S. Department of the Interior • U.S. Department of the Treasury • U.S. Environmental Protection Agency • Federal Communications Commission • General Services Administration • Nuclear Regulatory Commission • Tennessee Valley Authority

Damage Assessment

Objective

Evaluate impacts, identify needed repairs, and oversee the restoration of publicly-owned buildings, roads, water and wastewater infrastructure, bridges, etc.

Overview

The Infrastructure Damage Assessment Subcommittee comprises experts in the fields of transportation, transit, communications, water, power, gas, facilities, and general infrastructure. The damage assessment team requires qualified and credentialed representatives from public works, roads, utilities, information technology, communications, etc.

Pre-disaster Preparedness Activities

- Build agreements, processes, and technological supports to ensure that infrastructure-related GIS systems and staff can coordinate and share information easily.

- Annually review critical infrastructure system statuses to stay informed of new risks and challenges to the existing system.

Transition Phase Activities

- Continue to maintain proper cost documentation processes to ensure eligibility for reimbursement.

- Continue damage assessments of public facilities, water and wastewater infrastructure, roads, bridges, etc. and detail damages to the extent possible.

- Protect public safety by identifying structures or areas for which access should be restricted.

- Prepare maps locating infrastructure damages, power outages, road closures, and other conditions.

- Prioritize repairs to damaged infrastructure that impedes efforts to provide entry or essential services to disaster-affected areas.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Prepare for the arrival of state and federal agencies to conduct the joint PDA. Provide local representatives and qualified engineers to accompany PDA teams. The local representatives are responsible for ensuring that all damaged areas, estimated repair costs, insurance entitlements, and hazard mitigation opportunities are identified.

- Use a Public Property Site Assessment Worksheet (DEM-25) and a map in the local assessment of infrastructure losses.

- Provide transportation for PDA teams. Secure large-capacity vehicles that can accommodate up to six passengers.

- Determine the level of insurance coverage for affected structures.

- Review damage assessments of individual resources and aggregate this information to understand damage by neighborhood and asset type across the jurisdiction.

- Coordinate engineering surveys of major damage, identify repair and reconstruction needs, and estimate associated costs.

Long-term Recovery Activities

- Continue proper documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Continue to coordinate engineering surveys of major damage, identify repair and reconstruction needs, and estimate associated costs.

Information Collection

Proposed measures of recovery progress in this area include:

- Damage assessment information including minor, major, and destroyed (e.g., impact assessment and PDA);

- Number and status of repairs and reconstruction, including mapping as needed; and

- Total grant funding received for infrastructure repair and/or reconstruction and capital projects.

Debris Management

Objective

Oversee movement, temporary storage, disposal, and documentation of debris management operations during disaster recovery.

Overview

The Debris Management Subcommittee requires experts and equipment to execute debris removal, transfer, and disposal. This Subcommittee must maintain meticulous cost documentation to ensure federal reimbursement for debris management costs.

Pre-disaster Preparedness Activities

- Create a Disaster Debris Removal Plan, including the execution of a standby contract with a debris removal company and/or a disaster debris ordinance. Note: Per HB6, an emergency management program maintained by a county or in which a county participates must provide for debris management (A. Flores, Texas Association of Counties, 2019).

- Designate responsible departments and staff to oversee debris removal.

- Locate potential staging sites, create a list of pre-identified sites, and determine permit requirements.

- Execute and manage stand-by debris removal contracts.

Transition Phase Activities

- Ensure proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Conduct debris removal activities with appropriate equipment. Activate debris management contract (if applicable) and oversee implementation of debris-removal operations including collection, disposal, and monitoring of debris.

- Conduct roadway and public right-of-way debris removal.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Ensure proper documentation processes to ensure eligibility for reimbursement.

- Coordinate debris removal activities, including oversight of contractors.

- Provide information on proper disposal and recycling programs and processes to residents and businesses.

Long-term Recovery Activities

- Ensure proper documentation processes to ensure eligibility for reimbursement.

- Coordinate debris removal activities, including oversight of contractors.

- Oversee debris disposal site capacity issues.

- Coordinate with the U.S. Army Corps of Engineers and any involved state agencies responsible for clearing debris from waterways, as necessary.

Information Collection

Proposed measures of recovery progress in this area include:

- Debris removal status and timeline; and

- Federal reimbursement for debris removal costs.

Utility Restoration

Objective

Support local utility service providers and private utility companies to restore water, wastewater, telecommunications, electricity, natural gas, and other utility services per the plans of individual infrastructure holders and in adherence to state and federal regulations.

Overview

The Utility Restoration Subcommittee should include experts in telecommunications, information technology, power, gas, and water who can monitor repairs by qualified engineers, work crews, and contractors to resume services. Close coordination with private sector companies providing these services is critical, as is the timely and accurate conveyance of public information.

Pre-disaster Preparedness Activities

- Conduct recovery planning and exercises with private-sector utility providers and establish information sharing agreements with public and private utility holders that extend into the recovery phase.

- Work with telecommunications and IT companies to pre-identify critical assets and equipment for the region. Pre-plan communications infrastructure repair processes so that they can occur in tandem with the recovery of transportation corridors.

- Examine energy-assurance plans and work with energy providers to identify priority customers. Communicate with priority customers and other infrastructure owners to develop a regional energy restoration plan.

- Establish plans for fuel distribution and supply for critical service providers during recovery.

- Establish a mapping program that tracks the operational status of water and wastewater conveyance lines.

- Develop a plan for the temporary distribution of potable water across the region while water infrastructure is repaired or rebuilt.

- Evaluate alternatives to and establish policy direction for the potential bypassing of wastewater into local water bodies at locations that will be the least detrimental to the environment.

- Develop a plan for providing portable or composting toilets for residents and businesses, perhaps using kits. Convene public health, solid waste, and wastewater stakeholders to establish strategies and roles for addressing this issue. Establish a post-disaster code that allows the use of portable and composting toilets.

Transition Phase Activities

- Continue coordination of response phase power restoration activities and support utility companies as requested.

- Identify priority areas for restoration of systems that support the safety and welfare of vulnerable populations (e.g., electric power and water systems for hospitals and healthcare facilities).

- Provide utility restoration timelines and service outage information to the public.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue utility restoration activities and provide information on utility restoration timelines, service outages, and utility payment relief programs to the public.

Long-term Recovery Activities

- Coordinate repairs, reconstruction, and restoration of critical utilities infrastructure. If conducting a large-scale repair program, ensure that close scrutiny of costs and quality of repairs are maintained throughout the program.

- Identify hardening and mitigation opportunities to incorporate into reconstruction plans. Encourage investment in redundant assets to maintain communications and supply temporary service.

- Manage capital projects, as needed.

Information Collection

Proposed measures of recovery progress in this area include:

- Customers without power, water, wastewater, gas, Internet, and cellular services; and

- Timeline for resumption of service.

Transportation Restoration

Objective

Restore transportation infrastructure and services within the jurisdiction, including local and state-owned roads, bridges, and public transit systems.

Overview

The Transportation Restoration Subcommittee monitors operations of qualified engineers, work crews, and contractors to repair and restore the service of roads, highways, bridges, and public transit. The focus is on appropriate prioritization of repairs to ensure the safety and well-being of responders and the public. Clear, consistent public information is required to ensure the community is informed of the status of the various transportation systems throughout the recovery process.

Pre-disaster Preparedness Activities

- Develop and manage a list of transportation infrastructure and identify points of contact from relevant agencies, departments, companies, etc.

- Conduct planning efforts among emergency management, public works, and the state Department of Transportation to identify priority routes for transporting commodities into the jurisdiction and establishing processes for coordination and communications to reopen routes as quickly as possible.

- Engage major employers to identify transportation interdependencies that impact business supply chains.

- Encourage major employers to include workforce transportation in BCPs.

Transition Phase Activities

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Coordinate repairs and interim provisions to establish safe ingress and egress routes for response vehicles and equipment.

- Provide ongoing public status updates on the accessibility of roads and bridges and a timeline for re-entry.

- Conduct priority repairs to inroads for healthcare facilities and providers, supermarkets, home improvement stores, and gas stations to support continuity of supply chains and public re-entry into the area.

- If road capacity is constrained, limit access by private vehicles and/or work with local bus networks to expand public transit service and add additional routes.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Coordinate repairs and interim provisions to establish safe ingress and egress routes for response vehicles and equipment.

- Provide ongoing status updates on the accessibility of roads and bridges and a timeline for re-entry.

- Continue to conduct priority repairs of inroads for healthcare facilities and providers, supermarkets, home improvement stores, and gas stations to support continuity of supply chains and public re-entry into the area.

- If road capacity is constrained, continue to limit access by private vehicles and/or work with local bus networks to expand public transit service and add additional routes.

- Consider alternative uses for existing transportation infrastructure, such as enabling pedestrian or bicycle transportation on roadways. Also consider working with local or state park departments to open urban trails to limited vehicular traffic while roadways are repaired.

- Complete repairs to local roads through public works and contract support. Coordinate with state Department of Transportation to make repairs to state roads.

- Support engineering surveys of major damage, identify repair and reconstruction needs, and estimate associated costs.

- Coordinate procurement and contracting for significant repairs that exceed local capabilities.

Long-term Recovery Activities

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Coordinate public assistance projects, as needed.

- Support engineering surveys of major damage, identify repair and reconstruction needs, and estimate associated costs.

- Coordinate procurement and contracting for significant repairs that exceed local capabilities.

- Identify hardening and mitigation opportunities to incorporate into reconstruction plans, including those included in the local Hazard Mitigation Plan.

- Coordinate repairs and reconstruction of roads and bridges. If conducting a large-scale repair program, ensure that close scrutiny of costs and quality of repairs are maintained throughout the program.

- Provide ongoing updates on the status of transportation infrastructure and public transit service.

- Work with the Land Use Planning and Development Committee to integrate sustainable transportation strategies into recovery efforts and identify opportunities to support multi-modal transportation systems (e.g., bike lanes, expanded bus services and/or light rail, and retrofits to pedestrian crossings.)

- Manage capital projects, as needed.

Information Collection

Proposed measures of recovery progress in this area include:

- Repair timeline of damaged roads and bridges;

- Project funding for transportation reconstruction and improvement projects; and

- Status of transportation reconstruction and improvement projects.

Public Facility Repair

Objective

Coordinate efforts to repair and restore operations of local government-owned facilities.

Overview

The Public Facility Repair Subcommittee requires city/county staff who are familiar with government buildings and other city- and county-owned facilities, such as jails, event halls, and museums. This team should include local government staff that oversee maintenance and operations of facilities, such as general services and facilities management staff.

Pre-disaster Preparedness Activities

- Develop and manage an inventory of public buildings and identify points of contact for the relevant department(s). Maintain a directory of existing facility repair contractors (i.e., those that have been vetted through the procurement process).

- Maintain COOP plans for all government buildings.

- Conduct assessments of public buildings to identify mitigation measures and include as part of the current Hazard Mitigation Plan.

Transition Phase Activities

- Continue to maintain proper cost documentation processes to ensure eligibility for reimbursement.

- Implement departmental COOP plans and continuity of government (COG) plans and relocate to alternate facilities, where possible, to resume essential government functions.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Continue implementation of departmental COOP and COG plans as long as necessary.

- Complete minor repairs to facilities through existing city and county maintenance staff.

- Provide ongoing updates to the public about the status of public facilities and the timeline for reestablishing operations.

Long-term Recovery Activities

- Continue proper cost documentation of all infrastructure recovery efforts to ensure eligibility for reimbursement.

- Coordinate Public Assistance program activities with FEMA.

- Provide the public with periodic updates on facility status until operations and services are fully restored.

- Conduct engineering surveys of major damage, identify repair and reconstruction needs, and estimate associated costs.

- Coordinate procurement and contracting for significant repairs that exceed the capabilities of maintenance staff.

- Work with the Land Use Planning and Development Committee to identify hardening and mitigation opportunities to incorporate into reconstruction plans. Consider projects included in the most up-to-date local Hazard Mitigation Plan.

- Coordinate Public Assistance projects, as needed.

- Manage capital projects, as needed.

Information Collection

Proposed measures of recovery progress in this area include:

- Operation status of public facilities; and

- Status of repairs to and/or reconstruction of public facilities.

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5.   Land Use Planning and Development

Mission

The Land Use Planning and Development Committee's goal is to facilitate repair and reconstruction in an orderly, safe, and timely manner. The Committee provides recommendations on appropriate procedures and requirements for rebuilding and works to ensure quality construction and adherence to codes. It also reviews and recommends potential updates or revisions to current land use strategies in order to lessen the impacts from future damages.

Recovery Objectives

- Perform damage assessments.

- Conduct building inspections.

- Engage community members in rebuilding efforts.

- Facilitate the review of current and future land use strategies.

- Ensure pre-disaster planning and mitigation activities are ongoing.
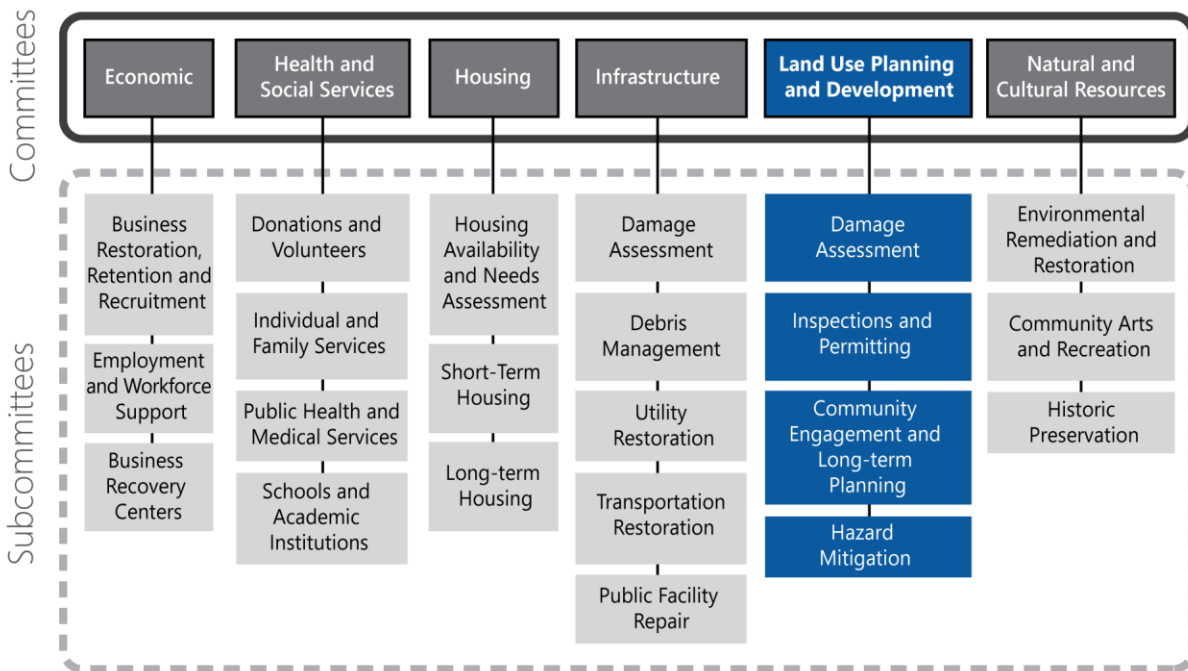
Local Recovery Partners

Local Organization	Damage Assessment	Inspections and Permitting	Community Engagement and Long-term Planning	Hazard Mitigation
Planning/Zoning	Support	Support	Lead	Lead
Building Inspections Department	Lead	Lead	Support	Support
Community Development Commission			Support	Support
Office of Emergency Management	Lead	Support	Support	

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Land Use Planning and Development Committee. The federal agencies listed have committed to these roles per the NDRF.

Effective September 1, 2019, HB6 enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, and the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System–Texas Division of Emergency Management • Texas General Land Office • Texas Water Development Board	Coordinating Agency • U.S. Department of Homeland Security/Federal Emergency Management Agency Primary Agency • U.S. Department of Housing and Urban Development
Supporting Organizations • Texas Division of Emergency Management • Texas Floodplain Management Association • Texas Commission on Environmental Quality	Supporting Organizations • American Planning Association • American Red Cross • Corporation for National and Community Service • International City/County Management Association • National Voluntary Organizations Active in Disaster • Small Business Administration • U.S. Department of Agriculture • U.S. Department of Commerce • U.S. Department of Education • U.S. Department of Energy • U.S. Department of Health and Human Services • U.S. Department of the Interior • U.S. Department of Justice • U.S. Department of Transportation • U.S. Environmental Protection Agency • • U.S. Army Corps of Engineers • U.S. Access Board

Damage Assessment

Objective

Provide staffing and expertise to identify, catalog, and assess the level of damage sustained after a disaster.

Overview

The Damage Assessment Subcommittee should be made up of members with expertise in collecting damage assessment data and data collection technologies such as windshield surveys. Subcommittee members require access to current maps, general working knowledge of the area, communications, and information-collection technologies. Local jurisdictions should be prepared to provide transportation to damage assessment teams and possibly law enforcement escorts if deemed necessary.

Pre-disaster Preparedness Activities

- Participate in pre-disaster recovery and mitigation planning and provide recommendations to mitigate or lessen impacts from damage.

- Determine damage assessment processes and data collection methods. Establish data sharing protocols.

- Establish damage assessment teams and determine activation protocols

- Identify items needed for damage assessment teams (e.g., forms, color-coded cards, cameras, cell phones, tablets) and supporting resources (e.g., county maps, temporary permit forms).

- Coordinate with Planning Department GIS specialists to access readily available maps that could be used for conducting impact and damage assessments.

- Maintain pre-disaster information such as maps, photos, and other documents for pre-disaster conditions.

- Review local, state, and federal regulations for operating unmanned aerial vehicles (i.e., drones) for damage assessment. If possible, integrate drone technology into pre- and post-disaster documentation procedures.

Transition Phase Activities

- Activate damage assessment teams to collect information on the amount, extent, and type of damage caused by the disaster using windshield surveys, aerial surveys, etc. and the Public Property Site Assessment Worksheet (TDEM form DEM-25).

- Work with local GIS resources to obtain current maps for affected areas and ensure damage assessment data is uploaded to maps to share damage intelligence.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue to utilize damage assessment teams to collect information on the amount, extent, and type of damage caused by the disaster using windshield surveys, aerial surveys, etc. and the Public Property Site Assessment Worksheet (TDEM form DEM-25).

- Maintain damage assessment data and GIS systems.

- Work with the Texas Department of Insurance to collect data on insurance coverage for affected areas.

- Ensure data sharing mechanisms exist among damage assessment teams and pertinent local, state, and federal partners.

- Provide a local representative to accompany any federal and/or state inspection teams conducting PDAs to ensure that all damaged areas, estimated repair costs, insurance entitlements, and hazard mitigation opportunities are identified. Additionally, transportation for assessment teams should be provided.

- Coordinate with the Housing Committee to evaluate the need for construction moratoria, reconstruction phasing, and other policies to pace construction.

Long-term Recovery Activities

- Develop processes to collect, analyze, and present disaster damage assessment results to incorporate into public-facing resources for elected officials and the public and recommend mitigation measures that could lessen impacts in the future.

- Identify properties or structures for abatement that constitute a public safety hazard or that have endured damage beyond repair.

- Consider the cost benefit of future technology implements to enhance damage assessments (e.g., increased camera coverage, use of drones, electronic field data collection and transfer).

Information Collection

Proposed measures of recovery progress in this area include:

- Damage assessment information including minor, major, and destroyed (e.g., impact assessment and PDA);

- Number and status of home and business repairs and reconstruction, including mapping as needed; and

- Number of insured versus uninsured properties.

Inspections and Permitting

Objective

Oversee safe repair, restoration, and rebuilding of damaged structures.

Overview

The Inspections and Permitting Subcommittee requires certified building inspectors and engineers to carry out inspections and requires staff knowledgeable in permitting policies and procedures. Staff should have access to policy makers to enact temporary amendments to permitting procedures or development restrictions such as temporary moratoria, when necessary.

Pre-disaster Preparedness Activities

- Develop policies and procedures for expedited permit processing.

- Develop policies and procedures for waiving or reducing permit and development fees post-disaster.

- Collaborate with the Texas Commission on Environmental Quality to develop guidelines for emergency generator permit waivers to allow longer use of emergency generators for critical infrastructures.

- Collaborate with adjacent jurisdictions to identify additional building inspector and engineer resources and develop a mutual aid process.

- Ensure existing data collection and management systems are able to handle increased inspection data loads.

Transition Phase Activities

- Assess the need for additional certified inspectors and engineers and implement a mutual aid process if necessary.

- Establish a method to indicate building safety status with building owners and the general public (e.g., green, yellow, or red placards to communicate okay to occupy, restricted entry, or unsafe to occupy).

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Continue to monitor the need for additional certified inspectors and engineers and implement a mutual aid process if necessary.

- Implement processes to expedite permitting (potentially including waiving fees, implementing surge staffing in permitting office, establishing field permitting centers, etc.).

- Develop procedures and criteria for allowing temporary permits for campers, recreational vehicles, and temporary shelters on property owners' land for a specified period.

- Depending on the size of the affected area and accessibility to the permitting office, consider opening a separate or mobile recovery one-stop shop permitting center exclusively for dealing with disaster repair and rebuilding permits.

- Provide affected residents with information on proper permitting procedures and required contractor licensing to prevent the use of unlicensed contractors.

Long-term Recovery Activities

- Coordinate with the Damage Assessment Subcommittee to cross-reference damage assessment data to permit applications to ensure property owners are making progress on repairs. Gaps may indicate that affected residents are not receiving sufficient resources for permit applications or there are other barriers to progress, such as fees or contractor shortages.

- Widely distribute information on any amended construction permit application processes to the public.

- Monitor possible contractor scams by unlicensed contractors by maintaining a list of known unlicensed contractor offenders and provide outreach to residents to warn them against scams and unlicensed contractors.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of permit applications processed;

- Average time for permit processing and approval; and

- Number of generator waivers processed.

Community Engagement and Long-term Planning

Objective

Work with the community to identify recovery objectives and priorities and execute the vision for a new and improved community.

Overview

The Community Engagement and Long-term Planning Subcommittee requires close coordination with other Land Use Planning and Development Subcommittees. This Subcommittee can be led jointly by the Emergency Management Department and the local Planning Department. The Planning Department can leverage its ongoing efforts to develop local comprehensive and neighborhood plans to inform post-disaster recovery planning and support development of the Recovery Strategy. This Subcommittee facilitates public meetings, forums, and other community events to gather community input and feedback on recovery progress. Members of the Subcommittee need a strong understanding of the makeup of the community, including the complex social, economic, and demographic factors related to recovery. Local nonprofits and VOAD can serve as a great resource to help the Subcommittee engage the whole community in post-disaster recovery planning.

Pre-disaster Preparedness Activities

- Identify existing land-use regulations that may inhibit repair and rebuilding processes to address widespread damage.

- Develop and adopt a pre-disaster recovery ordinance, possibly to include a temporary building moratorium, that will go into effect once there is a disaster declaration; or develop draft ordinance language that will be ready for adoption immediately following a disaster.

- Establish a connection with local VOAD and work with them to create an inventory of nonprofits in the area and resources they can provide during disasters.

- Coordinate a local community preparedness engagement and planning effort with public forums and town hall meetings focused on disaster preparedness.

- Prepare neighborhood-specific overviews, including data on languages spoken, age ranges, economic data, and vulnerable populations, to anticipate particular recovery needs of various neighborhoods.

- Encourage a whole community effort by conducting community-based response and recovery planning workshops, trainings, and events.

- Develop a pre-disaster public campaign to discourage unsolicited donations.

- Promote individual and family disaster preparedness, especially for people with disabilities and others with access and functional needs.

Transition Phase Activities

- Monitor recovery activities.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Initiate community engagement by coordinating events that solicit input and feedback on community objectives for recovery and rebuilding.

Long-term Recovery Activities

- Conduct public meetings to engage the community on rebuilding issues and gather public input on recovery priorities.

- Review existing zoning and ordinance provisions to identify possible roadblocks and ways to lift restrictions to expedite recovery efforts.

- Coordinate information sharing and resources with state and federal partners, including the FEMA Community Planning and Capacity Building RSF.

- Engage the Recovery Task Force, other Recovery Committees, and local recovery partners—including government organizations, VOADs, and NGOs—to identify long-term recovery programs, gaps in recovery efforts, and other projects and initiatives to inform the Recovery Strategy.

- Develop a draft Recovery Strategy document, coordinate internal reviews, and conduct public outreach for public input. Prepare and present the Strategy for adoption by elected officials.

- Track Recovery Strategy implementation and milestones and prepare updates and reports for elected officials and the public.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of public meetings and public forums;

- Number of community outreach events; and

- Progress of Recovery Strategy development and implementation.

Case Study: Community Engagement and Social Recovery Following the Christchurch Earthquake

The Waimakariri District Council of New Zealand published *Social Recovery 101: A Guide for Local Social Recovery* (2018) to document lessons learned from the 2010 earthquake that struck the Canterbury region. The 7.1–magnitude earthquake caused considerable damage to Kaiapoi, Pines Beach, and Kairaki in the Waimakariri District of New Zealand and parts of the nearby city of Christchurch. Up to 25 percent of Kaiapoi businesses were affected, 5,000 people lost water and sewer services, and 33 percent of the housing stock in Kaiapoi and most homes in Pines Beach and Kairaki were severely damaged.

The Waimakariri District Council immediately set the tone for social recovery with the Council's Chief Executive stating, "Our success will not be measured by the kilometers of pipe and road that we replace, but by how our people come through this."

The Council understood the importance of putting people and community well-being at the center of its recovery program. This was largely accomplished via face-to-face, one-on-one communication by sending staff and volunteers to knock on residents' doors in a highly organized and coordinated fashion.

Beginning on the second day of the recovery phase and continuing daily for 2 weeks, local government staff were sent to knock on doors to relay the latest information to citizens. This allowed them to directly interact with the affected community and inform the Council of specific needs and concerns. Takeaways from this approach included the following:

- Local leadership must be responsive and flexible to ongoing community needs.
- Recovery requires a holistic, coordinated approach.
- Putting boots on the ground in the affected communities builds trust, openness, and transparency.
- Community engagement is a critical part of recovery.
- The local government must collaborate with nonprofits and the private sector to be successful.

Successful strategies used to engage the community throughout the recovery process included:

- Direct face-to-face delivery of newsletters to affected residents by Council staff and volunteers in the early phase of recovery;
- Special issues of the local newspaper paid for by the Council;
- Frequently updated question-and-answer documents;
- Specially branded local recovery webpage, email, and online and hardcopy newsletters;
- Regular community meetings to allow people to fulfill their need to gather and share experiences;
- Notice boards in affected communities;
- Regular meetings with residents' associations; and
- Multiple methods of communication, including roundtables, surveys, workshops, focus groups, on-site engagement, and public meetings.

One area of special emphasis was what the Council termed "psychosocial support" to disaster survivors. This was accomplished by reaching out to the community to provide one-on-one support and identify community needs via a robust Pastoral Care Team of door-knockers. Large numbers of volunteers, many from faith-based communities in the District (but outside the main affected area), offered to visit households. The Council recognized the importance of ensuring this effort was well-organized and coordinated. To this end, dates and areas were identified, a call for volunteers was sent to churches and other organizations, and volunteers were instructed to gather at a pre-identified meeting place at a specific time. This door-knocking Pastoral Care Team effort was organized by local officials who:

- Developed and assigned a person to maintain a database that tracked streets visited and a timeline of return visits while providing regular and ongoing reports;
- Assigned specific streets to specific two-person teams of volunteers;
- Provided volunteers with a questionnaire to fill out when speaking with residents;
- Supplied maps, vests, and lanyards to the door-knocking volunteers; and
- Provided daily safety briefings, including expected conditions of the areas where the volunteers were being deployed.

Information collected from the door-knockers was summarized in the database, and any serious psychosocial concerns were passed to the appropriate staff for follow-up. In the early days following the disaster, door-knockers identified infrastructure problems as well, allowing for a quick response to serious sewerage or flooding issues. Additionally, the Pastoral Care Team of door-knockers provided important information to residents about upcoming meetings, events, or new support options.

The Pastoral Care Team was not only a short-term solution; it continued operation for an impressive 3.5 years, continuing to identify people requiring assistance or support. As late as March 2014 (four years after the event), it was reported that Pastoral Care Team volunteers were still knocking on approximately 50 doors per week.

The Pastoral Care Team also spread information on community events specifically organized to promote social recovery of the community. The District hired an events coordinator who was already well connected with the community and tasked her with organizing free or affordable, safe, and fun events for all members of the community. The events included small street parties, a garden tour and high tea for the elderly, a family friendly Zumba evening, and neighborhood BBQs. Within the first 24 months, more than 3,500 people from the earthquake-affected areas attended various events, all of which were promoted under the brand *Rise Up Kaiapoi Community Events*. Participant feedback forms showed that events for seniors, children, and youth were the best attended. The community events played an important role in bringing the community together and helped keep morale up for years following the disaster.

Reference

Waimakariri District Council. (2018). *Social recovery 101: A guide for local social recovery*. Accessed February 21, 2020.

CASE STUDY: CRITICAL FUNCTIONS IN CONTEXT

Hazard Mitigation

Objective

Identify opportunities to build resiliency and incorporate hazard mitigation actions into recovery.

Overview

The Hazard Mitigation Subcommittee should comprise individuals who contributed to pre-disaster hazard mitigation planning and review. Subcommittee members will work with the Office of Emergency Management to evaluate how approved mitigation plans can be integrated into recovery efforts and what additional mitigation opportunities exist.

Pre-disaster Preparedness Activities

- Coordinate development of an approved local Hazard Mitigation Plan and update it per FEMA requirements.

- Conduct and maintain risk assessment and hazard mitigation planning, including assessing risks and mitigation strategies for environmental resource protection and public health concerns.

- Participate in pre-disaster mitigation planning and develop potential long-term relocation strategies, which can include things such as buy-outs, property swaps, and other incentives to facilitate relocation.

- Develop strategies to build in future resilience, sustainability, and universal accessibility through mitigation goals.

- Ensure that mitigation strategies and goals are incorporated into, and do not conflict with, other local, state, and federal plans.

Transition Phase Activities

- Monitor recovery progress.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Monitor recovery progress.

Long-term Recovery Activities

- Coordinate with FEMA to manage Environmental and Historic Preservation (EHP) review processes as needed.

- Review the existing Hazard Mitigation Plan to identify potential opportunities for mitigation projects and programs.

- Develop processes to collect, analyze, and present disaster damage assessment results to incorporate into public-facing resources for elected officials and the public and recommend mitigation measures that could lessen impacts in the future.

- Review and assess repetitive-loss properties and consider abatement options and/or potential ordinance or zoning changes.

- Identify mitigation goals, objectives, and proposed projects to incorporate into the Recovery Strategy.

- Support coordination of projects funded by FEMA Hazard Mitigation Assistance programs.

Information Collection

Proposed measures of recovery progress in this area include:

- Amount of federal mitigation funding received.

- Status of hazard mitigation projects undertaken with recovery funding.

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6.   Natural and Cultural Resources

Mission

The Natural and Cultural Resources Committee works to remediate disaster impacts to ecosystems and culturally-significant places in compliance with applicable state and federal regulations.

Recovery Objectives

- Rehabilitate damaged environmental resources to return them to their pre-disaster condition or better.

- Restore and preserve culturally and historically significant buildings, monuments, and places.

- Coordinate with private-sector companies, conservation groups, and nonprofit organizations to assist with recovery activities.

- Maintain compliance with all environmental regulatory requirements of state and federal agencies.
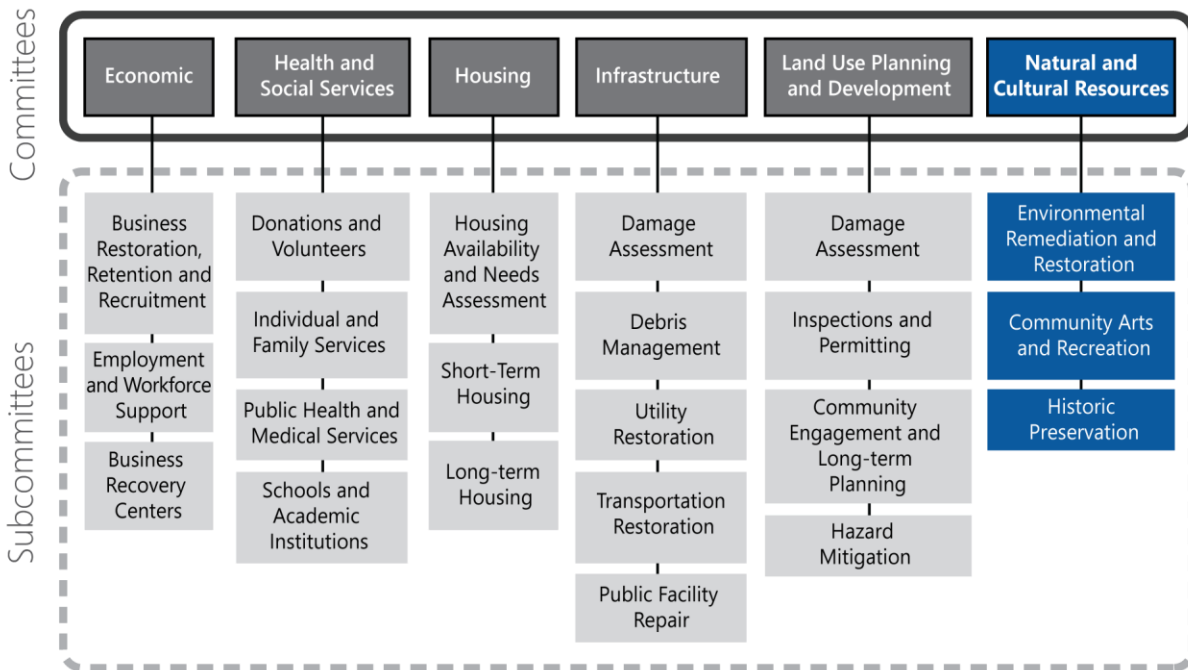
Local Recovery Partners

Local Organization	Environmental Remediation and Restoration	Community Arts and Recreation	Historic Preservation
Office of Environmental Quality	Lead		
Office of Cultural Affairs		Lead	
Cultural Nongovernmental Organizations (e.g., Cultural Advocacy Coalition, Center for the Arts)		Support	Support
Parks and Recreation Department	Support	Support	
Neighborhood Associations and Business Districts		Support	Support
University Cultural and Natural Resource Departments	Support	Support	Support
Public Libraries		Support	
Museums, Art Galleries, Performing Arts Venues		Support	
Historical Society or Historic Preservation Commission		Support	Lead

State and Federal Recovery Partners

The table below lists state and federal recovery partners that may coordinate efforts with the Natural and Cultural Resources Committee. The federal agencies listed have committed to these roles per the NDRF.

Effective September 1, 2019, HB6 enacts the Disaster Recovery Task Force through TDEM to help local communities throughout the long-term recovery period. The Task Force may use the resources of the Texas A&M University System, including the Texas A&M AgriLife Extension Service, the Texas A&M Engineering Extension Service, and the Texas A&M Forest Service, and other state agencies and organized volunteer groups. As this Task Force is in the initial stages of development, the table below lists state agencies that could potentially be called upon by the Task Force to provide resources to support these critical functions.

Texas (Potential Recovery Partners)	Federal Recovery Partners
Primary Agencies • Texas A&M University System – Texas Division of Emergency Management • Texas Commission on the Arts • Texas Parks and Wildlife Department	Coordinating Agency • U.S. Department of the Interior Primary Agencies • Federal Emergency Management Agency • U.S. Department of the Interior • U.S. Environmental Protection Agency
Supporting Organizations • Texas Commission on Environmental Quality • Texas Commission on Fire Protection • Texas Forest Service • Texas Historical Commission • Texas Historical Foundation • Texas Library and Archives Commission • Texas Preservation Board • Texas Wildlife Services	Supporting Organizations • Corporation for National and Community Service • Council on Environmental Quality • Delta Regional Authority • General Services Administration • Heritage Emergency National Task Force • Institute of Museum and Library Services • Library of Congress • National Archives and Records Administration • National Endowment for the Arts • National Endowment for the Humanities • U.S. Army Corps of Engineers • U.S. Department of Agriculture • U.S. Department of Commerce • U.S. Department of Homeland Security/Cybersecurity and Infrastructure Security Agency

Environmental Remediation and Restoration

Objective

Ensure proper cleanup of the natural environment from contamination resulting from the disaster and take steps to avoid further damage.

Overview

The Environmental Remediation and Restoration Subcommittee requires representatives with knowledge of environmental regulations, hazardous materials, permitting processes, and waste removal and management. This Subcommittee will coordinate and oversee cleanup activities and liaise with state and federal environmental quality regulators.

Pre-disaster Preparedness Activities

- Conduct emergency planning, training, and exercises for response and recovery from potential contamination incidents.

Transition Phase Activities

- Support response operations to stabilize disaster impacts to environmental resources and prevent further damage.

- Provide subject-matter experts to assist with damage assessments to evaluate disaster-related impacts to environmental resources.

- Support debris management operations to ensure that they do not cause environmental damage (such as a release of hazardous substances).

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Provide local representatives to the joint PDA team, as needed, to evaluate disaster-related impacts to environmental resources.

- Identify environmental repair and restoration needs and available personnel assets. Estimate local, state, and federal resource requirements.

- Communicate the importance of adhering to proper environmental regulations and development processes to property owners, infrastructure holders, contractors, builders, and others.

- Develop and disseminate public messaging for preventing environmental contamination during residential and business cleanup activities.

- Provide ongoing support to debris management operations to ensure that they do not cause environmental damage (such as a release of hazardous substances).

- Conduct ongoing monitoring and testing for potential contamination of soil, water, etc.

- Coordinate with state and federal agencies to ensure compliance with environmental regulations.

Long-term Recovery Activities

- Continue public outreach to promote environmental stewardship during recovery efforts.

- Continue providing support to debris management operations to ensure that they do not cause environmental damage (such as a release of hazardous substances).

- Continue monitoring and testing for potential contamination of soil, water, etc.

- Develop and implement an action plan with identified restoration projects and programs (e.g., cleanup of waterways, reconstitution of wetlands, conversion of flood-prone areas to open space). Outline implementation actions, costs, and timeline. Ensure all projects and programs comply with state and federal regulatory requirements and receive proper approvals.

- Identify federal, state, NGO, and private programs and/or funding opportunities to implement the action plan.

- Coordinate with FEMA to manage EHP review processes.

- Support Public Assistance projects, as applicable.

- Proactively advise and support other Recovery Committees in meeting environmental requirements.

Information Collection

Proposed measures of recovery progress in this area include:

- Adherence to federal requirements; and

- Progress of cleanup activities and recovery projects.

Community Arts and Recreation

Objective

Repair damaged cultural resources and restore arts and recreation programming.

Overview

The Community Arts and Recreation Subcommittee involves participation from representatives of art galleries, museums, and recreational programs. This Subcommittee focuses on retaining, restoring, and rebuilding the unique cultural assets that are important to the community and identifying opportunities to expand them. These assets can help a community reflect, heal, and celebrate during recovery.

Pre-disaster Preparedness Activities

- Create a database of cultural resources and points of contact.

- Convene community arts and philanthropic organizations to discuss the protection of cultural assets and structures and how disasters might impact them.

- Identify opportunities for hazard mitigation measures to increase resilience of culturally significant buildings.

- Encourage arts and cultural organizations to plan for continuity of operations and preservation of valuable items or resources.

Transition Phase Activities

- Participate in damage assessment activities, as requested, to evaluate disaster impacts to cultural resources (e.g., parks, open spaces, museums and galleries, performing arts venues, landmarks, etc.).

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Identify repair and restoration needs for culturally significant structures, documents, and objects. Estimate needed local, state, and federal resources.

- Implement measures to repair damage to structures and protect and preserve culturally significant documents and objects.

- Prioritize reopening libraries and other popular public spaces that can serve as recovery information centers and Internet access hubs.

- Work with the Land Use Planning and Development Committee to identify parks and open spaces that can be temporarily repurposed for recovery efforts such as parking for mobile homes, equipment staging, donation storage and distribution, and information centers.

Long-term Recovery Activities

- Prioritize repair of popular community facilities, such as sports fields and recreation centers, to support the well-being of residents.

- Coordinate public engagement opportunities with residents to identify opportunities for improving local arts and recreation programs and facilities during recovery.

- Identify ways that private donors, endowments, and philanthropic organizations can support recovery projects that expand arts and cultural programs.

- Use abandoned structures and vacant shop windows for visual art displays and identify vacant lots and other outdoor sites to locate community projects and gathering spots.

- Leverage existing mobile programming, such as library bookmobiles, to bring arts and culture to neighborhoods and community gatherings.

- Hold celebratory recovery events at community arts and recreation facilities to engage the whole community.

Information Collection

Proposed measures of recovery progress in this area include:

- Status of arts facilities and recreation areas;

- Attendance at community events; and

- New arts and recreation facilities and programs.

Historic Preservation

Objective

Support efforts to maintain the historic character of the community during the recovery and rebuilding process.

Overview

The Historic Preservation Subcommittee facilitates timely and proper repairs to historic sites and properties. This Subcommittee must have knowledge of the local historic preservation and restoration guidelines and processes, applicable covenants and regulations, and permitting and construction procedures.

Pre-disaster Preparedness Activities

- Identify strategies to streamline regulatory approvals and permitting for repairs and reconstruction in historic districts.

- Perform a vulnerability assessment for listed historical sites to determine potential risks to hazards.

Transition Phase Activities

- Coordinate stabilization efforts to salvage historic sites that are not completely destroyed.

- Coordinate the secure removal and storage for historic artifacts to prevent further damage.

Short-term Recovery Activities (initiated within 8 weeks post-disaster)

- Coordinate with the Damage Assessment Subcommittee to obtain status of historic properties.

- Provide owners of historic buildings with information for repair and restoration in accordance with historic preservation guidelines.

Long-term Recovery Activities

- Coordinate with FEMA to manage EHP review processes, as needed.

- Determine long-term strategies to restore damaged historic sites and enhance resilience to future disasters.

Information Collection

Proposed measures of recovery progress in this area include:

- Number of historic sites and properties pre-disaster;

- Number of damaged or destroyed historic properties;

- Number of culturally or historically sensitive artifacts damaged or destroyed; and

- Number of restored historic properties, sites, or artifacts.

VII. Research References

Agency/Author	Title	Date	Description
Australia and New Zealand School of Government	From Emergency to Urgency: the Canterbury Earthquake Recovery Authority	2011	This resource is a case study of earthquakes in New Zealand.
Australian Council for International Development	The Real Story Ends in Landfill	2017	This resource provides research into what drives people to donate unsolicited goods and how to use public communications effectively to re-route donations.
Beaufort County, SC, Council; Beaufort County Recovery Task Force	Beaufort County Disaster Recovery Plan	2008	The purpose of this plan is to provide Beaufort County with a strategic plan to guide disaster recovery and redevelopment actions and decision making. Additionally, the plan identifies Recovery Function actions that can be implemented prior to a disaster to expedite recovery.
Boulder, CO, Office of Emergency Management	Boulder Office of Emergency Management All-Hazards Recovery Plan	2013	The functions and concepts within the Boulder Recovery Plan generally align with those of the State of Colorado. This plan was developed by the Boulder Multi-Agency Coordination Group, local nongovernmental agencies, private-sector organizations, and faith-based organizations. It aligns with Colorado's Disaster Recovery Plan, Wide Area Recovery and Resiliency Program Recovery Plan, and the NDRF.
Boulet-Desbareau, P.	Unsolicited In-Kind Donations and Other Inappropriate Humanitarian Goods (UN Office for the Coordination of Humanitarian Affairs [OCHA])	2013	This report details a strategic plan related to unsolicited in-kind donations and other inappropriate relief goods.
Brantley County, GA, Emergency Management Agency	Brantley County Disaster Recovery and Redevelopment Plan: Base Plan	2016	This recovery plan outlines Brantley County's approach to recovery in alignment with the NDRF. This plan was prepared as part of a grant award to the Georgia Department of Natural Resources from the National Oceanic and Atmospheric Administration (NOAA) Office of Coastal Management.

Agency/Author	Title	Date	Description
Broward County, FL.	Broward County Disaster Housing Strategy	2012	This plan outlines Broward County's procedures for reacting promptly to save lives and protect property when threatened or hit by a disaster or major emergency.
Brown, J.	Churches Play a Growing Role in Emergency Management (*Emergency Management*)	2015	This article in *Emergency Management* magazine highlights examples of faith-based activities during response and recovery.
Bush, George P., Texas Land Commissioner	What We Learned in Texas After Hurricane Harvey	2019	This article highlights the challenges encountered by the Texas General Land Office as it managed housing recovery after Hurricane Harvey.
California Governor's Office of Emergency Services	A Guide for Establishing a Local Assistance Center	2013	This was developed to act as a guide for jurisdictions planning for local assistance centers following disasters.
Chatham County, GA, Emergency Management	Chatham County Disaster Recovery Plan: Recovery Base Plan	2015	This recovery plan outlines Chatham County's approach to recovery in alignment with the NDRF. This plan was prepared as part of a grant awarded to the Georgia Department of Natural Resources from the NOAA Office of Coastal Management.
Chatham County, GA, Emergency Management	Chatham County Redevelopment Plan	2016	The purpose of this plan is to provide Chatham County with a single reference for guiding actions and decision making during the difficult long-term disaster redevelopment period and to detail actions that can be taken before a disaster occurs to speed the recovery and redevelopment processes. This recovery plan was prepared as part of a grant awarded to the Georgia Department of Natural Resources from the NOAA Office of Coastal Management.
City of Dallas, TX, Office of Emergency Management	Local Mitigation Action Plan 2017–2022	2017	The purpose of this plan is to document and analyze the City of Dallas' vulnerability to hazards, both natural and technical, and lessen their impacts based on the assumption that each of the hazards will occur at least once within the next 10 years. This document represents a cumulative understanding of the hazards that have an effect on the City of Dallas, including hazards with or without tangible impacts on its population or property. This document identifies the hazards to which the City of Dallas is vulnerable, states their probability and potential impact based on historical records, and identifies projects to lessen their vulnerability over the 5-year life of this plan.

Agency/Author	Title	Date	Description
City of Durham and Durham County, NC	City of Durham and Durham County Pre-Disaster Recovery Plan (not publicly available)	2019	This document presents the overall approach for recovery operations following a disaster that affects the Durham community.
City of Grand of Prairie, TX	Grand Prairie, Texas, Hazard Mitigation Action Plan (Draft)	2010	This plan complies with the requirements of the Federal Disaster Mitigation Act of 2000 and provides data on vulnerabilities within the region and mitigation actions to reduce risk.
City of Houston, TX, Mayor's Office	Hurricane Harvey Recovery: A Progress Report	2019	This report provides an overview of recovery efforts in the City of Houston following Hurricane Harvey and a framework for future recovery planning efforts.
City and County of Los Angeles, Calif.	City/County/Operational Area Recovery Annex Template	2012	This template is designed to help recovery planners in the Los Angeles Region develop a recovery annex and/or supplementary appendices based on preparedness needs.
Committee on Homeland Security	Houston Strong: Hurricane Harvey Lessons Learned and the Path Forward	2018	This testimony compilation is from the April 9, 2018, hearing "Houston Strong: Hurricane Harvey Lessons Learned and the Path Forward" before the U.S. House of Representatives Committee on Homeland Security.
Council on Foundations	Disaster Preparedness and Recovery Plan	N/A	This plan outlines the Council's strategy for responding to an emergency or disaster.
County of Los Angeles, CA, Public Health	Planting the Seeds for Recovery: Disaster and Pandemic Planning for Nonprofits Continuity and Recovery Plan Template	2011	This template is intended to be used in addition to the jurisdiction's Emergency Preparedness and Response Plan.
County of San Diego, CA, Office of Emergency Services	San Diego County Concept of Operations for Commodities Donations	2017	This concept of operations plan (CONOPS) lays out the operational area's approach to management of physical donations following a major disaster.
County of San Diego, CA, Office of Emergency Services	San Diego County Concept of Operations for Financial Donations	2016	This CONOPS lays out the operational area's approach to management of financial donations following a major disaster.
County of San Diego, CA, Office of Emergency Services	San Diego County Concept of Operations for Reunification	2016	This CONOPS lays out the operational area's process for establishing reunification activities following a major disaster.
County of San Diego, CA, Office of Emergency Services	Operational Area Recovery Plan	2007	This multi-jurisdictional plan addresses disaster-related problems on a regional basis.

Agency/Author	Title	Date	Description
Dallas County, TX, Office of Homeland Security & Emergency Management	Dallas County Hazard Mitigation Action Plan	2015	This plan complies with the requirements of the Federal Disaster Mitigation Act of 2000 and provides data on vulnerabilities within the region and mitigation actions to reduce risk.
Denver, CO, Urban Area Security Initiative (UASI)	Denver UASI All-Hazards Regional Recovery Framework	2012	This framework was developed through a collaborative effort by the Denver UASI and the State of Colorado in partnership with the U.S. Department of Homeland Security's Science and Technology Directorate and other federal agencies called the Wide Area Recovery and Resiliency Program. It is designed to lay the foundation for a regional and collaborative recovery approach.
Disaster Housing Recovery Coalition	Top Priorities for any Disaster Recovery Package	2019	The Disaster Housing Recovery Coalition, comprised of 800 local, state, and national organizations, urges Congress to ensure that federal disaster recovery resources reach all affected households, including those with the lowest incomes who are often the hardest hit by disasters and have the fewest resources to recover afterwards. This document provides the top priorities for Congress to include in any disaster recovery package.
Edgington, S.	Disaster Planning for People Experiencing Homelessness	2009	Local and state emergency management plans often fail to meet the needs of people who are homeless. This publication provides an overview of important issues to consider when planning for the needs of people experiencing homelessness during disasters.
Edwards, A	Churches Creating Safety Plan for Tornadoes on Supercell Sunday (KFOR-TV)	2013	This news report describes church efforts to create resiliency from tornadoes.
Fairfax County, VA	Fairfax County Pre-Disaster Recovery Plan	2012	This plan establishes the overall roles and responsibilities for emergency recovery operations, as well as the CONOPS for the County. It is intended to be used in conjunction with established operational procedures, plans, and protocols.
Federal Emergency Management Agency (FEMA)	2009 Disaster Housing Plan	2009	This plan describes FEMA's approach to working with federal partners, states, territories, tribes, local communities, and individual disaster survivors to meet disaster-related sheltering and temporary housing needs. The plan is based on key concepts further defined in the National Disaster Housing Strategy and is intended to serve as an operational guide to FEMA's housing mission for 2009 disasters.

Agency/Author	Title	Date	Description
FEMA	2017 Hurricane Season FEMA After-Action Report	2018	The 2017 Atlantic Hurricane Season was one of the most active seasons in U.S. history, causing widespread damage to, or destruction of, critical infrastructure, livelihoods, and property. Between April and November, there were 17 named storms, 10 of which became hurricanes. This report focuses on three of these storms that made landfall as major hurricanes in the U.S. in quick succession. Specifically, this report focuses on the response and initial recovery from August 25 to November 30, 2017.
FEMA	A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action	2011	This document presents a foundation for increasing individual preparedness and engaging with members of the community as vital partners for enhancing the resiliency and security of the nation through a whole community approach. It is intended to promote greater understanding of the approach and to provide a strategic framework to guide all members of the emergency management community as they determine how to integrate whole community concepts into their daily practices.
FEMA	Core Capability Development Sheets	2018	These development sheets describe the core capabilities for the recovery mission area.
FEMA	Developing and Maintaining Emergency Operations Plans: Comprehensive Preparedness Guide 101, Version 2.0	2010	This guide helps planners at all levels of government in their efforts to develop and maintain viable, all-hazards, all-threats emergency plans.
FEMA	Disability Inclusive Emergency Management: Recommendations for the Preparedness, Response, Recovery and Mitigation Needs of the Whole Community	2013	This resource provides FEMA training to highlight the role of FEMA's Office of Disability Integration and Coordination and outlines how to ensure inclusive whole community planning for emergency management.

Agency/Author	Title	Date	Description
FEMA	Disaster Temporary Housing Operational Guide	2011	This guide describes FEMA's approach to working with federal partners, states, territories, tribes, voluntary agencies, local communities, and individual disaster survivors to prepare for and respond to disaster-related sheltering and temporary housing needs. This Guide is based on key concepts further defined in the National Disaster Housing Strategy and supersedes the 2009 Disaster Housing Plan and all previous Disaster Housing Plans.
FEMA	Fact Sheet: Individuals and Household Programs	2019	This fact sheet provides information on financial and direct services to eligible individuals and households affected by a disaster who have uninsured or underinsured necessary expenses and serious needs.
FEMA	Fact Sheet: Myths vs. Facts - FEMA's Transitional Sheltering Assistance Program	2018	This fact sheet dispels certain myths regarding how federally assisted housing assistance works.
FEMA	Fact Sheet: National Shelter System	2011	This fact sheet provides information on FEMA's National Shelter System, a coordinated nationwide database of emergency shelter information where thousands of profiles of potential shelter resources and virtually any type of facility associated with caring for disaster survivors are maintained.
FEMA	FEMA Guidance for Local Government: Local Disaster Recovery Manager	N/A	This guidance sheet provides information on LDRMs and their organization of long-term recovery efforts to organize, coordinate, and advance recovery at the local level.
FEMA	Local Capacity Building Support Catalog: Training, Toolkits, Technical Assistance for Local Governments	2018	This catalog contains resources useful to local governments recovering from severe disasters. It is a compilation of ongoing trainings, toolkits, and technical assistance offered by more than 40 federal and state departments, professional and trade associations, and national nonprofit organizations.
FEMA	Long-Term Recovery Community Planning: A Self-Help Guide	2005	This guide provides step-by-step guidance for implementing a long-term community recovery planning program based on experience obtained and lessons learned by teams of planners, architects, and engineers over a period of several years and multiple experiences in comprehensive long-term community recovery.

Agency/Author	Title	Date	Description
FEMA	National Disaster Housing Strategy	2009	The National Disaster Housing Strategy describes how the nation currently provides housing to those affected by disasters. It summarizes the many sheltering and housing efforts in the United States and the broad array of organizations that are involved in managing these programs. The Strategy also outlines key principles and policies that guide the disaster housing process. The Strategy charts a new direction that disaster-housing efforts must take to better meet the emergent needs of disaster victims and communities.
FEMA	National Disaster Recovery Framework 2nd Ed.	2016	This framework establishes a common platform and forum for how the whole community builds, sustains, and coordinates the delivery of recovery capabilities.
FEMA	National Incident Management System	2020	NIMS provides a systematic, proactive approach to guide departments and agencies at all levels of government, NGOs, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, to reduce loss of life and property and harm to the environment.
FEMA	National Preparedness Goal	2015	Presidential Policy Directive 8: National Preparedness (PPD-8) describes the nation's approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States.
FEMA	National Response Framework, 4th Edition	2019	This document is a guide to how the nation responds to all types of disasters and emergencies.
FEMA	FEMA New Recipients of Disaster Grants Guide	2019	This guide provides an overview of how to obtain federal grant funds.
FEMA	Pre-Disaster Recovery Planning Guide for Local Governments	2017	This planning guide is designed to help local governments prepare for recovery by developing pre-disaster recovery plans that follow a process to engage members of the whole community, develop recovery capabilities across governmental and nongovernmental partners, and ultimately create an organizational framework for comprehensive local recovery efforts.
FEMA	Public Assistance Program and Policy Guide	2018	This in-depth guide provides information regarding federal disaster funding.

Agency/Author	Title	Date	Description
FEMA	Survivor Centric Emergency Management: Integrating the Access and Functional Needs of the Whole Community Before, During and After Disasters	2014	This resource provides FEMA training that integrates the needs of people with disabilities and others with access and functional needs into emergency management planning.
Fernandez, L., Barbera, J., and Van Dorp, J.	Strategies for Managing Volunteers during Incident Response: A Systems Approach *Homeland Security Affairs* 2, article 9	2006	This article presents a systems-based approach to planning for spontaneous volunteer management in disasters.
Fessler, Pam	Thanks, But No Thanks: When Post-Disaster Donations Overwhelm (National Public Radio)	2013	This report provides information on how unsolicited donations can cause a secondary disaster.
Flores, A.	Disaster Relief, Response, and Recovery Bills Cross the Finish Line (Texas Association of Counties)	2019	This is a legislative brief on Hurricane Harvey–related legislation for disaster relief, response, and recovery that has now become law. The law is based on policy recommendations made by the Governor's Commission to Rebuild Texas.
Florida Department of Community Affairs Florida Division of Emergency Management	Post-Disaster Redevelopment Planning: State of Florida Initiative	2019	This guide addresses the basics of what a Post-Disaster Redevelopment Plan is, current requirements and the different forms they can take, proven methods for the initial planning process, suggestions for topics and issues to include in a plan, and considerations for the implementation of and future updates to a jurisdiction's plan.
Florida Housing Coalition	Florida Disaster Management: Guide for Housing	2018	This guide is designed to prepare staff who are working with the State Housing Initiatives Partnership program on their roles and responsibilities before and after a disaster.
Florido, A.	Advocates Struggle to Help Undocumented Immigrants Find Relief After Harvey (National Public Radio)	2017	This article discusses recovery for undocumented residents in Houston.
Garland, TX, Office of Emergency Management	Hazard Mitigation Action Plan	2017	This plan complies with the requirements of the Federal Disaster Mitigation Act of 2000 and provides data on vulnerabilities within the region as well as mitigation actions to reduce risk.

Agency/Author	Title	Date	Description
Garnett, J.D., and Moore, M.	Enhancing Disaster Recovery: Lessons from Exemplary International Disaster Management Practices Journal of Homeland Security and Emergency Management 7(1)	2010	This paper builds upon previous work highlighting exemplary practices in international disaster management as an avenue to inform U.S. disaster-management policy (Moore, Trujillo, et al., 2009) by examining in detail illustrative practices specifically related to long-term recovery and redevelopment from disasters across multiple countries and the principles underlying their effectiveness.
Georgetown Climate Center	Building Gulf Coast Resilience: Lessons from the Hurricane Sandy Recovery	2018	This case study details the Federal Coordinating Team approach used to facilitate Hurricane Sandy recovery, which could prove a useful model for federal agencies in the Gulf Coast region.
Georgia Department of Natural Resources and Georgia Emergency Management and Homeland Security Agency	Post-Disaster Recovery and Redevelopment Planning: A Guide for Georgia Communities	2014	This guide addresses the basics of a Post-Disaster Redevelopment Plan, its current requirements, the different forms the plan can take, proven methods for the initial planning process, and suggestions for topics and issues to include in a plan.
Glynn County, GA	Disaster Recovery and Redevelopment Plan, Brunswick-Glynn County: Pre- and Post-Disaster Strategies for Managing Long-Term Recovery	2017	This recovery plan outlines the Glynn County approach to recovery. This plan was prepared as part of a grant awarded to the Georgia Department of Natural Resources from the NOAA Office of Coastal Management.
Grantmakers Concerned with Immigrants and Refugees	The Impact of Natural Disasters on Immigrants and Refugees in the United States: What Funders Need to Know in the Immediate Term	2017	This policy brief provides analysis and recommendations for Texas and Florida to inform philanthropic organizations' response to the impact of disasters on immigrants and refugees.

Agency/Author	Title	Date	Description
Hook, K.	<u>Rising from the Wreckage: Lessons Learned from the 2010 Haitian Earthquake Response</u> (The Applied Anthropologist)	2012	In many ways, the 2010 Haitian earthquake presented a perfect storm scenario, as the natural disaster negatively affected an already fragile society, compounding preexisting vulnerabilities. Due to myriad complex challenges, it is unsurprising that post-response evaluations of the humanitarian response have offered many critiques. As such criticism is carefully considered with the aim of improving future responses, three overarching lessons learned are presented: the need to cultivate and use organizational capacity, the need to develop and support strong leadership, and the need to improve and standardize data coordination. This resource presents suggestions for strengthening these areas while advocating that changes must further take place now within the institutional culture of the humanitarian enterprise.
Institute of Medicine	<u>Healthy, Resilient, and Sustainable Communities After Disasters: Strategies, Opportunities, and Planning for Recovery</u>	2015	This report focuses on providing guidance for leveraging disaster recovery funds to increase the physical health of residents within affected communities.
Kim, V.	<u>Los Angeles' Disaster Plans Discriminate Against People with Disabilities, Judge Rules</u> (*Los Angeles Times*)	2011	This article examines a lawsuit brought against the City of Los Angeles pertaining to the lack of integration and planning for those with disabilities in emergency plans.
Lincoln Institute of Land Policy	<u>After Great Disasters: How Six Countries Managed Community Recovery</u>	2017	This book synthesizes 2 decades of research on the roles of various levels of government in successful disaster recovery and rebuilding after some of the largest disasters in the United States, Japan, China, New Zealand, Indonesia, and India, and observations in several other countries around the world.
Los Angeles, CA, Emergency Management Council	Los Angeles County Operational Area Recovery Plan	2017	This document details procedures necessary to fully operationalize disaster recovery. Its purpose is to organize recovery operations to enable a robust and sustained response to the needs of residents and businesses across the Los Angeles Operational Area.
Los Angeles County, Calif.	<u>Los Angeles County Operational Area Donations Management Annex</u>	2010	This plan details the Los Angeles Operational Area's approach to donations management and ensures the most effective allocation of donated resources for the maximum benefit.
Los Angeles County, Calif.,	<u>Los Angeles County Operational Area Family Assistance Center Plan</u>	2014	This plan details the Los Angeles Operational Area's approach to the Family Assistance Center model for large- and small-scale disasters.

Agency/Author	Title	Date	Description
Los Angeles County, CA, Department of Public Health	Strategies for Inclusive Planning in Emergency Response	2017	The purpose of this document is to increase access to resources and tools that facilitate more comprehensive inclusion of planning for people with access and functional needs, including people with disabilities and other groups disproportionately affected in emergencies.
Los Angeles, CA, Office of Mayor Eric Garcetti	City of Los Angeles to Lead Recovery Efforts After End of Aliso Canyon Gas Leak	2016	This public message from the Mayor of Los Angeles outlines the local assistance center that was opened to address needs in consequence of the Aliso Canyon gas leak.
McKinsey & Company	Improving Disaster Recovery: Lessons Learned in the United States	2015	This article helps state and local leaders understand some of the most critical actions they must take to establish a successful recovery.
National Academies Press	Healthy, Resilient, and Sustainable Communities After Disasters: Strategies, Opportunities, and Planning for Recovery	2015	This report is intended to focus the attention of those individuals and organizations involved in planning for and carrying out disaster recovery activities and those involved in planning for and building healthy communities on leveraging the millions and sometimes billions of dollars associated with disaster events more effectively to maximize citizens' health.
National Council on Disability (NCD)	Effective Emergency Management: Making Improvements for Communities and People with Disabilities	2009	NCD's purpose is to promote policies and practices that guarantee equal opportunity for all individuals with disabilities, regardless of the nature or severity of the disability, and to empower individuals with disabilities to achieve economic self-sufficiency, independent living, and integration into all aspects of society. Under its congressional mandate, NCD is charged with the responsibility to gather information on the development and implementation of federal laws, policies, programs, and practices that affect people with disabilities. This report is a result of that mandate.
National Low-Income Housing Coalition	Disaster Housing Recovery Coalition	2019	This website provides policy recommendations and resources related to federal disaster recovery efforts for affected households, including the lowest-income seniors, people with disabilities, families with children, veterans, people experiencing homelessness, and other at-risk populations who are often the hardest hit by disasters and have the fewest resources to recover afterwards.

Agency/Author	Title	Date	Description
National Organization on Disability	Functional Needs of People with Disabilities: A Guide for Emergency Managers, Planners, and Responders	2009	This guide highlights key disability concerns to officials and experts responsible for emergency planning in their communities. It seeks to assist them in developing plans that consider the needs and insights of people with disabilities before, during, and after emergencies. It is designed to help emergency managers, planners, and responders make the best use of resources in the emergency preparedness planning process, including resources for people with disabilities.
Natsios, A.	Hurricane Harvey: Texas At Risk (Texas General Land Office)	2018	The purpose of this report is to capture lessons learned from the General Land Office's response to Hurricane Harvey, with a focus on housing, which requires policy changes or administrative actions.
New Zealand Department of the Prime Minister and Cabinet	Whole of Government Report: Lessons from the Canterbury Earthquake Sequence	2016	This report references more than 200 published reports, resulting in around 50 lessons identified across five topic areas: recovery governance arrangements, recovery legislation, land decisions, insurance response, and the Horizontal Infrastructure Rebuild Program.
New Zealand Initiative	Recipe for Disaster: Building Policy on Shaky Ground	2018	The New Zealand Initiative is an independent public policy think tank supported by chief executives of major New Zealand businesses. They believe in evidence-based policy and are committed to developing policies that work for all New Zealanders. Their mission is to help build a better, stronger New Zealand. They are taking the initiative to promote a prosperous, free, and fair society with a competitive, open, and dynamic economy. They develop and contribute bold ideas that will have a profound, positive, long-term impact. With this timely report, the New Zealand Initiative has confronted aspects of Christchurch's experience of the Canterbury Earthquake Sequence that must be well understood if people are to truly learn the lessons of what occurred.
New Zealand Ministry of Civil Defence and Emergency Management (CDEM)	Focus on Recovery: A Holistic Framework for Recovery in New Zealand	2005	This resource addresses the national CDEM strategy by providing principles and a framework for recovery management.
North Central Texas Council of Governments (NCTOG)	Economic Recovery	2016	This site presents links to a variety of guidance and tools to help local governments and businesses prepare for and recover from disasters. NCTCOG developed the guidance document, "Economic Resilience: A Guide for Business and Government" included in the toolkit.

Agency/Author	Title	Date	Description
Price Water House Coopers	Effective Disaster Recovery: What Lessons Can We Learn from Australia's Black Saturday Brushfires	2010	This document provides lessons learned, which can be used to assist recovery in the event of disaster or, more importantly, assist in disaster recovery planning.
Rebuild Iowa Office (RIO)	Iowa Disaster Recovery Lessons Learned	2011	This document covers the Rebuild Iowa Advisory Commission, RIO, and all recovery programs used during the recovery process
Rebuild Texas	Eye of the Storm: Report of the Governor's Commission to Rebuild Texas	2018	This resource provides an assessment of federal, state, and local response and recommendations for how Texas can be better prepared to withstand future disasters. The report is both a record of a milestone event in the state's history and a guide to "future-proofing" the state to mitigate the impact of future Harveys.
San Diego County, CA, Office of Emergency Services	Establishing Local Assistance Centers	2011	This plan provides a reference to assist in the development of one or more resource center facilities known as Local Assistance Centers (LACs).
Santa Rosa County, FL, Division of Emergency Management	Santa Rosa County Disaster Housing Plan	2010	Santa Rosa County is dedicated to the continued health and welfare of its citizens and community. With this mission in mind, the County understands that, to ensure its continued prosperity, its citizens must have proper housing to continue their daily life functions and remain active participants in County life.
Save the Children	Haiti Earthquake: Five Years On	2015	This resource provides a discussion of children's welfare 5 years after the major earthquake in Haiti.
Seattle, WA., Office of Emergency Management	Comprehensive Emergency Management Plan and Disaster Recovery Framework (available from the City of Seattle Plans site)	2015	This Recovery Framework was developed by the City of Seattle.
Southeast Disaster Recovery Partnership	For the Long Haul: Public-Private Partnerships for Long-Term Disaster Recovery	2018	This white paper examines public-private partnerships active in long-term disaster recovery.
Texas Council for Developmental Disabilities	People First Language	2019	This webpage presents a list of accepted people-first language when referring to persons with disabilities and others with access and functional needs.

Agency/Author	Title	Date	Description
Texas Department of Public Safety; Texas Division of Emergency Management	Texas Long-Term Recovery Guide [no longer available as of August 2019]	2015	This guide is intended to provide local governments with a framework for implementing their own long-term community recovery planning process after a significant disaster event.
Texas Division of Emergency Management	Executive Guide	2019	This guide has been developed as a resource for executives who are tasked with providing for the safety and security of their respective communities.
The World Bank	Building Back Better: How to Cut Natural Disaster Losses by a Third	2018	This resource explores how countries can strengthen their resilience to natural shocks through stronger, faster, and more-inclusive post-disaster reconstruction.
The World Bank	Learning from Megadisasters: Lessons from the Great East Japan Earthquake	2014	This report summarizes the lessons learned from the Great East Japan Earthquake and Tsunami in 2011 and provides guidance to other disaster-prone countries for mainstreaming disaster risk management in their development policies.
Trust for America's Health	The Critical Role of Public Health Programs in Responding to Natural Disasters	2018	This fact sheet summarizes the role of public health in disaster preparations and recovery.
Unified San Diego County Emergency Services Organization and County of San Diego, CA	Operational Area Recovery Plan	2007	This plan is designed to provide guidance to the County of San Diego and jurisdictions, agencies, organizations, and businesses interacting with the county. Each jurisdiction and special district in the operational area must develop an individual recovery plan or recovery annex to complement existing emergency operations plans. The plan should be used as a template and will support or supplement the recovery plans prepared and maintained by each local government.
United Nations Office for the Coordination of Humanitarian Affairs, Environmental Emergencies Section	Disaster Waste Management Guidelines	2011	These guidelines, developed collaboratively by the Swedish Civil Contingencies Agency and the joint UN Environment Programme/Office for the Coordination of Humanitarian Affairs environment unit, aim to share best current knowledge and lessons learned on disaster waste-management.
Urban Institute	CDBG-DR Housing Recovery: Challenges, Best Practices, Lessons Learned, and Recommendations	2019	This guide presents challenges identified by Community Development Block Grant Disaster Recovery (CDBG-DR) grantees in planning and implementing their housing recovery programs.

Agency/Author	Title	Date	Description
U.S. Department of Housing and Urban Development	Community Development Block Grant Disaster Recovery: CDBG-DR Overview	2019	This PowerPoint presentation provides an overview of the CDBG-DR Recovery Process, including grantee roles and requirements.
USAID: Center for International Disaster Information	Best Practices Toolkit	2017	This website lists many tools to encourage effective donations management.
U.S. Government Accountability Office (GAO)	Federal Assistance for Permanent Housing Primarily Benefited Homeowners; Opportunities Exist to Better Target Rental Housing Needs	2010	GAO's objectives were to review how federal disaster-related assistance for permanent housing has been provided to homeowners and rental property owners, the extent to which federally funded programs have responded to the needs of homeowners and rental property owners, and challenges that homeowners and rental property owners have faced in applying for and using federal assistance and the potential options for addressing these challenges. To address these objectives, GAO analyzed documentation for key programs and program data, and interviewed federal, state, and local officials regarding the challenges associated with these programs.
Volunteer Florida: Governor's Commission on Volunteerism and Service	Unaffiliated Volunteer Management: Florida's Record-Breaking 2004 Hurricane Season	2005	This report highlights recommendations made to address the challenges of and improve Florida's capacity for managing unaffiliated volunteers.
Waimakariri Social Council	Social Recovery 101: A Guide for Local Social Recovery	2018	This guide outlines social recovery following the 2017 New Zealand earthquake.
Westfall, N., Nelson, E., and Moorhead, B.	Time and Treasure: Faith-Based Investment in Hurricane Harvey Response (Texas Interfaith Center for Public Policy)	2019	This report builds on research and conclusions from two prior reports by other organizations, including the 2019 report from the National Council of Churches of Christ titled, "Climate and Church: How Global Climate Change Will Impact Core Church Ministries," which focused on how climate change would intensify worldwide demand for disaster assistance, food assistance, and immigration services.

Agency/Author	Title	Date	Description
Wu, J.Y., and Lindell, M.K.	Housing Reconstruction After Two Major Earthquakes: The 1994 Northridge Earthquake in the United States and the 1999 Chi-Chi Earthquake in Taiwan *Disasters* 28(1)	2004	This study compared two jurisdictions—the City of Los Angeles, California, and Taichung County, Taiwan—in their recovery from earthquakes. Although the two cases differ with respect to variables other than the presence of pre-impact recovery plans, the available data suggests that having a pre-impact recovery plan facilitates housing reconstruction and allows local officials to make more effective use of the window of opportunity after a disaster to integrate hazard mitigation into the recovery process.
WWAY News	Community Recovery Resource Center Opens Friday in New Hanover County	2018	This news report details the local resource center that opened after Hurricane Florence in North Carolina.

VIII. Acronyms

Additional Acronym Lists:

- Texas A&M University <u>Disaster Acronym Guide</u>
- Texas General Land Office <u>Glossary of Acronyms and Definitions</u>

ARC	American Red Cross
BCP	Business Continuity Plan
BRC	Business Recovery Center
CDBG-DR	Community Development Block Grant Disaster Recovery
COAD	Community Organizations Active in Disaster
COOP	Continuity of Operations
DCMP	Disaster Case Management Program
DHHS	U.S. Department of Health and Human Services
DRC	Disaster Recovery Center
DSO	Disaster Summary Outline
EHP	Environmental and Historic Preservation
EOC	Emergency Operations Center
ESF	Emergency Support Function
FDRC	Federal Disaster Recovery Coordinator
FEMA	Federal Emergency Management Agency
JFO	Joint Field Office
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
HMP	Hazard Mitigation Plan
HUD	U.S. Department of Housing and Urban Development
IA	Individual Assistance
IAP	Incident Action Plan
ICS	Incident Command System
IHP	Individuals and Households Program
LAC	Local Assistance Center
LDRM	Local Disaster Recovery Manager

LTRG	Long-term Recovery Committee
MAC	Multiagency Coordination
NDRF	National Disaster Recovery Framework
NGO	Nongovernmental Organization
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
PA	Public Assistance
PDA	Preliminary Damage Assessment
RAP	Recovery Action Plan
RSF	Recovery Support Function
SDRC	State Disaster Recovery Coordinator
SBA	Small Business Administration
TDEM	Texas Department of Emergency Management
USDA	U.S. Department of Agriculture
USACE	U.S. Army Corps of Engineers
VOAD	Voluntary Organizations Active in Disaster