

# Airport Disaster Recovery Planning Guide

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Emergency Management

## Preface

This document was developed through a collaborative effort between professionals in the aviation industry's Emergency Management sector. It was designed as a resource not only to enhance understanding of disaster recovery but to also offer industry-specific guidance that can be tailored to each airport's needs.

We encourage airports to share their lessons learned, best practices, and constructive feedback. This collaborative input will enable us to update, strengthen, and improve the document, ensuring it continues to serve the aviation industry effectively in the future.

**Disclaimer:** The contents of this document are for informational purposes only. While we have made every attempt to ensure that the information contained in this document has been obtained from reliable source, no guarantees are provided. Airports should consult with their staff, stakeholders, and partners (local, state, and federal), and all applicable laws and regulations when drafting their own document. This task force, and affiliate airports, are not responsible for any errors or omissions, or for the results obtained from the use of this information. In no event will this task force, or affiliated airports, its related partnerships, or the partners, agents or employees thereof be liable for any decision made or action taken in reliance on the information in this document or for any consequential, special or similar damages, even if advised of the possibility of such damages.

**Special Thanks:** The development of this guide was due to the participation in the inaugural Eno AirMAX program. A program, designed to foster collaboration among airports sharing similar operational and management characteristics. More information on the program can be found here:

<https://enotrans.org/airmax/>

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**Purpose .....3**

**Disaster Recovery Planning .....3**

**Planning Process .....3**

**Base Plan .....4**

    Table of Contents ..... 4

    Executive Summary ..... 4

    Record of Distribution ..... 4

    Disaster Recovery Plan Overview ..... 5

    Concept of Operations (CONOPS) ..... 10

    Organization and Assignment of Responsibilities ..... 19

    Direction, Control and Coordination ..... 22

    Information Collection, Analysis, and Dissemination ..... 24

    Communication and Coordination ..... 24

    Administration, Finance, and Logistics ..... 24

    Demobilization ..... 26

    Plan Development and Maintenance ..... 27

    Recovery Functional Area Annexes ..... 28

**Appendix: Damage Assessment Plan .....30**

    Table of Contents ..... 30

    Purpose, Scope, and Assumptions ..... 30

    Concept of Operations ..... 31

    Actions, Roles and Responsibilities ..... 40

    Additional Considerations ..... 41

**Appendix: Debris Management Plan .....42**

    Purpose, Scope, Assumptions ..... 42

    Actions, Roles and Responsibilities ..... 58

    Debris Management Information Strategy ..... 59

    Health and Safety Strategy ..... 60

**References and Authorities .....64**

**Attachments: Sample Recovery Plan Checklists/Guides .....66**

**ATTACHMENT 1: (SAMPLE) DAMAGE ASSESSMENT BRANCH DIRECTOR TASK LIST .....67**

**ATTACHMENT 2: (SAMPLE) RAPID DAMAGE ASSESSMENT (RDA) GUIDE .....68**

**ATTACHMENT 3: (SAMPLE) INITIAL DAMAGE ASSESSMENT (IDA) .....76**

**ATTACHMENT 4: (SAMPLE) STAKEHOLDER ASSESSMENTS GUIDE .....84**

**ATTACHMENT 5: (SAMPLE) RECOVERY SITUATIONAL REPORT .....89**

**ATTACHMENT 6: (SAMPLE) DEBRIS MANAGEMENT BRANCH GUIDE .....101**

**ATTACHMENT 7: (SAMPLE) ROLES AND RESPONSIBILITIES/ACTION ITEMS .....109**

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## Purpose

The Airport Disaster Recovery Planning Guide (Guide) provides insights into developing an airport disaster recovery plan. It promotes a common understanding of the fundamentals of risk-informed planning and decision making to help planners examine a hazard or threat and produce integrated, coordinated, and synchronized plans. This Guide is intended to help planners in their effort to develop viable disaster recovery plans for incidents resulting in physical damage to their facilities.

## Disaster Recovery Planning

Pre-incident planning allows airports to engage the whole airport community to better ensure successful progression through the disaster recovery lifecycle, including determining required capabilities and establishing a framework for assigning roles and responsibilities. It shapes how an airport envisions and achieves the desired outcome of building back better. The concept for post-disaster recovery that aims to reduce the risk of future disasters and to further develop airport resilience. Planners achieve unity of purpose through coordination and integration of plans across all levels of airport governance which increases the likelihood of synchronization, more efficient and effective planning cycles, and makes plan maintenance easier.

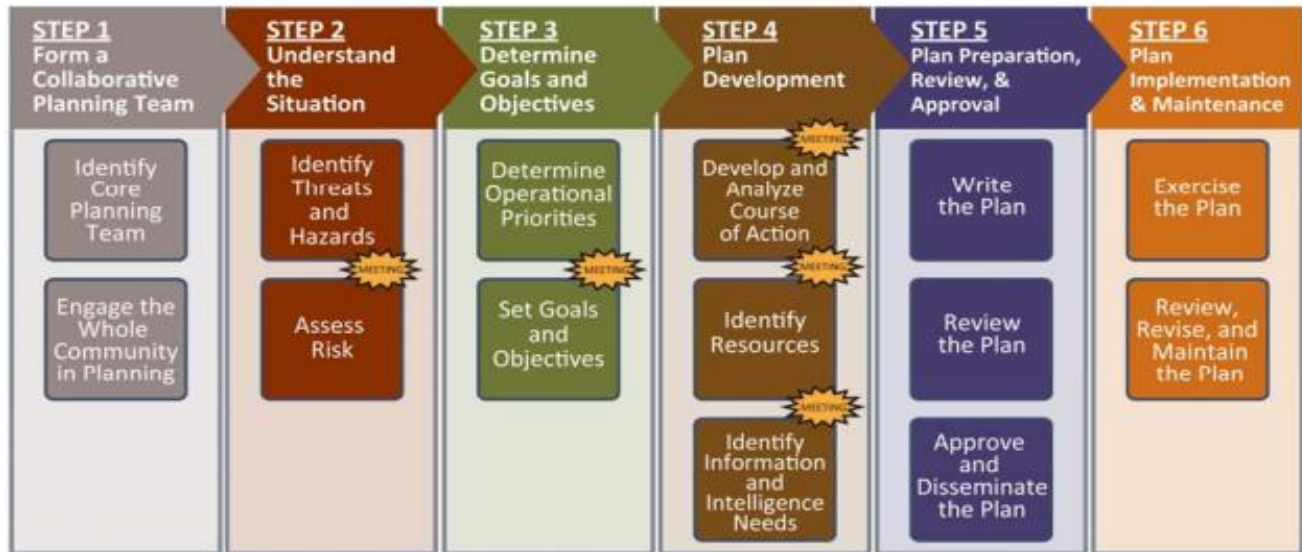
## Planning Process

**How to:** This Guide includes sections, appendices, and attachments that may be included within an airport's disaster recovery plan. These elements can be referenced when creating a plan outline, and the information provided includes examples, assumptions, and considerations that can be included, or further developed as internal planning processes progress. Recovery plans should be scalable, and airports can follow the steps that are appropriate to their size, known hazards/risks, capabilities, and available planning resources. Close collaboration will be needed with internal partners so that realistic and achievable planning objectives are met. When meeting with stakeholders, planners should aim to illustrate the value in these planning efforts, as well as provide an understanding of how each stakeholder aligns with the airport's recovery planning goals.

The Comprehensive Preparedness Guide (CPG) 101 provides Federal Emergency Management Agency (FEMA) guidance on the fundamentals of planning and developing emergency operations plans (EOP). CPG 101 shows that EOPs are connected to planning efforts in the areas of prevention and protection, response, recovery, and mitigation. This document incorporates guidelines set forth in the CPG 101 document, along with other relevant disaster recovery information compiled from multiple sources. Regulatory requirements may necessitate the use of additional information for the development of certain recovery activities.

There are many ways to produce an airport specific disaster recovery plan. The planning process that follows is flexible and allows airports to adapt to varying characteristics and situations. Figure 1 depicts steps in the planning process. At each step in the planning process, airports should consider the impact of the decisions made on training, exercises, equipment, and other requirements.

Figure 1: Steps in the Planning Process



## Base Plan

The basic plan provides an overview of the airport’s approach to disaster recovery. It identifies recovery phases, describes the recovery organization, and describes workgroup actions. Although the basic plan guides the development of the more recovery-oriented annexes, its primary audience consists of the airport’s executive leadership and recovery lead, his or her staff, department/division heads, and the whole airport community (as appropriate). The elements listed in this section should meet the needs of this audience while providing a solid foundation for the development of supporting annexes.

### TABLE OF CONTENTS

The table of contents should be a logically ordered and clearly identified layout of the major sections and subsections of the plan that will make finding information within the plan easier.

### EXECUTIVE SUMMARY

This section introduces the airport, as well as its significance to the region, and how the plan aligns with the airport’s strategic vision. It provides a condensed overview of pertinent information that lets stakeholders quickly grasp the plan’s purpose, scope, and structure. The section facilitates swift decision-making and serves as a roadmap for implementing disaster recovery operations during emergencies.

### RECORD OF DISTRIBUTION

A Record of Distribution is a table format list documenting the plan’s dissemination to relevant individuals and organizations. It typically includes details such as the recipient’s name and title, organization, the date of delivery, the method of delivery, and the number of copies provided. This record indicates that all responsible parties have received and acknowledged the plan, ensuring they are informed of their roles and responsibilities during an emergency.

**DISASTER RECOVERY PLAN OVERVIEW**

**Purpose:** The purpose sets the foundation for the rest of the recovery plan. It defines the plan's objectives by outlining the goals the plan is meant to accomplish. It aims to coordinate stakeholders by outlining the intent to restore critical functions following a disruption and ensuring that stakeholders understand the significance and the desired outcomes of its implementation.

**Scope:** The scope defines the boundaries and extent of the plan by detailing which systems, processes, and resources are covered. It provides clarity on the plan's applicability and limitations based on the airport's capabilities, which may differ dependent on the hazard faced.

**Situation Overview:** The situation section characterizes the “planning environment” making it clear why a recovery plan is necessary and how it ensures that recovery strategies are tailored to the airport's circumstances and challenges. The section should identify the potential threats and hazards, whether they be natural, human-caused, or other, that could disrupt essential functions. This section should also describe the internal and external dependencies that could influence recovery strategies, which may include how the jurisdiction expects to receive (or provide) assistance within its regional response structures. Understanding the potential impacts that a disaster would have on the airport, as well as the region, is essential to substantiating the significance of the information contained in the recovery plan. The situation section covers a general discussion of:

- Relative probability and impact of the hazards.
- Geographic areas likely to be affected by hazards.
- Vulnerable critical facilities/operations and other airport attributes.
- The process used by the airport to determine its capabilities and limits to prepare for disaster recovery.
- Actions taken in advance to minimize an incident’s impacts, including short- and long-term strategies.

**Disaster Causing Hazards:** This section identifies and summarizes the hazards that pose a significant risk to the airport and may result in the activation of this plan. Hazards may be categorized into three types: natural, technological, and human caused. The following hazards listed in Table 1 are some of the possible hazards associated with airport disasters that may result in physical losses to the airport.

**Table 1: Potential Physical Loss Causing Hazards**

Human	Natural	Technological
Active Threat	Drought	Aircraft Accident - On AOA
Bomb Incidents	Earthquake	Building Collapse
Civil Disturbance	Flood	Bridge Collapse
Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Incident	Expansive Soils and Subsidence	Fire - Major Structure
	Hailstorm	HAZMAT Incident
	Hurricanes	Power Failure
Hostage Situation (non-terrorist)	Landslides	Sewer System Failure
Mass Casualty Incident	Sand/Dust Storm	Vehicular Accident – Major
Sabotage	Tornado	Water Supply Failure
Terrorism	Wildland Fire	
Unmanned Aerial System (UAS)	Winds - Damaging	
	Winter Storm - Severe	

**Recovery Lifecycle:** Disaster recovery is complex. It is not a linear or straightforward process but is cyclical and evolves based on the unique needs of each community, and airport. Mitigation, response, recovery, and rebuilding are highly interdependent and often occur simultaneously. Recovery efforts may be disrupted, delayed, or forced to restart as new disasters arise. These new incidents may derail or set back an airport’s ongoing efforts, requiring them to pivot or revisit earlier recovery stages. This complexity highlights the need for flexible approaches that account for the interconnected nature of recovery operations. Figure 2 shows the disaster recovery lifecycle, highlighting the complexity and cyclical nature.

**Figure 2: Disaster Recovery Lifecycle:**



The Recovery Continuum shown in Figure 3 depicts how recovery efforts begin alongside response activities, and gradually scale up during response operations, highlighting the relationship across these phases. Enhancing resilience through mitigation and other risk management strategies spans the entire continuum, guiding the recovery and rebuilding process. Investments in mitigation and resilience will enable an airport’s ability to prepare for threats and hazards, adapt to changing conditions, and withstand and recover rapidly from adverse conditions and disruptions.

**Figure 3: Recovery Continuum:**



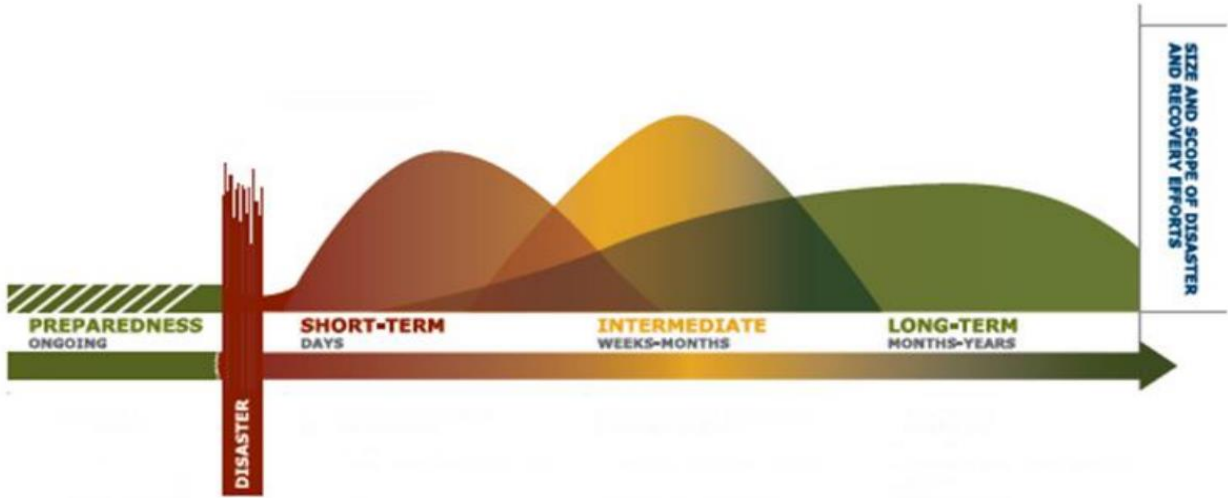
While these areas (resilience, mitigation, etc.) are part of the cyclical structure, the Airport Disaster Recovery Planning Guide focuses on the period as the incident progresses away from response and transitions into the state of recovery immediately following an incident. The guide focuses on the airport’s roles and responsibilities, action items, and overall disaster recovery plan development to improve the likelihood of

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

efficient recovery activities. Figure 4 further breaks down the recovery continuum to help emphasize the areas the Airport Disaster Recovery Planning guide focuses, which includes transition, short-term, intermediate, and long-term recovery efforts. The attributes, goals and outcomes of these phases are summarized in table 2 and can be referenced when developing the disaster recovery plan overview.

**Figure 4: Recovery Continuum Breakdown**



**Table 2: Phases of Recovery – Attributes, Goals, Outcomes**

Phase	Attributes	Overall Goals	Outcomes
Pre-disaster (Preparedness)	<ul style="list-style-type: none"> <li>• Ongoing</li> <li>• Plans are created to address disaster response, recovery, and mitigation</li> <li>• Stakeholder engagement</li> <li>• Training and exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Establish comprehensive, all-hazards approaches to managing disasters</li> <li>• Establish relationships among recovery partners</li> <li>• Enhance airport community resilience, and readiness for potential incidents</li> <li>• Outline potential recovery roles and responsibilities of organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Effective plans are in place to facilitate recovery</li> <li>• Increased coordination developed among recovery partners for expediting recovery operations</li> <li>• Airport community awareness and engagement</li> </ul>

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

Phase	Attributes	Overall Goals	Outcomes
Response	<ul style="list-style-type: none"> <li>Occurs while an emergency is imminent, during the incident, and immediately following the initial incident impact</li> <li>Focus on life safety, property protection, incident stabilization.</li> </ul>	<ul style="list-style-type: none"> <li>Protect life-safety.</li> <li>Prevent and/or reduce damage to the built environment.</li> <li>Stabilize the incident.</li> <li>Gather initial impact information.</li> <li>Identify critical recovery priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Completion of most, if not all, life-safety measures</li> <li>Containment of the threat/hazard.</li> <li>Incident stabilization</li> <li>Initial assessment of impacts.</li> <li>Identification of immediate recovery objectives.</li> </ul>
Transition	<ul style="list-style-type: none"> <li>The transition phase may last 24-48 hours.</li> <li>Focus on completing response operations and putting the mechanisms in place to transition to recovery.</li> </ul>	<ul style="list-style-type: none"> <li>Complete all life-safety operations.</li> <li>Restore essential services as incident stabilizes.</li> <li>Protect exposed infrastructure.</li> <li>Make repairs to critical infrastructure to allow for safe re-entry to the affected area.</li> <li>Begin the recovery action planning process.</li> <li>Mobilization of recovery resources.</li> </ul>	<ul style="list-style-type: none"> <li>Rapid Damage Assessments (RDA) are conducted.</li> <li>Critical services and infrastructure, Operational activities are partially or fully reestablished (e.g., wayfinding, screening, aircraft operations etc.).</li> <li>Critical infrastructure damage assessments have begun.</li> <li>Key recovery staff/resources activated/mobilized.</li> </ul>
Short-term	<ul style="list-style-type: none"> <li>Activities initiated within days to weeks after the incident.</li> </ul>	<ul style="list-style-type: none"> <li>Support immediate recovery needs of tenants, employees, and passengers (rest and rehabilitation, stranded passenger accommodations).</li> <li>To the extent possible, repair/restore essential infrastructure, businesses, and other facilities.</li> <li>Compile damage assessments and document impacts.</li> <li>Establish debris management strategy and activities.</li> </ul>	<ul style="list-style-type: none"> <li>The airport authority, tenants, and federal partners are in the process of developing or transitioning to alternate operational tactics for continued movement of passengers and employees through the airport.</li> <li>Operational oversight transitions to the Recovery Coordination Task Force (RCTF).</li> </ul>

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

Phase	Attributes	Overall Goals	Outcomes
Intermediate	<ul style="list-style-type: none"> <li>It begins once short-term recovery issues are resolved and may span weeks to months. It is likely to occur within one month following a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>Establish status quo for operation sustainability through the recovery phases.</li> <li>Focus on the repair infrastructure, businesses, and other facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Critical infrastructure is repaired/in the process of being repaired.</li> <li>Engineering reviews have occurred, and recovery is transitioning from emergency repair to project management.</li> </ul>
Long-term	<ul style="list-style-type: none"> <li>Extended activities lasting months to years.</li> <li>Characterized by continuous increased progress in reconstruction and operational activity.</li> <li>Community redevelopment and resilience building.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfy the recovery needs of stakeholders.</li> <li>Continue repair and rebuilding of damaged structures and infrastructure.</li> <li>Develop a long-term recovery strategy to bolster airport resiliency.</li> </ul>	<ul style="list-style-type: none"> <li>Businesses reopened.</li> <li>Reconstructed and improved infrastructure.</li> <li>The airport supports business continuity of impacted stakeholders.</li> <li>Primary objective of long-term recovery is to establish new and improved resilience for the airport community.</li> </ul>

**Planning Assumptions:** Recovery plan assumptions are an integral part to developing a disaster recovery plan. They establish the foundational context and parameters for recovery strategies. Some key aspects include:

- **Defining Plan Boundaries:** Assumptions clarify the scope and limitations, specifying the scenarios it addresses and the extent of its applicability.
- **Guiding Resource Allocation:** They inform decisions on resource distribution by anticipating potential needs and availability during recovery efforts.
- **Establishing Operational Expectations:** Assumptions set expectations for how recovery operations will be conducted, including timelines, resource availability, and stakeholder involvement.
- **Limiting Liability:** By articulating what is presumed, recovery plan assumptions help define the plan's limits, potentially limiting liability by acknowledging areas of uncertainty.

It is essential to periodically review and update these assumptions to reflect organizational changes, resources, and potential hazards, ensuring the plan remains relevant and effective. Examples of planning assumptions include:

- Critical resources and services such as water, electrical power, natural gas, oil, sewer, communications, and transportation may be damaged, compromised, and in limited operation.
- Recovery efforts may be impacted by crime scene investigations. This may include the ingress/egress of facilities, and scene preservation including areas where debris management operations are required.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Recovery progress will be of high interest to local and national media - media management will be challenging.
- Employee staffing will be affected, and actions will need to be prioritized to maintain operational continuance while recovery efforts take place.

#### **CONCEPT OF OPERATIONS (CONOPS)**

The audience for the basic plan needs to be able to visualize the sequence and scope of the planned recovery phases. The CONOPS section is a written or graphic statement that explains in broad terms the decision maker's or leader's intent regarding recovery. The CONOPS should describe how the organization accomplishes a mission or set of objectives to reach a desired end-state. Ideally, it offers clear methodology to realize the goals and objectives to execute the plan. The CONOPS should briefly address direction and control, alert and warning, and continuity matters that may be dealt with more fully in annexes. This framework ensures all stakeholders understand their roles and responsibilities during an incident, facilitating coordinated and effective responses.

**Activation and Notification:** This section describes the decision process at which the recovery plan will be implemented, who has overall responsibility before the plan is implemented, and how the coordination to transition will occur. Considerations for recovery plan activation should include:

- Size, scope, and complexity of incident impacts, including loss of life and damage to property.
- Anticipated duration for repairs of critical infrastructure, or major commercial areas; and
- Accessibility of the affected area and anticipated timeline for re-entry.

**Phases of Recovery:** This section describes the general activities the airport can expect to take as it progresses through the various phases of recovery.

- Transition
- Short-Term
- Intermediate
- Long-Term

Examples of recovery phase activities include:

#### **Transition from Response to Recovery**

The following activities may overlap with response operations, but generally take place when the initial emergency response phase has passed and immediate threats to life safety and property have been stabilized.

- Complete all life-safety operations initiated during the response phase.
  - Activate the Disaster Recovery Plan and supplemental appendices, as necessary.
  - Continue to track incident-related costs and document decision-making from the EOC.
  - Continue to coordinate with subject matter experts for timely restoration of critical facility functions.
  - Conduct RDAs of property, systems, and infrastructure.
  - Manage teams tasked with site assessments of impacted facilities and critical infrastructure.
  - Develop disaster summary outlines to estimate damages.
  - Aggregate, document, and confirm information gathered in the EOC.
  - Damage assessment and impact data.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- If applicable, consult with state and federal officials to initiate the Preliminary Damage Assessment (PDA) process and eligibility for federal assistance, if applicable and under the guidance of the local jurisdictions Damage Assessment Plan.
- Mapping and floor plan information.
- Contact names and numbers of EOC staff and primary workgroup contacts.
- Initiate debris management operations.
- Secure appropriate emergency purchase orders.
- Identify which areas are safe for occupation.
- Plan for re-entry to the affected areas.
- Establish detours, roadblocks, etc.
- Develop contingency wayfinding and busing operations for passengers and employees.
- Develop, establish, or enact contingency air carrier operation procedures.
- Initiate a comprehensive and streamlined public information and outreach campaign to stakeholders focused on the transition into airport recovery.
- Evaluate the need to establish a local information or resource center for employees.
- Establish family assistance operations in support of impacted passengers, employees, and public.
- Begin the recovery process and identify short-term recovery objectives.

#### **Short-term Recovery**

The following general activities may take place within the first week following the incident and may overlap with transition phase activities.

- Establish oversight for continuous recovery, and transition from EOC operations to recovery support.
- Conduct an after-action review of the emergency response.
- Establish a publicly accessible incident-specific webpage to serve as a central repository of information.
- Continue a comprehensive public outreach campaign to share recovery information with the public and impacted employees.
- Continue collaborating with infrastructure operators for restoration of critical services.
- Continue information collection on severity and impacts of the disaster.
- Support the needs of impacted tenants and leaseholders.
- Continue family assistance operations until no longer necessary.
- Transition affected tenants to temporary locations.
- Coordinate/Continue Damage Assessments as needed or required.
- Continue Debris Management Operations.
- Initiate the repair and reconstruction process.
- Consider redefining temporary or permanent leasehold obligations, where possible.
- Continually evaluate recovery needs and activate appropriate functional recovery areas.
- Evaluate progress and update status and objectives.

#### **Intermediate Recovery**

The following general activities may take place within two weeks following the incident and may overlap with short-term recovery phase activities.

- Implement Continuity of Operations (COOP) Plans and transition to Business Continuity.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Develop a long-term recovery strategy through collaboration with internal departments and impacted stakeholders.
- Identify funding sources, subtasks, milestones, and timelines for implementation.
- Coordinate/continue debris management operations.
- Coordinate/continue damage assessments as needed or required.
- Transition tenants to reconstructed locations.
- Adjust passenger movement and wayfinding as impacted locations are reopened.
- Establish standard communications methods for tenant and employee information.
- Reassess emergency response routes as affected areas reopen.

#### Long-term Recovery

The following general activities will take place in the weeks to months following the incident and may overlap with Intermediate recovery phase activities.

- Continue the comprehensive public outreach campaign.
- Ensure proper, timely, and accurate financial and administrative management.
- Implement additional strategies for expeditious reconstruction of the built environment.
- Identify and provide recovery assistance, information, referrals, and services to impacted airport employees and stakeholders.
- Identify projects and programs that fulfill long-term resilience.
- Monitor and evaluate implementation progress of the recovery strategy.

**Disaster Memorialization:** Temporary memorializing after a disaster will occur and should be treated as a tool to support the whole airport community during the recovery process. This section should describe the assumptions and considerations associated with memorialization that can be made following a disaster. If formalized plans exist, they should be briefly described and referenced. The following items are examples of considerations that should be evaluated following a disaster and in preparation of memorialization activities.

- Temporary memorials will occur and be established at, or near, the site of the disaster.
- Memorial items are emotionally laden.
- Messaging is influenced by social media.
- Participation in temporary memorializing, providing people with a safe space to express their grief can be important in supporting individual healing.
- There are no definitive time lengths for temporary memorial site to be in place.
- Most sites occur in public spaces and have relatively easy access.
- There may be psychological implications for those who work near the sites.
- People may find it upsetting or disrespectful if memorials are damaged or look uncared for.
- Airports should honor the victims, and foster community healing by informing the public and offering insights and awareness of memorialization activities.
- There may be an expectation to preserve memorial items when dismantling sites.
- When planning:
  - Be inclusive
  - Be supportive
  - Be respectful
  - Be consultative

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Plan removal/relocation

**Personal Effects:** In the confusion and panic that normally accompanies a disaster many items of personal property may become separated from their owners. The items recovered following the disaster may belong to those who have perished, to the survivors or even the companies or government entities located within the incident site. Such property may be referred to as “belongings” or “personal effects” and can include a vast array of items that may have been left behind in the disaster.

The number of items recovered after a disaster will vary depending on the incident scale but will undoubtedly overwhelm the current airport “in-house” lost and found and reclamation capabilities. Coordination efforts should occur shortly after the incident to ensure a timely mobilization of either established or emergency procured contracts to oversee the personal effects recovery process. The personal effects section within the recovery plan should describe the assumptions and considerations associated with personal effects following a disaster. If formalized plans exist, they should be briefly described and referenced. The following items are considerations and assumptions that should be evaluated following a disaster where personal effects and reclamation activities may occur:

- These items may carry memories, stories, and emotional attachments that are irreplaceable and should be treated, stored, and returned with care.
- Property may be needed as evidence in investigations by different agencies.
- All property should be kept secure and in conditions that prevent any deterioration of its condition.
- Property may become available at various stages in the weeks, months and even years after a disaster. Messaging will need to be distributed on the processes in place as well as continuous updates or options for those waiting for reclamation information.
- Airports should coordinate with the local medical examiner/coroner to establish procedures to ensure confirmed ownership belongings remains with the deceased.
- Property may be damaged, burned, or contaminated.
- Photos may aid in owners’ decision making on wanting items returned when it comes to property that may have been directly affected by the incident.
- The owners should have final decision on returning available items, regardless of sensitivity or significance, and assumptions or decisions should not be made on their behalf without prior authorization.
- In some circumstances there may be public health reasons that result in property that cannot be returned and for safety reasons will need to be securely destroyed.
- In some situations, property may only be returned to next of kin. This may add extra time to the process but may be needed to reduce errors and ensure appropriate disposition of property.
- Property will need to be sorted, photographed, and recorded.
- Documentation procedures and chain of custody parameters should be established early to ensure efficient transition through the various phases of the incident.
- Information regarding property should always remain secure and confidential.
- There may be circumstances in which it is necessary to clean or launder items in order to identify them.
- Property may be able to be divided into categories (associated/unassociated):

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Associated personal effects are those that are readily identifiable as belonging to a specific individual. Passports, IDs, etc. fit this category because they contain images, names, or other information that indicates ownership. This may also include luggage if they have nametags, clothing, jewelry, or other items that are on a person when recovered.
- Unassociated PE are items that are not readily identifiable as belonging to a specific individual. Loose jewelry, toys, shoes, books, bags, electronic devices, etc. that do not indicate names, are not functional, or are not physically in connection with a person are some examples. Unassociated items will typically need to go through a more rigorous claims process, sometimes requiring proof of ownership.
- Assumptions and categorizations may be made based on location of the incident that may reduce the time for ownership verification (gate areas, concourses, lounge areas, etc. where associations may be made or presence verified through normal travelling activities).
- Where a disaster affects victims from more than one country, investigative procedures involving agencies such as embassies, consular departments, and other foreign offices can be complicated by differing international systems.
- Circumstances may arise where multiple claims will be made for an item of property.

**Family Assistance:** This section of the plan describes the assumptions and considerations associated with family assistance operations that can be made following a disaster. Family assistance plans should aim to develop a scalable framework to facilitate operations and to provide overall roles and responsibilities for primary response agencies. If formalized plans exist, they should be briefly described and referenced.

Family assistance plans should describe the necessary collaboration with internal and external stakeholders conducting family assistance operations including laying the groundwork for coordinating longer or more complex incidents with the airport's local jurisdiction. The National Transportation Safety Board (NTSB) Transportation Disaster Assistance Division (TDA) is responsible for the agency's family assistance program and operations and should be collaborated with when developing/implementing plans. TDA addresses the needs of survivors and the families and friends of those involved in transportation accidents the NTSB investigates by coordinating federal government resources to support:

- local, state, tribal and federal government agencies
- nongovernmental and private organizations
- transportation operators

TDA also serves as the primary agency contact for survivors, families, and friends of those involved to address questions, provide investigative updates, and offer information about available assistance through appropriate organizations.

An airport's comprehensive family assistance plan should also include actions taken for Legislated, Non-legislated, and Non-Aviation Mass Trauma Incidents (MTI). The Aviation Disaster Family Assistance Act of 1996 outlines that the NTSB, the transportation carrier, the American Red Cross, and supporting federal agencies hold specific responsibilities for family assistance planning following a legislated accident. A non-aviation MTI includes natural hazards such as tornadoes or fires and human-caused hazards such as chemical releases or active shooter events that result in a significant number of injuries. Any event (legislated, non-legislated, and/or non-aviation) may necessitate that airports lead family assistance operations until further coordination can be organized.

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Family Assistance related facilities/locations that may be activated following an incident include:

- **Friends and Relatives Center:** A Friends and Relatives Center (FRC) is the interim location where the friends and family of victims can gather to provide information on their missing or unaccounted for loved ones and receive initial information. This location serves as the bridge between the incident and the Reunification Center/Family Assistance Center. This area should be a short-term and easily accessible location away from the public and media. FRCs provide a location where family members may receive immediate assistance in obtaining initial information about the accident and their loved one's involvement. Temporary and minimal support services including basic needs, emotional support, and health services should be provided.
- **Passenger/Victim Gathering Area:** The Passenger, or Victim, Gathering Area should also be a short-term and easily accessible location away from the public and media that is to be offered to the victims of an incident. This is also an area where functions such as secondary triage, victim accounting, information sharing, customs and border processing, and emotional support services can be conducted. Gathering passengers involved in an accident (other than those transported to medical treatment facilities and those fatally injured) to a secure location where these services and functions can be accomplished will facilitate the provision of family assistance services to these individuals. Keeping in mind potential sensitivities between different affected groups, it may be prudent to establish separate areas based on these sensitivities (for example, separating passengers and operating crew into a passenger gathering area [PGA] and a crew gathering area [CGA]).
- **Reunification Center:** The Reunification Center (RC) should be a private, safe, secure, and supportive environment established as a centralized location where friends and family can be reunited with survived loved ones. Reunification of individuals/groups with potential sensitivities should not take place in view of others gathered in those same areas.
- **Family Assistance Center:** A Family Assistance Center (FAC) acts as the long-term location for victims and family members to get information and services once the other locations are no longer being utilized. FACs may offer continued assistance with reunification efforts, mental health, physiological needs (food, sleep, clothing), spiritual care, and a variety of other short- and longer-term needs. Effective communication between agencies responsible for the provision of family assistance services is necessary to ensure efficient delivery of those services by identifying needs and coordinating/managing resource requests. Depending on the incident, different agencies may be responsible for FAC activation; the American Red Cross (ARC) often supports the lead agency. Law enforcement investigations, including interviews and evidence investigations, may be ongoing at a FAC. Creating a victim centered approach will facilitate the delivery of effective services.
- **Virtual Family Assistance Center:** A Virtual Family Assistance Center (VFAC) can be established as a supplement to the FAC to provide resources and services to friends and family. Family members gathered at hospitals may wish to participate in informational briefings provided at an FAC but may not want to leave the hospital. Family members may be unable or may not want to travel to the established facilities but may still wish to receive the services (such as information or emotional, psychological, and spiritual care) offered there. A VFAC may provide limited services when a physical FAC is unfeasible due to the scope of the incident or resource and/or time constraints. Remote information centers (RICs), and virtual family assistance operations should be considered by those with

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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responsibility for the provision of family assistance services. A VFAC can be established within the first few hours of an incident and should include a website with information to hotlines for crisis, a call center, and other family reunification services.

Considerations and assumptions when planning for incidents requiring the need for family assistance activities include:

- Friends and family are defined as individuals (e.g., relative, friend, domestic partner) who considers themselves a part of the victim's family, even if there is no legal, familial relationship.
- Outside assistance will likely be available in most emergency situations affecting the airport. However, due to unforeseeable response times in requesting external assistance, it is essential that airport entities are prepared to conduct the initial response on an independent basis.
- Certain transportation-related MTIs may require coordination and related mandates from Federal agencies, including the NTSB or the FBI.
- Particular care should be given to ensure information collected through family assistance Operations is kept confidential and secure.
- It is important for staff collecting information to stay neutral and refrain from sharing any information regarding family assistance operations, unless authorized.
- Family, friends, and loved ones may be in a state of distress and may not possess the ability to keep their composure or may act uncontrollably.
- Family members travel from all over the United States and may even travel internationally, requiring translators and interpreters.
- Family assistance operations must be flexible and modular as incidents can occur at any time or place and may require a varying degree of resources.
- Be mindful of incident proximity and where family assistance operations are being implemented. If the incident is visible, then location adjustments (e.g., window coverings) may need to be made.
- Airports may begin to receive an influx of calls from friends and family, media, and other individuals requesting information on the incident and/or the status of their loved ones.
- In addition to the scheduled passenger traffic, friends and family, media, and other individuals may begin to arrive at the airport seeking information or offering resources/support.
- Due to the potential complexity of family assistance operations, additional consideration should be given to establishing the Family Assistance Branch as early as possible.
- Persons assigned to the Family Assistance Branch may vary depending on the nature of the incident and may not always be airport personnel.
- Depending on the nature of the incident, affected individuals (i.e., victims, friends, family) may leave and return to family assistance operations requiring additional guidance.
- For security, safety, and accountability reasons, family assistance staff should maintain accurate sign-in logs for all individuals entering and exiting operational areas.
- Operational areas may be located in restricted areas requiring additional coordination for escort.
- Airports in conjunction with stakeholders should consider utilizing spaces specific to the affected stakeholder such as airline lounges, conference rooms, training spaces, or hangars.
- Passengers, friends, and family members with access and functional needs must be provided with services that ensure physical and communication access that allows individuals and families to maintain their independence and interact freely with airport staff and other involved organizations.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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Airports should follow the CMIST framework (Communication, Maintaining Health, Independence, Safety and Support Services, and Transportation) to assist in planning for those individuals.

- The airport should recognize the need to provide immediate assistance in the event of an emergency, but also understand the considerable limitations present in sustaining a family assistance operation beyond the first 24 hours. When the Family Assistance Plan is activated, the airport should contact the local jurisdiction's office of emergency management and request that they activate their plan to provide resource support and help facilitate the transition to long-term operations.
- Following an MTI, families will need continuous access to information. A family briefing should inform families of critical information and process updates as soon as possible after operations have been established.
  - Accommodations must be made to ensure all family members, present or remote, have access to the same information. These briefings are often sensitive, highly emotional, and volatile. Members of the media, legal representatives, and unauthorized visitors should not be authorized to attend.
- Security for family assistance facilities is essential for the safety and well-being of families and staff and for the protection of sensitive and private records.
  - One of the main responsibilities of security staff is to ensure that media personnel are not granted access to family assistance facilities or permitted to address family or friends on such property.
  - Security is also responsible for securing all response aspects, including external areas (e.g., parking lots).
  - Security staff must also be sensitive to possible disruptions caused by distraught family members.
- Provide emergency supplies (i.e., blankets, formula, diapers, water) to Victim Gathering Area and/or Reunification Center dependent on complexity and length of incident.
- Provide support to IT systems and equipment needed to support family assistance operations (i.e., phones, printers).
- Assist in wayfinding and general inquiries from the traveling public and/or friends and family. Provide "Meet and Assist" services to help family members through the security checkpoint. Engage with family members, customers, and employees at family assistance operational areas.
- Provide support for hospital victim tracking, volunteer services, victim advocacy, counseling, and basic needs.
- Provide ground transportation, designated parking, and busing operations in support of family assistance operations. Coordinate with ground transportation and rideshare companies to enhance airport service for friends and family.

**Staffing:** The Staffing section establishes a coordinated process to help ensure a healthy workforce and environment to try and prevent excess fatigue. Airports should prioritize their employee's wellbeing which can have positive effects, especially during times of emergency. When choosing strategies to adopt consider the type of disaster, location of staff, and what historically has been well received by staff. Wellness activities should be encouraged and modeled by leadership, who should also communicate to staff that one cannot take care of others if they do not take care of themselves. If formalized plans exist, they should be briefly described and referenced. The following items are considerations and assumptions that may be made when developing staffing initiatives following a disaster.

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Ensure that you have food, emergency supplies and cots available within the facility in case staff need to take shelter onsite. For onsite rest and rehabilitation areas considerations need to be made for basic needs (adequate bathrooms, showers, toiletries, etc.). If possible, make arrangements in advance for accommodations at a nearby hotel, as well as food delivery and transportation for your staff.
- Once the danger has passed, focus will be on resuming normal business operations as quickly as possible. Yet depending on the severity of the event, you may have employees who have been displaced, are without transportation or who are struggling to clean up their homes in the aftermath. Make sure that everyone is accounted for. Be aware that those who are at ground zero of a disaster may not have access to working phone service or Internet during or immediately following the event. Establish communications methods and give them a reasonable timeframe to check in before alerting human resources.
- Keep your staff informed with updates on the recovery progress, as well as local emergency resources. Employees who are the hardest hit may only have limited access to news and may be unaware of nearby assistance.
- Assign a team member to compile community resource information for those in affected areas, such as updates on local transportation, as well as the locations of emergency shelter sites, food banks, portable cell towers for phone service, medical aid, and Red Cross shelters. Also, check with HR to ensure that employees have information about their pay, benefits, and other resources.
- Depending on the severity of the incident alternate facilities/locations may need to be established to facilitate staff briefings and oncoming shift assignments.
- Consider providing separate computer stations for Internet use and personal email access. Provide as much assistance as possible while your employees are trying to get their lives back in order.
- Stress levels will be high following a disaster. Some employees may suffer from post-traumatic stress disorder months after a catastrophe.
- Supervisors and team leads should monitor employees for signs of exhaustion or anxiety.
- Consider providing personnel with access to stress relief onsite. Temporarily convert a break room or conference room into a “relaxation area/rehabilitation area”.
- If possible, bring in crisis counselors to talk with employees.
- When operating during disasters, airports may need to provide unique transportation services so that employees can reach the worksite.
- Provide a self-assessment to gauge burnout levels and signify needed rest/paid time off.
- Provide access to mental health professionals and trainings.
- Determine adequacy of existing staffing to meet work requirements.
- Consider the identification, onboarding, pre-deployment, and deployment of emergency staff.
- Liaise between jurisdictional leadership, EOC staff, and other response partners to help determine staffing needs and request assistance.
- Provide or support staff trainings on emergency response/recovery activities and functions.
- Staff should receive, at a minimum, just-in-time training, where applicable, upon reassignment.
- Staff should be provided with all necessary supplies and/or equipment to perform the reassigned duties.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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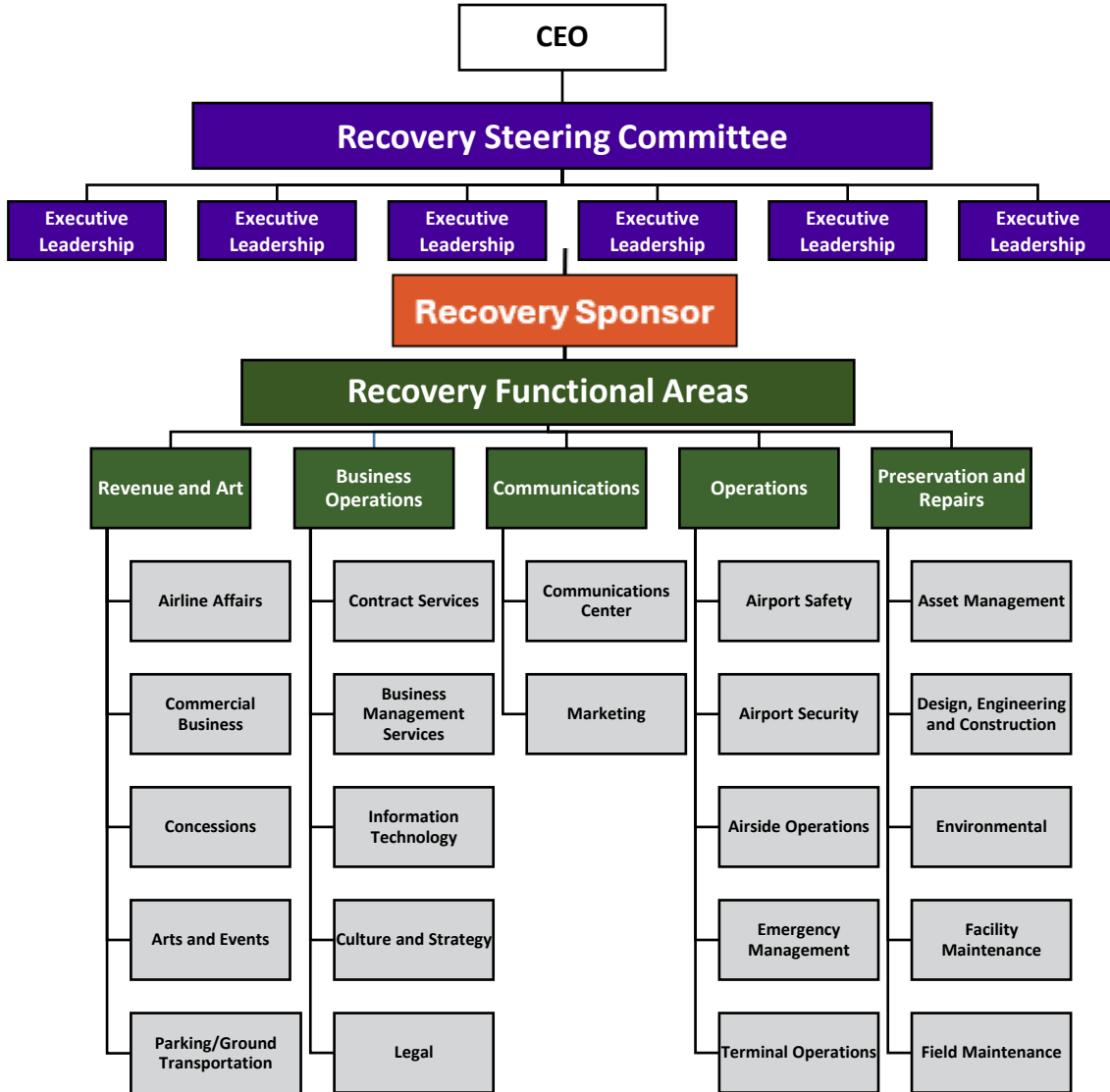
- Determine if meals will be provided for response/recovery staff. Note: It is recommended that meals be provided if food vendors or onsite cooking stations/refrigerators/storage areas are unavailable nearby.
- Determine how to track and monitor staff's health during the response.
- Just-in-time training should be included for all positions. Particular attention should be given to staff performing duties outside of their normal roles and responsibilities.
- Develop a core just-in-time training curriculum that orients staff to:
  - The ICS structure,
  - Safety protocols and procedures,
  - Meeting cadence,
  - Time and attendance tracking requirements,
  - Activity log requirements,
  - Deliverables (e.g., Situation Reports, Incident Action Plans, additional ICS forms, etc.),
  - Specifics of the response/recovery including: the current situation, objectives expectations, and incident-specific policies.
- Remind staff to return deployment specific resources to the Logistics Resource Unit Lead: technology, badges, uniforms, unused PPE, other equipment, and supplies.
- Remind staff to turn in all response related documentation not previously submitted to the Planning Section, Document Unit Lead.
- Provide demobilizing staff with information on any employee assistance programs and information about other forms of mental health and wellbeing support being provided (e.g., peer support sessions, holding spaces, crisis support).
- Call demobilized staff two to three weeks after their deployment has ended to inquire about how they are transitioning back into normal operations and offer support services.
- Invite staff to participate in a hotwash session to debrief the incident. Multiple hotwash sessions may be needed with specific focus areas.

### **ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES**

The basic plan establishes the operational organization that will be relied on to implement recovery activities. It includes a list of roles and responsibilities by position and organization, without all the procedural details included in functional annexes. Organization charts, especially those depicting how an airport is implementing the ICS or Multiagency Coordination System structure, are helpful. In addition, this section is where an airport discusses the option that it uses for organizing recovery management, agency and department, functional areas of ICS/NIMS, or a hybrid. The selected management structure determines what types of annexes are included in the recovery plan and should be carried through to any hazard annexes.

Figure 5 provides an example of an airport's organizational chart after the incident has transitioned from response to disaster recovery:

Figure 5: Example Recovery Organizational Chart



**Recovery Steering Committee (RSC):** is comprised of the airport’s executive leadership that will decide on the airport’s long-term recovery priorities and are appointed directly by the airport’s Chief Executive Officer (CEO). The goal of the RSC is to provide strategic direction and support recovery from the policy level. The RSC provides an objective standpoint when making large decisions about recovery, regarding how the airport run processes, and how teams work together.

Roles and responsibilities of the RSC include:

- Provide guidance, recommendations, leadership, and ensure delivery of recovery outputs, and the achievement of recovery outcomes.
- Sustain a constant focus on the direction, scope, budget, timeline, and methods used by the airport.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Inter-unit coordination. This involves fostering positive and timely communication about recovery progress to the CEO and relevant stakeholders. Also, they oversee project collaboration and resolve conflicts amongst teams.
- Setting policies from the executive level.
- An initial budget will be approved by the steering committee, and funds will be disbursed following that determination. If additional funds are needed, requests must be verified by the committee.
- Determine overall long-term recovery scope and strategic direction. The steering committee sees the end result and communicates that with the recovery sponsor.
- Advocates for existing and new recovery initiatives following a disaster.
- Assists the project sponsor by identifying and appointing the right staff, project managers, and subject matter experts to implement recovery efforts.

**Recovery Sponsor:** The Recovery Sponsor will hold the primary role of managing, planning, organizing, coordinating, and advancing the airport's disaster recovery. The recovery sponsor will lead the recovery functional areas during the phases of recovery-pointing out issues that need to be addressed and recommend actions taken. This role is normally held by senior leadership within Airport Operations but may vary between airports. Depending on the scale of the incident, additional recovery sponsors may need to be appointed to effectively oversee recovery efforts.

Additional Roles and Responsibilities of the Recovery Sponsor include:

- Coordinate and integrate the implementation of the disaster recovery plan from the transition phase through long term airport recovery planning processes.
- Ensures critical mitigation, resilience, sustainability, and inclusive measures are implemented into the recovery plans and efforts, aligning with the airport's strategic vision.
- Facilitates and supports effective decision-making and coordination across all levels of recovery efforts, including Recovery Functional Areas, their workgroups, and the airport's executive/policy leadership.
- Coordinate the funding and financial management aspects of recovery activities.
- Encourages the organizational flexibility, adaptability, and resourcefulness needed to ensure a well-managed recovery.
- Recruits, assigns, and manages appropriate staffing levels.
- Coordinated with the recovery functional areas in setting and managing priorities.
- Collaborates with Local, State, Federal, and other stakeholders to ensure eligibility for obtaining FEMA declarations/grants and receiving potential reimbursements and payments for recovery efforts.
- Helps develop and implement recovery progress measures and communicates adjustments and improvements to applicable stakeholders and authorities.
- Communicates recovery priorities and needs to Local, State and Federal governments, and other relative stakeholders.
- Fosters information sharing and manages proactive whole airport community engagement and public awareness.

**Recovery Functional Area (RFA):** The recovery functional areas described in the Plan were developed to model FEMA's National Disaster Recovery Framework's six Recovery Support Functions (RSF) as the coordinating structure for key areas of recovery assistance. Tailored to the specific needs of the airport, their purpose is to provide support by facilitating problem solving, improving access to resources, and fostering coordination among internal and external stakeholders. The RFAs bring together the core recovery capabilities of divisions

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

---

and sections, and other supporting workgroups — including those not active in emergency response — to focus on airport recovery needs. During steady-state planning and when activated following a disaster, RFAs identify recovery challenges, contribute resources and solutions, facilitate local stakeholder participation, and promote intergovernmental and public-private partnerships.

**Plan Integration:** Plan integration refers to the systematic coordination and alignment of the Federal Aviation Administration’s required Airport Emergency Plan (AEP) and other airport specific plans with various internal and external stakeholders. This ensures a unified and efficient approach to managing incidents.

#### **Continuity of Operations (COOP):**

Continuity is the ability to provide uninterrupted critical services, essential functions, and support, while maintaining organizational viability, before, during and after an event that disrupts normal operations.

Continuity of Operations primarily focuses on actions to sustain essential functions after an incident and throughout the recovery process. While recovery planning delves into the tactical aspects necessary to expedite the restoration process and encompasses resource allocation, infrastructure assessment and repair, debris management, and stakeholder coordination following a disaster and throughout an extended recovery timeline. Both planning efforts may utilize the same personnel, facilities, and communication systems, necessitating coordinated planning to avoid resource conflicts. The COOP Plan is the roadmap for the implementation and management of an organization’s Continuity of Operations Program, and sections within the document may include:

- **Essential Functions:** The core activities that must be performed to continue the organization’s mission, especially after a disruption of normal activities.
- **Orders of Succession:** Provisions for the assumption of senior agency official’s responsibilities during an emergency if any of those officials are unavailable to execute their legal duties.
- **Delegations of Authority:** Identification, by position, of the authorities for making policy determinations and decisions. Generally, pre-determined delegations of authority will take effect when normal channels of direction have been disrupted and will lapse when these channels have been reestablished.
- **Continuity Facilities:** Locations, other than the primary facility, used to conduct essential functions, particularly in a continuity event. Continuity Facilities, or “Alternate facilities”, refers to not only other locations, but also nontraditional options such as working at home. (“teleworking”), telecommuting, and mobile-office concepts.
- **Continuity Communications:** Communications that provide the capability to perform essential functions, in conjunction with other agencies, under all conditions.
- **Vital Records Management:** The identification, protection and ready availability of electronic and hard copy documents, references, records, information systems, data management software and equipment needed to support essential functions during a continuity situation.
- **Human Capital:** During a continuity event, emergency employees and other special categories of employees who are activated by an agency to perform assigned response duties.
- **Tests, Training, and Exercises (TT&E):** Measures to ensure that an agency’s continuity plan can support the continued execution of the agency’s essential functions throughout the duration of a continuity event.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- **Devolution of Control and Direction:** The capability to transfer statutory authority and responsibility for essential functions from an agency's primary operating staff and facilities to other agency employees and facilities.
- **Reconstitution:** The process by which agency personnel resume normal agency operations from the original or replacement primary operating facility.

Developing both recovery and COOP plans in tandem ensures that continuity strategies align with recovery objectives, providing a cohesive approach to emergency management. If a formalized COOP plan exists, it should be described and referenced. Depending on the ownership of the airport, COOP may be in coordination with the local jurisdiction, following FEMA guidelines and local governance. There should be close collaboration with these entities to ensure proper COOP plan development and implementation.

### **DIRECTION, CONTROL AND COORDINATION**

This section describes the framework for all direction, control, and coordination activities. It identifies who has recovery oversight. Additionally, the direction, control, and coordination section explains how multijurisdictional coordination systems support the efforts of organizations to coordinate efforts across jurisdictions while allowing each jurisdiction to retain its own authorities.

**Governmental Coordination:** Local governments are responsible for first response to emergencies impacting their jurisdictions including the acquisition of resources and funding to support emergency operations.

Disasters have an immediate impact on local resources resulting in shortages that may require the unplanned expenditure of funds or the need for additional outside resources. In addition, coordination may be required between local, state, and federal organizations to administer the disaster declaration process designed to assist in the response and recovery from disasters. The extent of Federal support will be based in part on existing statutory authorities and the availability and applicability of resources.

Supplemental state assistance for resource support and eligible expenses incurred by government agencies may be available through an Executive Order by the Governor after a local emergency or disaster declaration is issued. Each state may have different or additional types of coordination and reporting procedures and should be considered and referenced during planning efforts.

Supplemental federal assistance for eligible response and recovery expenses incurred by governmental entities and participating not-for-profit agencies may be available from the Federal Emergency Management Agency (FEMA) after a Presidential Disaster Declaration has been issued and a FEMA/State Agreement has been signed.

Opportunities for increasing community resilience during recovery is strengthened by collaboration among stakeholders, including State Disaster Recovery Coordinators (SDRC), Tribal/Territorial Disaster Recovery Coordinators (TDRC), and Local Disaster Recovery Managers (LDRM). That collaboration can enable a broad understanding of the recovery needs and capability gaps, the tools and resources available, the ongoing development and delivery of quality data that increases public awareness of future risk, and identification of priorities to make informed decisions with best available data.

**Mutual Aid:** This section describes the availability and process for implementing existing mutual aid agreements, including those set by governmental jurisdictions. When implementing mutual aid ensure outside resources/agencies are informed of points of contact, anticipated needs, and specific personnel/resource

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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requests. The section should also include the processes and procedures for establishing locations suitable for check-in, staging, operating, and demobilization.

- **Airport to Airport Mutual Aid:** Southeast Airport Disaster Operations Group (SEADOG) is an informal collection of airports who have come together to provide operational assistance to other airports hit by natural disasters, such as hurricanes, tornadoes, or floods. SEADOG coordinates fast responses to specific operational needs, supplying teams of volunteer airport staff and necessary equipment needed to return an airport to operational status. SEADOG works closely with WESTDOG, its Western United States counterpart. Participation in SEADOG is voluntary and open to all.

Upon arrival, mutual aid partners may request a situational report and communication plan. The following are items that may be included when distributing information to outside agencies/resources:

- Ongoing Safety concerns/hazards
- Aircraft Operations (airfield conditions, NOTAMs, TFRs, ATC status)
- Airport security status (secured, sterile, controlled, accessible, inaccessible)
  - Including badging/identification process and needs for external support
- Maps (airport diagrams, staging, fueling, security gates, electrical vaults, sign plans, public and airport roadway infrastructure, parking, gate areas, concourses, terminals)
- Resource inventory list (equipment, supplies, locations, procedures)
- Airport stakeholder communications (emergencies, security, departments, operations, management, tenants, TSA, Fire Department, Police, Customs)

### **INFORMATION COLLECTION, ANALYSIS, AND DISSEMINATION**

This section describes the critical or essential information common to all operations identified during the planning process. It identifies the type of information needed, the source of the information, who uses the information, how the information is disseminated, the format for providing the information, and any specific times the information is needed. This section may be expanded as an annex. Additional information that may be included within this section:

- Strategies for collecting, analyzing, and sharing information about the condition of airport lifelines.
- Description of long-term information collection, analysis, and dissemination strategies.

### **COMMUNICATION AND COORDINATION**

This section describes the internal and external communication protocols and coordination procedures used between recovery organizations during emergencies and disasters. It discusses the framework for delivering communications support and how the airport's communications integrate into the regional or national disaster communications network. It does not describe specific procedures found in departmental SOPs/SOGs. Planners should identify and summarize separate interoperable communications plans. This section may be expanded as an annex and is usually supplemented by communications SOPs/SOGs and field guides.

### **ADMINISTRATION, FINANCE, AND LOGISTICS**

This section covers general support requirements and the availability of services for identified disasters, as well as general policies for managing resources. Planners should address the following in this section of the plan:

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Authorities for and policies on augmenting staff by reassigning employees and soliciting volunteers, along with relevant liability provisions.
- General policies on keeping financial records, reporting, tracking resource needs, tracking the source and use of resources, acquiring ownership of resources, if this section is expanded, it should be broken into individual functional annexes—one for each element.
- The section also includes the coordinating efforts between recovery teams, claims adjusters, and insurers. These activities will necessitate early involvement from insurers and continuous insurance claim documentation review to ensure all required claims and relevant contractual agreements are properly filed and managed.

**Administration:** Describes administrative protocols used during recovery operations including incident documentation and after-action reporting.

- **Incident Documentation:** Briefly describes the processes to document, and the significance of maintaining detailed records during both the response and recovery phases of the disaster (e.g., create historical records, recover costs, address insurance needs, develop mitigation strategies). This section should also include:
  - The ICS Documentation Section’s responsibility to include copies of required reports (e.g., cost recovery, damage assessment, historical record).
  - Description of the agencies/workgroups and methods that the ICS Documentation Section should engage to create a permanent historical record of the incident (after-action report) and include information identifying the actions taken, resources expended, economic and human impacts and lessons learned as a result of the disaster.
- **After-Action Report:** The after-action report is the result of an administrative process in which the airport reviews and discusses the response to identify strengths and areas for improvement in the emergency management and response/recovery program. It may also include an improvement plan that outlines corrective actions. The sections should describe how the airport plans to implement corrective actions and/or addresses the deficiencies/recommendations identified from the reporting process.

**Finance:** Identifies and describes how the airport plans to document the costs incurred during response and recovery operations. This section also describes the airport’s finance department’s role relevant to disaster related payments and procurements, along with planned efforts to provide guidance and support to all stakeholders regarding insurance claim processes throughout recovery. Costs associated with recovery that should be tracked include:

- Tracking personnel hours
- Supplies
- Materials
- Equipment
- Activities
- Any other disaster-related costs to ensure eligibility for obtaining FEMA declarations/grants and receiving reimbursements and payments for staff and projects during recovery.

**Logistics:** This section describes the logistics and resource management mechanisms to identify and acquire

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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resources, including those outside of the airport's capabilities, and in advance of/during recovery operations. Information that may be included:

- Existing agreements, understandings, and contingency contracts with resource management organizations.
- Information on specialized capabilities including equipment, facilities, and personnel available to support ongoing recovery activities.

### **DEMOBILIZATION**

Defined as the release and return of resources that are no longer required. Demobilization does not necessarily signify the end of a recovery support mission, as those activities will transition in some cases to other forms of support. Activities associated with demobilization can occur at any time during or after an incident and is typically prepared by the Planning Section within the EOC. The demobilization plan may depend on the size of the incident, airport capabilities, airport needs, pre-established procedures, and jurisdictional coordination efforts. Typically, jurisdictional demobilization planning includes:

- General information
- Responsibilities
- Release priorities
- Checklists
- Release procedures

These sections will need to meet the needs of the individual airport, but further guidance includes:

**General Information:** Describes the situational overview, including how the response is transitioning from the emergency response phase to a planned recovery effort. The section highlights that the demobilization of incident resources must be conducted in an efficient and safe manner and shall not interfere with ongoing incident operations. Initiation and approval process for the authorization to release resources from the Incident, including documentation delivery should also be included.

**Responsibilities** The following are examples of responsibilities to include within this section:

- Preparing the Demobilization Plan.
- Review and approve the Demobilization plan.
- Identify any excess personnel and equipment available for demobilization.
- Identify and decontaminate all tactical resources, as needed.
- Compile "Tentative" and "Final" Release sheets.
- Review and approve all tentative release sheets.
- Establishing the release priorities.
- Notification process regarding tentative and final releases from the incident.
- Documentation review including the Demobilization Checkout Form (e.g., ICS Form 221).
- Coordinate transportation arrangements following release.
- Ensure personnel scheduled for release have good facilities for proper rest.
- Ensure that all non-expendable items are returned or accounted for prior to release.
- Coordinate support vehicle inspections and ensure adequate supply to assist resource/personnel release.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Ensure provided communication equipment (radios, phones, etc.) are returned or accounted for.

**Release Priorities:** The following are examples of release priorities:

- Personnel welfare (safety and rest)
- Needs of the assisting/cooperating agencies
- High dollar assets
- Local government response resources

**Checklists:** ICS Form 221 (Demobilization Check-Out) is a useful resource for demobilization planning, and should be referenced when creating resource release checklists

**Release Procedures:** This section should include the notifications, processes, and document approvals to obtain authorization for release.

**Additional Considerations:**

- While the EOC is activated, Incident Command will be responsible for approving resource orders and demobilization.
- Special consideration should be taken to ensure the collection, inventory, refurbishment, rehabilitation, or replacement of resources depleted, lost, or damaged during response and recovery are well documented. This includes distinguishing non-expendable vs expendable resources:
  - Nonexpendable resources:
    - Account for resources returned.
    - Restore resources to functional capability.
    - Replace broken and/or lost items.
  - Expendable resources:
    - Account for resources used.
    - Reimburse for expendable items used.
    - Return and restock items.
- Ensure that all paperwork, such as personnel evaluations, equipment time records, personnel time records, accident reports, and mechanical inspections have been completed and are accurate.
- Travel information: All resources must meet their individual agency regulations pertaining to rest, travel, and demobilization, but information that should be made available include:
  - Method of travel
  - Personnel
  - Destination
  - ETD/ETA Home Base
  - Transportation arrangements

## **PLAN DEVELOPMENT AND MAINTENANCE**

This section discusses the overall approach to planning and the assignment of plan development and maintenance responsibilities. This section should:

- Provide description of the planning process, participants in that process, and how development and revision of different “levels” of the recovery plan (basic plan, annexes, and SOPs/SOGs) are coordinated during the preparedness phase.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Assign responsibility for the overall planning and coordination to a specific position.
- Establish a regular cycle of training, evaluating, reviewing, and updating of the plan.
- Describe the process to review and revise the plan periodically (e.g., annually, more often if changes in the airport warrant, such as changes in administration or procedures, newly added resources/training, revised phone contacts or numbers).
- Describe the responsibility of each organization/agency to review and submit changes to its respective portion(s) of the plan, including ongoing efforts to ensure that the plan provides equitable treatment for all members of the airport community.

### **RECOVERY FUNCTIONAL AREA ANNEXES**

Functional, support, or agency-focused annexes add specific information and direction to the recovery plan. They focus on critical operational functions and who is responsible for carrying them out. These annexes clearly describe the actions, processes, roles, and responsibilities that agencies and departments conduct during the various phases of recovery. While the basic plan provides broad, overarching information relevant to the recovery as a whole, these annexes focus on specific responsibilities, tasks, stakeholder coordination, and operational actions that pertain to the performance of a recovery functional area.

**Annex implementation instructions:** Each annex, as well as the basic plan, may use implementation instructions in the form of SOPs/SOGs, maps, charts, tables, forms, and checklists and may be included as attachments or references. The recovery planning team may use supporting documents, as needed, to clarify the contents of the plan or annex.

Figure 6 provides a sample of a RFA Annex workgroup action list. See Attachment 7 for additional sample roles, responsibilities, and action items that airports may include within their recovery plans. These sample items will need to be tailored and allocated to the individual airport's RFA and workgroups.

**Figure 6: RFA Annex Example**

<h1>Airport Safety</h1>
<b>RECOVERY ROLES AND RESPONSIBILITIES</b>
<ul style="list-style-type: none"><li>• Actively promote the section's safety goals and objectives throughout the recovery process.</li><li>• Foster personal stewardship of the resources available to aid in injury, accident, and loss prevention as well as promotion of a healthful workforce.</li><li>• Performs safety risk assessments for changed conditions, temporary plans, or repairs.</li><li>• Promote safe practices and personal safety awareness through education and safety leadership during stressful response and recovery operations.</li><li>• Create and maintain call list of PPE vendors, testing labs, task subject matter experts, etc. that can be utilized by recovery support personnel.</li><li>• Effectively communicate emergent safety issues with management and impacted stakeholders and proffer a variety of solutions to reach a resolution.</li></ul>
<b>TRANSITION PHASE ACTIONS (24-48 HOURS)</b>
<ul style="list-style-type: none"><li>• Protect public safety by helping to identify structures or areas for which access should be restricted.</li></ul>

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Coordinate a method to communicate building safety status areas with the travelling public, stakeholders, and employees.
- Continuously monitor recovery efforts to ensure personnel follow all necessary safety guidelines and regulations.
- Assist stakeholders with implementation and evaluation of safety plans to meet Airport's expectations.

#### SHORT-TERM PHASE ACTIONS (48 HOURS-1 WEEK)

- Coordinate with stakeholders to promote public awareness of available resources and services for employee health, wellness, and safety.
- Work with concessions, airlines, and security to establish safety and security process and criteria for allowing tenants into their affected workspace.
- Coordinate initial safety expectations with recovery contractors without previous airport work history.
- Initiate and facilitate as necessary frequent safety briefings to ensure up to date information transfer.
- Identify environmental safety concerns that may require further assessment and/or contract remediation (e.g., air quality, mold, etc.).
- Maintain a steady presence throughout the recovery process to assist with safety related concerns.
- Continue monitoring, as deemed necessary by Airport Safety personnel, recovery efforts to ensure personnel follow all necessary safety guidelines and regulations.

#### INTERMEDIATE RECOVERY ACTIONS (1 WEEK- 1 MONTH)

- Help coordinate the distribution of safety information to the travelling public, stakeholders, and employees on ongoing airport safety recovery Initiatives.
- Coordinate contractors for environmentally impacted areas for remediation with environmental and maintenance.

#### LONG-TERM RECOVERY ACTIONS

- Evaluate recovery efforts to ensure safety guidelines and regulations continue to be adhered.
- Establish policies and procedures that reflect long term changes caused by ongoing recovery efforts.

#### INFORMATION COLLECTION AND PROPOSED MEASURES OF RECOVERY PROGRESS

- Personal protection equipment inventory availability
- Shift from 24-hour safety presence to standard operations
- Increase in implementation of safety suggestions.
- Decrease in safety consultations.

#### ASSOCIATED SOGS, PLANS, OIS, AND OTHER DOCUMENTS

## **Appendix: Damage Assessment Plan**

Assessments are crucial activities needed during all phases of an emergency. Damage assessments are a subset of the overall disaster assessment and should be an ongoing and repetitive process. Assessment activities such as these provide immediate data to emergency decision-makers as well as those involved in recovery planning. The appendix focuses on damage assessments at an airport. To provide the urgent data to the necessary parties in the aftermath of an emergency, damage assessment activities should begin as soon as possible during the response phase once scene safety has been established. The purpose of assessment activities is to determine the impacts the incident has had on the airport, determine the needs and priorities for remediation, identify resources available and needed, identify development opportunities, and monitor the recovery process so that recovery can happen as quickly and efficiently as possible.

The appendix should provide general guidance while maintaining the needed flexibility to react based on the details of each unique event and information gathered during assessment. The individual sections and workgroups listed under the recovery plan should be responsible for developing their own internal procedures for implementing their responsibilities under the damage assessment appendix.

### **TABLE OF CONTENTS**

The table of contents should be a logically ordered and clearly identified layout of the major sections and subsections of the plan that will make finding information within the plan easier.

### **PURPOSE, SCOPE, AND ASSUMPTIONS**

**Purpose:** The purpose sets the foundation for the rest of the damage assessment appendix. The purpose is a general statement of what the appendix is meant to accomplish.

In the aftermath of a destructive event, the transition from emergency response to short, intermediate, and long-term recovery is dependent on the ability for the airport to assess the damage incurred and to identify resources needed to return to normal operations. The purpose of the damage assessment appendix is to establish a process for collecting, analyzing, and addressing those needs. The damage assessment process should be flexible and scalable enough to apply to minor incidents as well as catastrophic disasters. The document should identify participants, priorities, communication flow, and anticipated actions by participating stakeholders. Stakeholders, for the purposes of the damage assessment appendix, could include the first responders, airlines, airport users, tenants, outside agencies, contract personnel, and any other outside entity that is needed to successfully complete damage assessment operations.

**Scope:** The damage assessment appendix should also explicitly state the scope of damage assessment activities and the entities (e.g., departments, agencies, stakeholders) and geographic areas to which the plan applies.

**Assumptions:** These identify what the planning team assumes to be facts for planning purposes in order to make it possible to implement the damage assessment appendix. During recovery, the assumptions indicate areas where adjustments to the plan must be made as the facts of the incident become known. Assumptions should be limited to those specific to damage assessments, example damage assessment appendix assumptions are as follows:

- All damage assessment activities will take place concurrently and continuously with, and in support of, other response and recovery activities.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Damage to telecommunications facilities may occur, slowing dissemination of information and reporting of persons needing help.
- Public safety and public communications (including cellular service, internet, and landline telephone access) may be limited or not available. It is expected that emergency radio communications, including responder emergency communications, the federal emergency alert system radio service and ham radio communications, may be limited.
- Damage to fixed facilities that generate or use hazardous or toxic chemicals could result in the release of these hazardous materials into external and internal environments.
- The Emergency Operations Center (EOC) may not be fully staffed with recovery personnel when damage assessment begins.
- The EOC will transition to recovery operations only when the initial emergency response phase has passed and immediate threats to life safety and property have been stabilized.
- Airport users (airline personnel, passengers, tenants) with unknown qualifications may attempt to assist with response potentially interfering with assessments.
- Not all areas will be available for assessments immediately due to factors such as accessibility, damage, debris, safety concerns, or weather conditions.

### **CONCEPT OF OPERATIONS**

The CONOPS section is a written or graphic statement that explains in broad terms the decision maker's or leader's intent regarding damage assessments. The CONOPS should describe how the organization accomplishes a mission or set of objectives to reach a desired end-state. Ideally, it offers clear methodology to realize the goals and objectives to execute the plan.

**Initiation, Activation and Notification:** This section describes the decision process at which the damage assessment plan will be implemented, who has overall responsibility, ongoing coordination, and ultimately the demobilization of the plan.

**Phases of Damage Assessments:** This section describes the attributes of different damage assessments that airports will incorporate into their planning efforts. These assessments may include:

- **Initial Size-Up:** This assessment takes place in the initial hours after an incident. The focus of the initial size-up is on the immediate life safety needs of individuals, search and rescue, and incident stabilization. The Initial Size-Up seeks to provide general information on damages to the airport, such as the location, size, magnitude, and type of damages incurred after a disaster. Initial size ups are conducted primarily by emergency response personnel upon arriving at a scene. Airport personnel should be available to assist emergency responders for these types of assessments, but only when considered safe to do so.
  - **Rapid Damage Assessment:** Taking place approximately 0-48 hours after an incident, the RDA provides the first description of the type and extent of the damages and associated impacts sustained by the airport. RDAs will be conducted by airport personnel, and any required airport stakeholders whose response is needed to complete the assessment. The RDA provides decision makers with a wider scope of more detailed information than the Initial Size-Up. This phase should begin to assess the status of lifelines (transportation, communications, operational capabilities, utilities - gas, electricity, water, etc.) status of critical infrastructure (radio and radar facilities, Air Operations Area and equipment) and magnitude of debris.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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The goal of a Rapid Damage Assessment is NOT to estimate dollar value of damage. The RDA is designed to:

- Confirm reported conditions.
- Estimate the overall magnitude of the damage including infrastructure.
- Identify personnel and operations at risk because of the emergency.
- Respond to the injured airport users and emergency response personnel.
- Identify immediate needs for:
  - Medical resources
  - Mass care
  - Fire, search, and rescue
  - Access and egress routes from the affected areas
  - Existing and potential threats
  - Locations that are unsafe to enter

During RDAs, the airport will rely on information provided by emergency responders, damage assessment teams, reports from the media and social media, 911 calls, and information gathered from airport personnel. The information gathered from the RDA will determine the need for further assessments including the initial damage assessment for possible financial reimbursement.

- **Initial Damage Assessment:** This assessment typically occurs after the first 48 hours following an incident. It is important to conduct Initial Damage Assessments (IDA) in a timely and prioritized manner to provide the airport with relevant information to support the response to areas of high need. IDAs may require the participation and coordination with the local jurisdiction as this will be the basis for additional resource requests. Formal assessment teams may be assembled and activated from the various Recovery Functional Areas who have assessment or inspection responsibilities. Debris Assessments may take place here concurrently.

Cost estimation should drive the IDA. A thorough description of damages in addition to all work needed to be performed as it relates to the recovery process should be identified by the subject matter experts (will vary depending on the incident) who are tasked with conducting and reviewing the information gathered.

An IDA will determine if impacts are severe enough to request assistance from state and federal government. It will gather information on the overall impacts to the airport including the businesses within, and the commitment level of local and outside resources. Information collected may be used to justify requests through the local jurisdiction for assistance from federal disaster programs. The IDA may also be used to determine capabilities of structures that have environmental, electrical, or other concerns that were missed during the Rapid Damage Assessment. More information on IDAs, including checklists and jurisdictional procedures should be made into specific attachments that can be accessed following a disaster.

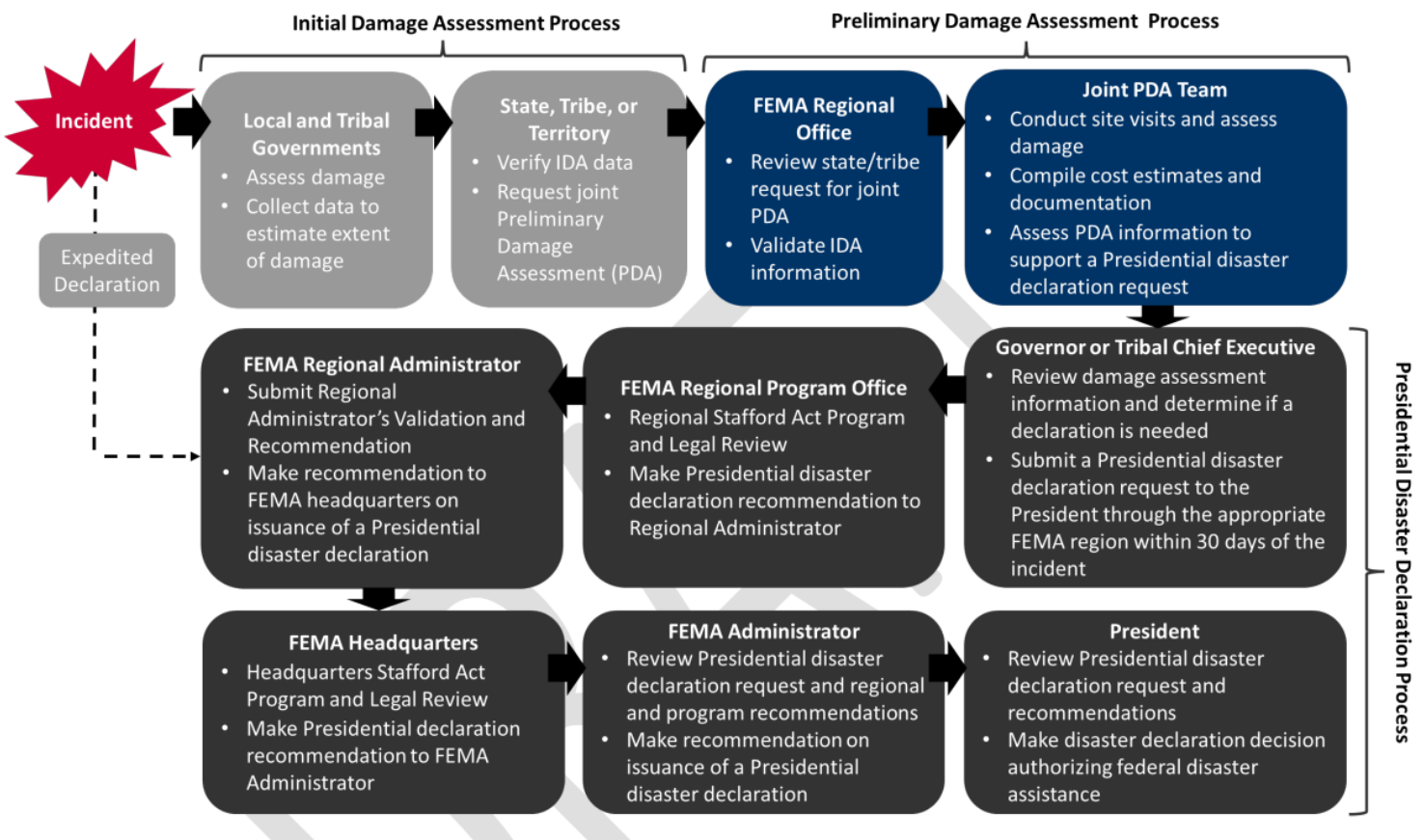
- **Preliminary Damage Assessment:** State and Federal assistance requires a formal request from the local jurisdiction. In the event of an emergency that warrants Federal aid from FEMA, the local jurisdiction will request a Joint PDA in coordination with the airport. Joint PDAs are scheduled by FEMA and the State and can take place as soon as two weeks following the event or up to several months.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

This assessment is more detailed and formalized than the IDA, as it involves an inspection by the airport personnel and agencies at the local, state, and federal levels. The Damage Assessment Branch will coordinate the subject matter experts best qualified to represent the airport during this type of assessment. The main goal of the PDA is to validate the data collected from the IDA, not to identify additional damages. The airport in coordination with the local jurisdiction will provide to FEMA a summary of the information that has been reported. FEMA will then coordinate with all relevant parties to discuss all data presented as well as determine team responsibilities and determine a PDA coordination briefing date and time if needed. Figure 7 details the PDA and Presidential Disaster Declaration Process Linkages.

**Figure 7: PDA and Presidential Disaster Declaration Process Linkages**



- Recovery/Stakeholder Assessment:** All damages may not be captured during the initial assessments, and if applicable the PDA. Recovery assessments will take place throughout the recovery process and serve two purposes:
  - To ensure all damages have been captured.
  - To ensure recovery actions are taking place.

The document should contain forms for incident assessments and individual site recovery progress that may be used by the airports and its stakeholders after a disaster.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

In the case of a FEMA declared presidential declaration, the airport will coordinate with the local jurisdiction to ensure all recovery assessment procedures and guidelines are being met to ensure reimbursement eligibility.

**Assessment Information:** This section should detail information that should be gathered during the various assessments to allow for a better overall picture of the incident as it progresses through the various stages of recovery. The information should be gathered through checklists either written or digitally captured. The document should contain checklists that may be used if digital formats are not available.

- Mobile Surveys:** Mobile damage assessment applications can increase the accuracy of information collected by serving as job aids that walk the assessor through the information required to evaluate damage. This standardized information intake approach, combined with the ability to attach photographs to each assessment conducted, allows for validation and feedback. Together, these elements increase the quality of information developed in the field and enable airports to further leverage the use of non-emergency management staff to conduct assessments and increase capability. FEMA has developed mobile surveys for conducting preliminary damage assessments (PDA). FEMA has also made templates for these surveys that are maintained by the FEMA PDA Program Office. These templates are publicly available resources that airports can use to create their own versions of a mobile survey platform. Templates can be accessed at [FEMA.gov/PDA](https://www.fema.gov/PDA).

Table 3 provides an example of an Assessment Information Guide that can help capture information needed for various assessment types.

**Table 3: Example Assessment Information Guide**

Assessment Information Guide							
Assessments	Rapid Damage Assessments (RDA)	Initial Damage Assessments (IDA)		Stakeholder (Initial)	Site Recovery	Incident	
		Public	Business			Status	Recovery
<b>Administrative Information</b>							
Location	X	X	X	X	X	X	X
Site No/Ref No (created for each site)	X	X	X	X	X	X	X
Owner and Contact Info	X	X	X	X	X	X	X
Facility Type	X	X	X	X	X	X	X
Priority Level (Command Determination)	X				X	X	X
Assessment Team and Contact Info	X	X		X	X	X	X
Assessment Training/Safety Briefings	X	X			X	X	X
Inspection Method (Air, Walk, Interview)	X	X		X	X	X	X
Date/Time – Assessment Start/End Time	X	X		X	X	X	X
Interviewee Name and Contact Info	X	X			X	X	X
Insurance/Risk Contact for Site					X	X	X
Location Category – (Reference IDA Attachment)		X			X	X	X
Assessment Description (overview)	X	X		X	X	X	X
Impact to Operations –(Contingencies)	X	X		X	X	X	X
Current Operations	X	X		X	X	X	X
PPE – (If provided, worn, available)	X	X		X	X	X	X
Reported vs Actual Conditions	X	X		X	X	X	X

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

## Assessment Information Guide

Assessments	Rapid Damage Assessments (RDA)	Initial Damage Assessments (IDA)		Stakeholder (Initial)	Site Recovery	Incident	
		Public	Business			Status	Recovery
Magnitude of Damage	X	X		X	X	X	X
Threats – (existing and potential)	X	X		X	X	X	X
Personnel at Risk	X	X		X	X	X	X
Protective Measures	X	X		X	X	X	X
Damage Level – (Reference IDA Attachment)	X	X		X	X	X	X
Historic codes for similar work		X					X
Recent Inspections/Maintenance reports (pre-disaster)		X					X
Personal Item Amounts	X	X		X			
Condition Level – (Reference RDA/IDA Guides)	X	X		X	X		X
Commercial estimating source report		X					X
Resource Needs	X	X		X	X	X	X
Work/Repairs completed – (in percentage)		X			X		X
Changes since last assessment	X	X		X	X	X	X
Estimated Days out operation			X		X		X
Number employed			X		X		X
Number of employees covered by Unemployed Insurance)			X				
Replacement Costs or Fair Market Values			X				
Estimated Total Loss		X	X	X	X		
Employee Time Related to Incident MGMT			X	X			X
Insurance Coverage			X		X		
Photo/Incident Documentation	X	X	X	X	X	X	X
<b>Debris</b>							
Locations	X	X		X	X	X	X
Type	X	X		X	X	X	X
Quantity	X	X		X	X	X	X
Priorities	X	X		X	X	X	X
Removal Capabilities Including Insurance	X	X		X	X	X	X
Removal Actions		X			X	X	X
<b>Life Safety</b>							
Fatalities	X	X		X		X	X
Injured	X	X		X		X	X
Sheltered	X	X		X		X	X
Transported	X	X		X		X	X
Evacuated	X	X		X		X	X
Unaccounted	X	X		X		X	X
<b>Hazards</b>							
Fires	X	X		X	X	X	X
Gas Leaks	X	X		X	X	X	X
Water status, leaks, including outside water pipe rupture	X	X		X	X	X	X
Water Depth		X			X	X	X
Electrical – Downed utility transmission lines	X	X		X	X	X	X
Chemical/HAZMAT- Biohazards Present	X	X		X	X	X	X
<b>Environmental</b>							
Status of Surface Drainage Conveyances and Outfalls	X					X	X

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

## Assessment Information Guide

Assessments	Rapid Damage Assessments (RDA)	Initial Damage Assessments (IDA)		Stakeholder (Initial)	Site Recovery	Incident	
		Public	Business			Status	Recovery
Drains Affected	X			X		X	X
Hazardous Materials/ Presence of Mold/Waste	X			X		X	X
Affected Waterways	X					X	X
Soils Affected							
Sanitary and Storm Water Sewer System	X					X	X
Other Environmental Nonconformities	X					X	X
<b>Utility/Power Status</b>							
Water – Pumps, Pipes, Sewer, Potable, Hot Water Heaters	X	X		X	X	X	X
Central Utility Plant– Pipes – Gas, Water, Furnaces, etc.							
Power – Lights, Equipment, Generators, etc.	X	X		X	X	X	X
HVAC – return air, AC units, etc.	X	X		X	X	X	X
Phone and Internet	X	X		X	X	X	X
<b>Structure Damage</b>							
Windows	X			X	X	X	X
Doors	X			X	X	X	X
Walls	X			X	X	X	X
Ceilings	X			X	X	X	X
Roof	X			X	X	X	X
Floors/Foundation	X			X	X	X	X
Other Structural Assessments (Bridges, Parking Structures)	X	X		X	X	X	X
<b>Fire/Paging Systems</b>							
Control/Annunciator Panels	X				X	X	X
Horn/Strobe devices/Pull Stations	X				X	X	X
Detectors	X				X	X	X
Emergency Communication System – Paging, FIDS	X				X	X	X
Sprinkler and Standpipe systems (Switches, Piping, Heads)	X				X	X	X
<b>Concessions</b>							
Kitchen Appliances (Microwave, Refrigeration, Freezer)				X	X		
Cooking Equipment -Sinks, Grills, Ovens				X	X		
Hood Fire Protections Systems				X	X		
Cabinets/Food Storage				X	X		
Ventilation Hood				X	X		
Preparations Counters				X	X		
Broilers				X	X		
<b>Security/Access</b>							
Access Control Status	X	X		X	X	X	X
Conveyances– associated mechanical rooms/equipment	X				X	X	X
Secured/Sterile/Controlled Area Status					X	X	X
ADA Accessibility	X	X		X	X	X	X
Ingress/Egress	X	X		X	X	X	X
Access Level – Safe, Restricted, No Entry	X	X		X	X	X	X
Security Status – Protection During Incident	X	X		X	X	X	X
Occupiable/Operable during repairs		X			X	X	X

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

## Assessment Information Guide

Assessments	Rapid Damage Assessments (RDA)	Initial Damage Assessments (IDA)		Stakeholder (Initial)	Site Recovery	Incident	
		Public	Business			Status	Recovery
<b>Contents/Assets Damaged – Total Number</b>							
Assets (Asset Tag # and Location/Room)	X			X	X		
Art		X		X			X
Estimated Content Loss			X	X			
Furniture				X			
Supplies				X			
Electronic Equipment – Printer, Computers, Photocopiers				X			
Telephones				X			
Vehicles	X			X			
Operational Support				X			
Records				X			
<b>Roadways</b>							
Lighting (Traffic Lights, Roadway Lighting)	X	X				X	X
Signage (Roadways, Speed Limits, Detours/Messaging)	X	X				X	X
Pavement, Barricades, Markers, Culverts, Traffic Control Devices.	X	X				X	X
<b>Incident Status/Recovery Specific Assessments</b>							
Incident Command and Structure						X	
Status – Improving, Stable, Worsening						X	X
Weather – Current/Forecasted						X	
Infrastructures Impacted and Type						X	X
Access Levels for Affected Sites						X	X
Critical Infrastructure and Operational Status						X	X
Life Safety including Triage Locations, Search and Rescue						X	
Imminent Hazards						X	
Flight/Business Operation Status						X	X
Family Assistance/Services						X	X
Businesses Reopened							X
Service/Facilities Restored							X
Notifications and Methods including Briefings/Paging						X	X
Road Closures/Detours/Alternate Routes						X	X
Resource Requests						X	X
Response Limitations						X	X
Contingency Operations						X	X
Facilities on Generator						X	X
Inaccessible Locations						X	X
Recovery Operations – current/planned					X	X	X
Emergency Protective Measures					X	X	X
Strategic Objectives						X	X
Incident Containment						X	X
Locations Affected and Assigned Priority/Ref Number						X	X
Aircraft Damages						X	
Mutual Aid/Government Assistance		X				X	X

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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**Organizational Structure:** This section should depict and describe the Damage Assessment Organizational Chart that is formed when the airport disaster recovery plan, specifically the damage assessment appendix is implemented. It highlights the various roles and responsibilities, coordination efforts, and how each role relates to the overall recovery organizational structure.

The damage assessment organizational structure should begin with the Damage Assessment Branch normally established during the response phase of an incident. The Incident Commander (IC)/EOC Manager will be responsible for assigning the Damage Assessment Branch Director before the Recovery Sponsor or Recovery Functional Areas are activated for recovery operations. This will occur to allow damage assessment operations, such as initial size ups, to proceed while still in the response phase of the incident. This role may be held by a leadership position within the airport, typically the maintenance department. The Damage Assessment Branch will be tasked with conducting the damage assessment operation activities. The branch should be scalable, and provide the necessary staff needed to progress successfully through all phases of recovery. Examples of specific roles within the Damage Assessment Branch include:

- **Damage Assessment Branch Director:** The airport may appoint a qualified individual to serve as Damage Assessment Branch Director for any scale event. The Damage Assessment Branch Director should oversee and coordinate all damage assessment activity, including team assignments. The Branch Director will also coordinate with the applicable sections within the EOC for damage assessment support, and reports to the Operations Section Chief.
- **Damage Assessment Field Coordinator(s):** The Damage Assessment Field Coordinator(s) is responsible for coordinating the activities of Damage Assessment Teams, and ensures information is shared between teams. This information is then provided back to the Damage Assessment Branch Director.
- **Damage Assessment Team(s):** Teams are comprised of individuals performing assessment activities in a collaborative process, with the goal of providing an accurate picture of an emergency's impacts. Additional assessments conducted by stakeholders inside leasehold areas will need to be coordinated and approved by the Damage Assessment Branch. Team composition will be determined by the Branch Director or Field Coordinator. This will include selection of a team leader as well as selection of team members in respect to their areas of expertise, agencies, and specific individuals. Selected team members will be appropriately trained, qualified, available, and willing to perform necessary activities to assess needs and damages after an incident.
- **Damage Assessment Data Coordinator:** The Damage Assessment Data Coordinator will organize, compile, and manage all data collection and reporting from field teams. The data will be used to compile reports, or generate workorders, and be provided to the Damage Assessment Branch Director who will disseminate the information to the EOC, or Recovery Sponsor when activated.

**Operational Workflow:** The operational workflow can be either a visual or chronologically listed representation of the general activities that may take place, relevant to damage assessments. It should include when specific assessments or tasks are conducted, by whom, and the possible outcomes based on the resulting actions.

The following is an example of a damage assessments operational workflow:

1. During incidents where Initial Size Ups are being conducted, the response personnel will determine the need for additional damage assessments. If determined that further assessments are required, then this Damage Assessment Appendix will be initiated.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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2. If not already activated and deemed necessary, the airport will activate the airport's EOC and establish a Damage Assessment Branch and Branch Director. The data from the initial Rapid Damage Assessment will be provided and incorporated into the evaluation of the event by the Planning Section of the EOC.
3. The RDA of damaged areas will begin as soon as first responders and responding personnel can safely enter the affected areas.
4. The Damage Assessment Branch Director will assign and contact Damage Assessment Field Coordinator(s), Damage Assessment Team Members, and additional relevant personnel in preparation for additional Damage Assessment Team deployments.
5. Damage Assessment Field Coordinator(s) and/or the Damage Assessment Branch Director will deploy Damage Assessment Teams to conduct additional/more detailed RDAs.
6. Based on assessment data provided by the Damage Assessment Branch Director the EOC Manager will collaborate with the local jurisdiction on whether damages are substantial enough to require additional/elevated damage assessments, including IDAs or PDAs. These will require close coordination with the local jurisdiction and the State, and Federal Government.
7. If proceeding with an IDA, the Damage Assessment Branch Director will evaluate all RDA data for the prioritization of the IDA assignments. Stakeholders and on call contractors may be contacted to assist in the assessment process, if needed.
8. The Director will notify the Field Coordinators of any developing situations and provide situational awareness to the Field Coordinators at regular intervals.
9. The Director will coordinate the needs of the Field Coordinators with the various branches to assure adequate resources are available to the teams.
10. The Field Coordinator(s) will provide situational awareness information from the Branch Director to the Team Members and from the Team Members to the Branch Director.
11. All IDA information will be given to the Damage Assessment Data Coordinator by the Damage Assessment Field Coordinator(s). Information collected through Damage Assessments will be aggregated into an IDA Summary Report and provided to the Damage Assessment Branch Director and to the Finance Section for proper dissemination in the EOC or within the RCTF.
12. The Damage Assessment Branch Director will review and then submit the IDA Summary report to the local jurisdiction.
13. The Damage Assessment Branch Director will coordinate with the local jurisdiction for all issues pertaining to PDA coordination dependent on monetary indicators collected from IDA information.
14. If applicable the Damage Assessment Branch Director will assign representatives to participate in the Joint PDAs, in which City, State and Federal agency staff visit damaged areas and independently assess damages alongside airport staff to verify damages and disaster declaration thresholds.
15. Following a Presidential Declaration, local jurisdiction (applicant) may receive FEMA (grantor) funding through the State (grantee). Prioritization of recovery efforts may need to be revisited, and change based on grant requirements and timelines.
16. If the airport does not meet the monetary indicators required for state or federal assistance, then repairs will continue to be managed by the airport's standard operation procedures in coordination with the local jurisdiction.
17. All incident documentation will be compiled by the RCTF/EOC who will conduct/create after action reviews and reports in accordance with the Disaster Recovery Plan.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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**Health and Safety:** This section will describe the overall goal of health and safety as it pertains to damage assessments and should provide a high-level description of the guidance and actions the airport will take to ensure the goal is met.

#### **ACTIONS, ROLES AND RESPONSIBILITIES**

This section describes the damage assessment specific actions, roles and responsibilities that workgroups will conduct through the phases of recovery. Not all workgroups will have specific actions that differ from the tasks located in the recovery plan annexes. Examples of specific actions, roles and responsibilities include:

- Establish and maintain communications with airport stakeholders, the public and the media for information on damage assessment operations.
- Provide Contract Security and/or authorize access for Damage Assessment Teams as needed within controlled or secured areas.
- Establish objectives and priorities of assessment teams.
- Assign teams to specific areas for assessment.
- Provide management oversight and logistical support coordination for assessment teams.
- Provide representation to perform Damage Assessment Branch responsibilities, including Branch Director in the EOC.
- Manage and coordinates assessments with designated assessment team leaders to ensure teams are organized, trained, equipped, and able to deploy when needed with the appropriate resources.
- Conduct Damage Assessment Branch briefings.
- Re-deploy or procure technology products/systems that may be utilized to assist with damage assessment activities including documentation, access control, site security, etc.
- Provide financial information to state and federal governments for emergency and recovery disaster relief.
- Work with the Damage Assessment Branch Director to collect specific information, such as insurance coverage, economic losses, number of structures affected, to determine if an SBA damage survey is necessary.
- Coordinate with local, state, and federal Damage Assessment Teams and the EOC Finance Section to begin documenting costs and damage estimates, as necessary.
- Seek alternative assessment methods. Using drones, satellite technology to replace putting humans into the situation of conducting assessments
- Distribute health and safety information to all personnel, including necessary training.
- Monitor compliance with the minimum safety standards, including corrective actions to be taken if personnel do not comply with the minimum safety standards.

#### **ADDITIONAL CONSIDERATIONS**

Additional considerations in reference to damage assessment planning include:

- **Comprehensive Coverage:** The plan should be thorough, detailing each phase of damage assessment from initial size-up to preliminary damage assessment (PDA) and recovery assessments.
- **Clear Roles and Responsibilities:** The roles of various stakeholders and the structure of the Damage Assessment Branch need to be defined, ensuring clear lines of authority and responsibility.
- **Phased Approach:** The use of a phased approach (Initial Size-Up, Rapid Damage Assessment, Initial Damage Assessment, Preliminary Damage Assessment) allows for structured and incremental information gathering and decision-making.
- **Assumptions and Realities:** The assumptions section realistically addresses potential challenges such as limited communications, safety concerns, and resource constraints.
- **Health and Safety Considerations:** The plan should include specific measures for ensuring the health and safety of personnel involved in damage assessment operations.
- **Flexibility:** The plan needs to emphasize flexibility to react to the unique details of each event, which is crucial for effective disaster management.
- **Coordination with External Agencies:** Incorporate coordination details with external agencies, such as neighboring airports, federal agencies, and private sector partners, to ensure comprehensive support and resource sharing.
- **Training and Preparedness:** Include a section on regular training and exercises for all personnel involved in damage assessments to ensure readiness and familiarity with the procedures.
- **Technology and Data Management:** Integrate the use of advanced technology (drones, GIS, mobile apps) for data collection and real-time reporting.
- **Communication Strategies:** Develop a detailed communication plan, including backup communication methods, to ensure continuous information flow even if primary systems are down.
- **Public and Stakeholder Engagement:** Include a strategy for public communication and engagement with airport users, airlines, and tenants to manage expectations and disseminate important information.
- **Resource Inventory and Management:** Maintain a detailed inventory of resources and personnel available for damage assessment and recovery, including mutual aid agreements with other airports or agencies.

## **Appendix: Debris Management Plan**

The Debris Management Appendix describes a strategy for the efforts of the removal and disposal of debris resulting from debris generating incidents. A coordinated effort will be necessary for the removal, collection, and disposal of debris generated from a small or large-scale event. The goal will be to use existing best practice strategies and methods, along with lessons learned, to manage and conduct debris operations in a timely, safe, effective, and fiscally responsible manner. Many factors can influence a debris operation including, but not limited to, the location, type, magnitude, duration, intensity of the event, cost, and response time. Due to the unpredictable nature of disaster events, debris management procedures must be flexible and dynamic.

Additionally, this document should include guidance regarding organization, contracting, documentation, responsibilities, temporary and final debris storage sites, resources, and tools to successfully implement and complete debris management operations. All debris removal activities should be managed in a systematic way that ensures the timely opening of roadways, the return of critical services, and the promotion of public health and safety.

During a presidentially declared disaster, the airport in coordination with the local jurisdiction, (an “applicant” or “subgrantee” to the Public Assistance Program) may conduct debris operations in any manner it deems appropriate. However, only costs associated with the airport’s facilities, and work deemed eligible according to FEMA eligibility criteria, complying with special consideration requirements are reimbursed under the Public Assistance Program. To ensure proper reimbursement, FEMA’s public assistance eligibility criteria, special consideration requirements, and administrative procedures must be followed when emergency response activities involve the management of disaster debris.

### **PURPOSE, SCOPE, ASSUMPTIONS**

**Purpose:** The purpose sets the foundation for the rest of the debris management appendix. The purpose is a general statement of what the appendix is meant to accomplish, including the goal of providing the airport with a framework to respond to, and recover from, a debris generating event.

**Scope:** The appendix should also explicitly state the scope of debris management activities and the entities (e.g., departments, agencies, stakeholders) and geographic areas to which the plan applies.

**Assumptions:** Assumptions: These identify what the planning team assumes to be facts for planning purposes to make it possible to implement the debris management appendix. During recovery, the assumptions indicate areas where adjustments to the plan must be made as the facts of the incident become known. Assumptions should be limited to those specific to debris management.

### **CONCEPT OF OPERATIONS**

The CONOPS section is a written or graphic statement that explains in broad terms the decision maker’s or leader’s intent regarding debris management. The CONOPS should describe how the organization accomplishes a mission or set of objectives to reach a desired end-state. Ideally, it offers clear methodology to realize the goals and objectives to execute the plan.

**Initiation, Activation and Notification:** This section describes the decision process at which the debris management plan will be implemented, who has overall responsibility, ongoing coordination, and ultimately the demobilization of the plan.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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**Organizational Structure:** This section should depict and describe the plan's Organizational chart that is formed when the airport disaster recovery plan, specifically the debris management appendix is implemented. It highlights the various roles and responsibilities, coordination efforts, and how each role relates to the overall recovery organizational structure.

The debris management organizational structure should begin with the Debris Management Branch normally established during the response phase of an incident. The Incident Commander (IC)/EOC Manager will be responsible for assigning the Debris Management Branch Director before the Recovery Sponsor or Recovery Functional Areas are activated for recovery operations. This will occur to allow debris management operations to proceed while still in the response phase of the incident. This role may be held by a leadership position within the airport, typically the maintenance department. The Debris Management Branch will be tasked with conducting the debris management operation activities. The branch should be scalable, and provide the necessary staff needed to progress successfully through all phases of recovery. Examples of specific roles within the Debris Management Branch include:

**Debris Management Branch Director:** The airport may appoint a trained individual to serve as the Debris Management Branch Director for any scale event. The Debris Management Branch Director will oversee and coordinate all debris management activity, including team assignments. The Branch Director will also coordinate with the applicable sections within the EOC for debris management support, and reports to the Operations Section Chief.

**Debris Management Teams:** Team members from different disciplines will perform debris management activities as needed. Team composition will be determined by the Branch Director and will include a team leader, and various members based on expertise, agencies, and qualifications. All team members must be qualified, available, and willing to assess debris management needs after an incident. Activities may include:

- Conducting/evaluating ongoing debris/recovery assessment data
- Estimating debris quantities and mapping haul routes
- Assist in the development of the debris collection strategy.
- Selecting and designing temporary debris management sites
- Assessing available landfill/Temporary Debris Management Site (TDMS) space
- Overseeing that work is performed in compliance with the terms of debris management associated contracts.
- Other actions identified/requested by the Debris Management Branch Director
  - Conducting/evaluating ongoing debris/recovery assessment data
  - Estimating debris quantities and mapping haul routes
  - Assist in the development of the debris collection strategy.
  - Selecting and designing temporary debris management sites
  - Assessing available landfill/Temporary Debris Management Site (TDMS) space
  - Overseeing that work is performed in compliance with the terms of debris management associated contracts.
  - Other actions identified/requested by the Debris Management Branch Director

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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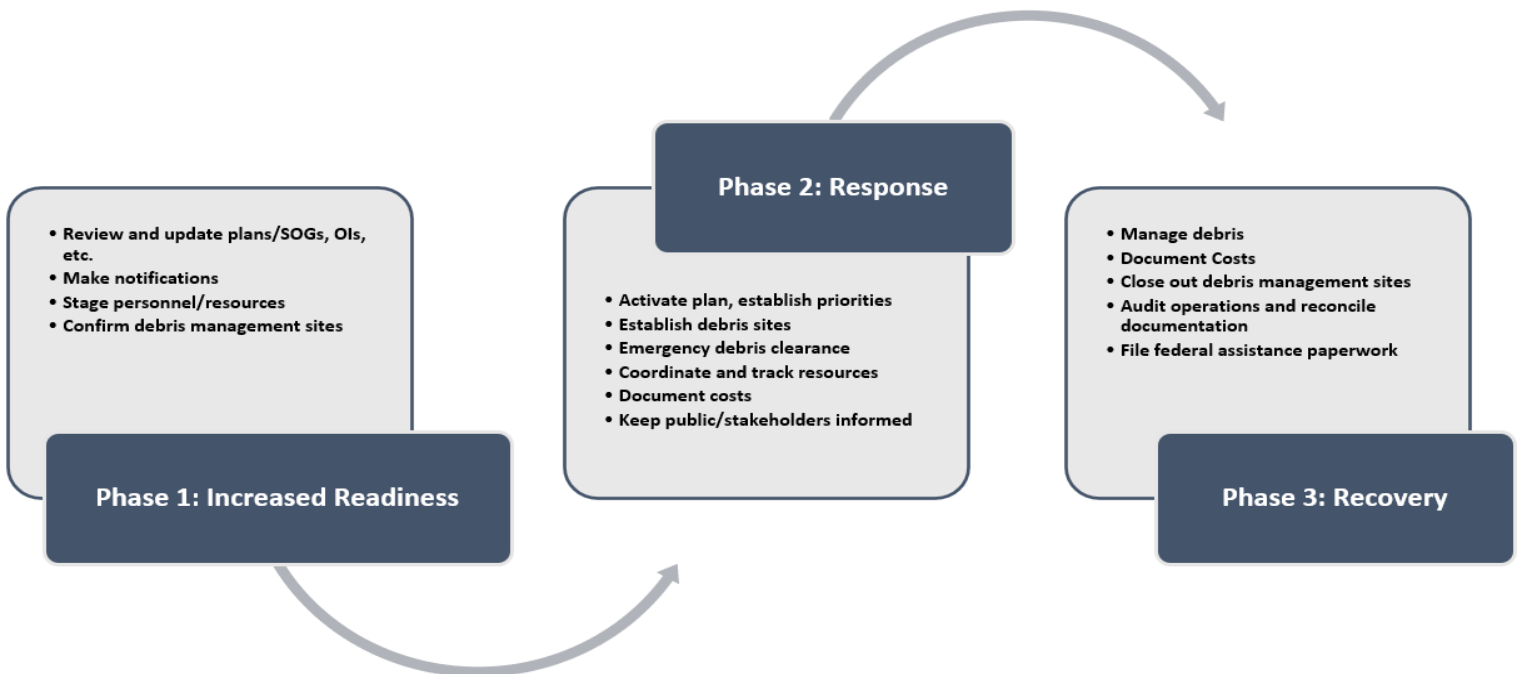
**Debris Management Operations:** Debris management operations following an event can be broken down into critical tasks throughout various phases of the project lifecycle. The plan should describe the airports way of addressing those critical tasks, which include the following:

- Emergency Debris Clearance
- Debris Removal
- Debris Staging and Storage
- Debris Disposal
- Debris Monitoring

Debris management operations are characterized by three phases. The three phases, as well as a detailed descriptions are as follows:

- Increased readiness
- Response
- Recovery

Depending on the event, advanced warning time, if any, and other factors, these phases may overlap.



#### PHASE 1: INCREASED READINESS

The airport will move to the increased readiness phase when an emergency capable of creating debris threatens the airport. During this time, staff will:

- Review and update plans, standard operating procedures, on-call contracts, and checklists relating to debris removal, storage, reduction, and disposal operations.
  - Review Debris Management Appendix with key personnel.
  - Alert those that have debris removal responsibilities to ensure that personnel, facilities, and
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- equipment are ready and available for emergency use.
- Relocate personnel and resources out of harm's way and stage in areas where they can be effectively mobilized.
- Notify pre-disaster contractors who may assist in debris removal process and make necessary arrangements to ensure their readiness to mobilize in the event of the disaster.

#### **PHASE 2: RESPONSE**

Immediately following an event, the airport will perform damage assessments as directed in the Damage Assessment Appendix. The damage assessments will also consider the identification of debris locations, types, quantity, and priorities.

Actions required during the response phase are usually completed within a matter of hours/days following a disaster event. The transition period from initial clearance activities to debris removal depends on the magnitude of disaster impact but typically happens following the first 72 hours after an event. The airport may anticipate using its own labor force and equipment to clear debris during this phase. In circumstances where the airport's existing labor force is not sufficient, or when specialized services are required, the airport in coordination with the local jurisdiction will supplement work efforts by awarding, or enacting existing, short-term debris removal contracts for specific work. Whether the work is performed using the local jurisdiction's own resources or by contractors, documentation will be necessary for FEMA coordination.

#### **Emergency Debris Clearance**

Debris removal during the response phase involves immediate actions to clear obstacles that hinder lifesaving efforts, facilitate search and rescue, address immediate threats to life and safety, allow access to critical facilities, and prevent further damage. Typically, debris is moved to a safe area, or the right of way (ROW), for road accessibility. The airport's ROW is determined by Incident Command and communicated by the EOC/RCTF. Once such debris is addressed, other debris can be removed, segregated, temporarily staged (for operational continuance) and stored (if necessary) then transported to a final disposal facility.

In addition to emergency debris clearance, debris management during the response phase activities may include:

- Implementation of the Debris Management Plan.
- Determination of incident-specific debris management responsibilities.
- Establishment of priorities.
- Identification and procurement of temporary debris management sites (TDMS).
- Activation of on-call contracts, if necessary, to support initial clearance and future debris removal activities.
- Coordination and tracking of resources.

#### **Debris Clearance and Removal Priorities**

Early in the response phase of an incident, the airport should develop debris removal priorities. These priorities may include:

- Emergency access routes
  - Potential staging areas
  - Critical facilities and infrastructure
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Roadways
- Operational and security facilities and infrastructure

Incident specific maps should be developed showing specific streets, roads, buildings, along with specific labor assignments that are pertinent to debris management operations.

#### **PHASE 3: RECOVERY**

Typically, the recovery phase begins within the first week following an event-after the emergency access routes are cleared and police, firefighters, and other first responders have the necessary access. Debris operations can continue for many months depending on the magnitude and scope of an event. During the recovery phase activities may consist of:

- The collection, removal, storage, reduction, and disposal of debris generated from the event in a cost-effective and environmentally responsible manner.
- Debris monitoring
- Continuation of documenting costs
- Upon completion of debris removal mission, close out debris sorting and reduction sites by developing and implementing the necessary site restoration in accordance with local, state, and federal regulations.
- Perform necessary audits and reconciliations of operation.
- Submit paperwork in coordination with the local jurisdiction for federal assistance, if applicable.

**Operational Workflow:** The operational workflow can be either a visual or chronologically listed representation of the general activities that may take place, relevant to debris management. It should include when specific tasks are conducted, by whom, and the possible outcomes based on the resulting actions.

The following is an example of a debris management operational workflow:

1. An RDA will be compiled in which locations, type, and magnitude of debris will be considered.
2. Based on assessment data, the EOC will make the decision to establish a Debris Management Branch, a Branch Director, and activate the Debris Management Appendix.
3. The Debris Management Branch Director will notify all relevant Recovery Functional Areas identified in this appendix that the Debris Management Appendix had been initiated.
4. The Debris Management Branch Director will develop an incident specific debris management strategy for recovery operations related to the event based on data provided from the Rapid Damage Assessment and any additional assessments conducted, as needed.
5. The Debris Management Strategy may contain, but is not limited to:
  - An estimate of amount of debris, cubic yard (CY) by type including harmful debris
  - Recommendations of how to manage harmful debris, if applicable
  - Identification of available resources including airport staff and on-call contractors. A determination to activate any contracts can be included in the plan.
  - Identification of temporary debris management sites to be utilized and any actions needed to make these sites operational such as permitting, fencing, security, and any reduction/recycling needs or equipment.
  - Identification of final disposal sites including hours, and exclusions

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- How information will be collected and disseminated including what mediums to utilize for reporting debris locations for those airport stakeholders affected by the disaster.
  - A stakeholder register including contact information and established roles of the debris management team, supporting agencies and external partners including State and Federal agencies, if applicable.
  - Description of debris needs, priorities, goals, and objectives.
  - Identification of potential type of debris operations needed to meet debris needs, priorities, goals, and objectives.
  - An anticipated schedule of recovery by task
  - Any debris related incident specific guidance
6. If additional resources such as dumpsters, debris monitors or debris haulers need to be procured, the Debris Management Branch Director will coordinate with the airport's EOC Logistics Section. If unable to fulfill the request EOC logistics will contact the local jurisdiction's EOC for additional contract procurement.
  7. Conduct debris management operations to accomplish the identified priorities, goals and objectives utilizing the tools and resources in this Appendix. Depending on the scale and scope of the operations certain activities and trainings may need to be conducted such as:
    - Truck certifications
    - Operational safety
    - Use of load tickets and/or any electronic debris management systems
  8. Debris crews will be deployed, as needed, to assess debris locations throughout the airport as reports and data continues to be gathered during operations.
  9. This Appendix will remain in effect until deemed unnecessary by the Debris Management Branch Director. Indicators for the demobilization of this Appendix may include:
    - Threats no longer exist to public health and safety.
    - Debris operations have been completed.
    - Temporary Debris Management Sites have been closed out.
    - Contracts and purchase orders have been closed out.
    - Airport leadership is comfortable with the amount of debris remaining, if any

**Tenant/Leasehold Debris:** This section describes how the airport will manage tenant/leasehold debris. This may include roles and responsibilities, locations, and organization action to help manage non-disaster debris from being introduced into ongoing recovery efforts.

**Debris Staging and Storage:** Once removed, debris will need to be staged or stored if not taken directly to its final destination. A Temporary Debris Management Site (TDMS) is a location for the airport to temporarily store, reduce, segregate, and/or process debris before it is hauled to its final disposal or recycling site. TDMS will be used to increase the operational flexibility and expedite recovery operations.

Below are advantages and disadvantages of TDMS:

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Flexibility of operations. The TDMS may also include a collection center for the affected stakeholders use.</li><li>• Facilitation of recycling and reduction of debris. Specific reduction, recycling, or segregation needs can be designed into the site.</li><li>• Expedition of debris collection. Having a site for temporary storage and reduction allows time for local landfill site preparation before final disposal. The TDMS may also be established at a location central to the disaster event, thereby reducing travel time from the disaster area to the disposal site.</li></ul>	<ul style="list-style-type: none"><li>• Additional cost to manage the debris twice. Once to the TDMS and the second time to final disposition.</li><li>• Additional costs for proper managing, planning, engineering, and permitting.</li><li>• Considerable time and effort required to complete environmental and historic preservation compliance reviews prior to establishing the site.</li><li>• Environmental review and potentially extensive site cleanup may be necessary to properly close the site.</li><li>• TDMS requires dedicated site management and staff for efficient operations, safety, and documentation considerations.</li></ul>

#### Identifying Debris Management Sites:

Considerations for choosing a site include:

- Sufficient in size with appropriate topography and soil type
- Located an appropriate distance from potable water wells and rivers, lakes, and streams.
- Not located in a floodplain or wetland
- Controlled to mitigate storm water runoff, erosion, fires, and dust.
- Free from obstructions, such as power lines and pipelines.
- Has limited access with only certain areas open to the public, such as areas to drop off debris.
- Located close to the impacted area, but far enough away from infrastructure and businesses that could be affected by site operations.

Depending on the debris to be stored and staged, local health and environmental authorities should assess the proposed TDMS to determine pre-existing conditions prior to the acceptance of debris, and ensure that the proposed TDMS does not affect any drinking water sources.

Whether the TDMS is located on airport property or off-site, the airport will ultimately be responsible for restoring a TDMS to its original condition and should follow the subsequent environmental, safety, and logistical considerations:

- Environmental monitoring. Areas that were used to stage vegetative debris do not typically require groundwater monitoring but should be monitored for fires. Areas used to stage mixed, Construction and Demolition (C&D) debris, or hazardous wastes will need more extensive monitoring.
  - If an environmental or cultural preservation concern is found during the baseline data collection process (described below), the potential site will be ranked lower than others.
  - If use of such areas is unavoidable, the State and local environmental and historic preservation requirements must be followed.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Data collection will be completed prior to establishing the site and continued throughout the operations.
- The final evaluation will include the same documentation to avoid disagreements on the condition of the site prior to the operations and the condition to which it was returned.
- Removal of debris from the site in a timely manner. Putrescent, mixed, harmful, and hazardous wastes debris types should not be stored for extended periods of time. Resource Conservation and Recovery Acts references a maximum of 90 days for hazardous waste and one year for universal waste. These types of debris should be removed daily or as soon as practical to prevent odors, vectors, human health hazards, and/or environmental releases.
- Limiting site access to ensure that the site is secure for wastes that present higher levels of concern.
- Storage areas for incoming debris shall be located at least 100 feet from property boundaries and on-site buildings/structures.
- Storage areas for incoming C&D debris shall be at least 100 feet from the site property boundaries, on-site buildings, structures, and septic tanks with leach fields or at least 250 feet from off-site commercial or public structures, and potable water supply wells, whichever is greater.

#### **Safeguards and Considerations for Recycling/Reduction Sites:**

- Storage areas for incoming debris should be at a minimum 100 feet from all surface waters.
- Final written approval is required to consider any temporary debris storage and reduction (TDSR) site to be closed. This will be done with close coordination the airport, and local health and environmental officials. Closeout of processing/recycling sites shall be within six months of receiving waste. If site operations will be necessary beyond this time frame, permitting of the site by the State may be required. If conditions at the site become injurious to public health and the environment, then the site shall be closed until conditions are corrected or permanently closed.

#### **Safeguards and Considerations for Hazardous Waste Bulking Sites:**

- Area to be used should be fenced/barricaded and covered with two layers of plastic sheeting, tarps, or a concrete pad.
- Surround fenced/barricaded area with absorbent booms (to absorb any potential leaks) or sandbags (to prevent spills from seeping into the ground)
- Use (wooden) pallets to raise collection bins off the ground (to ascertain potential leaks)
- Segregate containerized gases, liquids, or solids by material type (e.g., corrosive wastes, reactive wastes), place each material type in a separate bin or barrel, and label the bin or barrel appropriately.
- Cover collection bins or barrels with plastic liners/lids or cover the entire hazardous waste collection site with a tent to prevent water collecting in bins.
- Cylinders containing compressed gas should be placed upright with cap on and secured.
- Provide sufficient fire extinguishers for the site in case fire breaks out; four fire extinguishers per 10,000 square feet are recommended, placed at the corners or in easily accessible locations.

#### **Baseline Data Collection:**

Baseline data collection is essential to documenting the condition of the land before it is used as a TDMS. Property used as a TDMS must be returned to its original condition following the end of all debris operations. The following actions will be performed to document the baseline data on all sites:

- Thoroughly video/photograph (ground or aerial) each site before beginning any activities. Periodically update video and photographic documentation to track site evolution.
- Document physical features. Note existing structures, fences, culverts, irrigation systems, etc. that can help evaluate possible damage claims made later.
- Sample soil and water. Soil and groundwater samples should be collected prior to use of the TDMS site. If in-house assets are not available, the planning staff may consider establishing a contract with an environmental consulting firm that can respond rapidly. Planned hazardous waste, ash, and fuel storage areas should be sampled prior to site setup.

#### **Environmental Monitoring Program:**

To ensure that there are no sources of long-term environmental contamination remaining on the site, environmental monitoring, both during and after debris removal, is required to close a TDMS. Additional data will also be collected for quality assurance.

- **Sketch Site Operation Layout:** Periodically map or sketch activity locations so that areas of concern can be pinpointed later for additional sampling and testing.
  - **Document Status of Hazardous Materials:** Document operations that will have a bearing on site closeout such as petroleum spills at fueling sites, hydraulic fluid spills at equipment breakdowns or discovery of commercial, agricultural, or industrial hazardous and toxic waste storage.
  - **Document Quality Assurance Issues:** Document operations that will have a bearing on site closeout, such as petroleum spills at fueling sites, hydraulic fluid spills at equipment breakdowns, installation of water wells for stockpile cooling or dust control, discovery of hazardous waste, and commercial, agricultural, or industrial hazardous and toxic waste storage and disposal.
  - **TDMS Operational Considerations:** To the maximum extent possible TDMS should implement the following control features:
    - Storm-water controls, such as silt fences, to prevent discharge of contaminated runoff into water bodies.
    - Controls to prevent offsite migration of dust, wood chips or other debris residuals from vehicular traffic and from the handling of debris.
    - Clearly marked separate staging/processing areas for all material categories targeted for recycling or diversion.
    - Clearly marked entrance(s) and exit(s) for haulers and delivering materials.
    - Site layout that facilitates drop-off traffic flow and/or parking, while also separating truck loading/unloading and equipment operation from pedestrian traffic as much as possible.
    - Access control and security measures after operating hours to limit unauthorized access to the site.
    - Signs to inform haulers of the types of waste accepted, hours of operation, and who to contact in case of after-hours emergency.
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## EMERGENCY MANAGEMENT

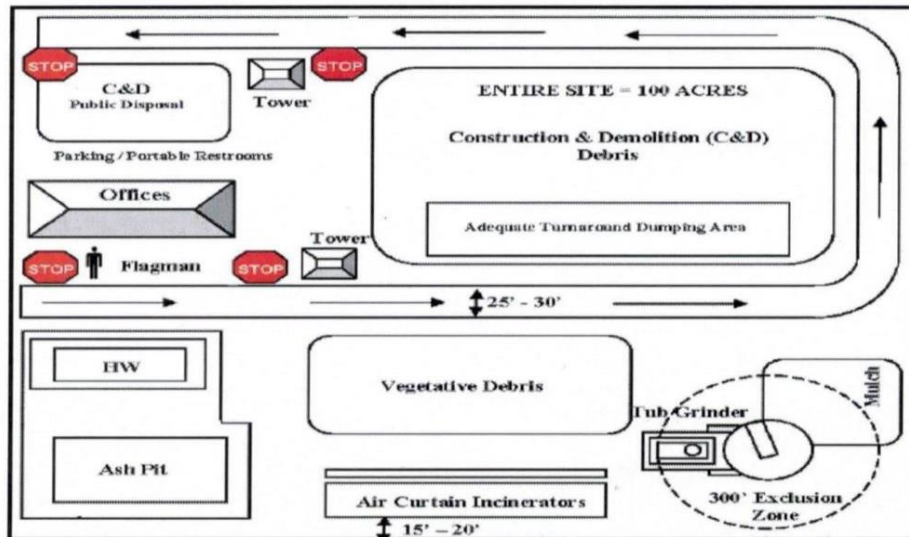
### Airport Disaster Recovery Planning Guide

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- Fire control equipment available on site (fire extinguishers, water connection, soil).
- If the TDMS is also an equipment staging area, fueling and equipment repair should be monitored to prevent and mitigate spills of petroleum products and hydraulic fluids.
- **Soil Monitoring:** Monitoring of the soils should be by portable inspection methods to determine if any of the soils are contaminated by volatile hydrocarbons. The contractors may do this if it is determined that hazardous material, such as oil or diesel fuel was spilled on the site. This phase of the monitoring should be done after the stockpiles are removed.
- **Groundwater Monitoring:** The monitoring of the groundwater should be done to determine the probable effects of rainfall leaching through either the ash areas or the stockpile areas.
- **Environmental Mapping:** Map activity location so areas of concern can be pinpointed later for additional sampling and testing.

#### Site Layout:

- **Design:** The TDMS will be designed to ensure debris is segregated by type, equipment has room to operate in a safe and efficient manner, and reduction activities can be accommodated. The table below demonstrates an ideal TDMS layout.



- **Buffer Zones:** The site must establish a buffer zone to abate concerns over smoke, dust, noise, and traffic in neighboring areas. Traffic patterns must be designed to accommodate on-site operations. Materials should be segregated based on planned volume reduction methods. Operations that modify the site, such as substrate compaction and over excavation of soils when loading debris for final disposal, will adversely affect site restoration.
  - **Separation Lines:** The separation between all the areas listed above needs to be clearly delineated and defined. As operations proceed, the lines may be moved to accommodate either growing demand for space or a reduction in preparation for closure.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- **Reduction, recycling, tipping, and loading areas:** The design should take into consideration the possibility of multiple pieces of equipment being in the same activity area at one time. Depending on the scale of operations, each debris stream may have its own tipping area and should be designed accordingly.
- **Drop-off areas:** Identify drop off areas for recycling, reduction, and construction and demolition debris that may be included within a TDMS. These areas should be carefully designed for passenger vehicle traffic and public safety.
- **Hazardous waste storage:** Establish hazardous waste storage close to the stakeholder drop-off center yet restricted so that qualified personnel may process the waste appropriately. The design staff may consider constructing an impermeable lining and earthen berms to contain spills and prevent surface water runoff from leaving the area.
- **Monitoring towers:** Should be located at ingress and egress points. Monitoring towers should be constructed of durable structural materials. The structures should be designed to withstand active and static loads. A stepladder is not an acceptable monitoring tower. Equipment and fuel should have a designated storage area, and signs posted appropriately. The fuel storage areas need to be designed to contain spills. Water should always be readily available. Water storage areas should be strategically positioned throughout the site and identified appropriately.
- **Operational boundaries:** The boundaries or areas that clearly define the difference in use areas at the TDMS. In establishing the operational boundaries, the TDMS design staff may consider using earthen berms, temporary barriers, or any other physical restriction. This aids traffic circulation and helps keep debris amassing at the TDMS to a minimum.

#### Traffic Patterns

- The traffic circulation needs to be well defined throughout the entire site.
- Flag personnel should be required to help direct traffic.
- Traffic pattern should allow trucks to enter and exit through different access points, as long as each is monitored.
- Haulers are typically paid by the volume of a load. The load is evaluated when entering the site as a percentage of the full capacity of the truck. Stationing monitors at ingress and egress points ensures every truck releases the entire load prior to leaving the site. This avoids debris left in a truck from a previous load from being counted again in a subsequent load.
- Empty trucks that enter the site to remove the processed (reduced) debris should enter and exit through an access point other than that of all other traffic.

#### Site Management

To meet debris management goals and ensure site efficiency, the airport must manage the site in coordination with the local jurisdiction by using in-house personnel or contracted services. A site manager, debris monitors, and safety personnel are essential for safe and efficient operations.

- **Site Manager:** The site manager is responsible for supervising the overall day- to-day operations, maintaining daily logs, preparing site progress reports, and enforcing safety and permitting requirements during site operations. The site manager is also responsible for scheduling the

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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environmental monitoring and updating the site layout. The site manager has oversight for monitoring the activities of the debris removal contractors and the onsite debris processing contractors to ensure they comply with the terms of their contracts.

- **Debris Monitors:** Airport monitors (whether force account or contractors) may need to be placed at ingress and egress points to quantify debris loads, issue load tickets, inspect and validate truck capacities, check loads for hazardous waste, and perform quality control checks. For Federally declared, or possibility of a Federally Declared disaster, the local jurisdiction will be responsible for ensuring that all required actions are being met.
- **Safety Personnel:** Safety personnel are responsible for ensuring traffic control and that site operations are in compliance with State and Federal occupational safety regulations.

#### Site Closure

The airport must ensure that a TDMS is properly remediated. Once a TDMS is no longer needed, it should be closed in accordance with the following guidelines. Closeout or re-approval of a TDMS should be accomplished within 30 days of receiving the last load of debris. The RCTF will coordinate with local and state public health departments to complete the following TDMS site closeout requirements:

- Remove all debris from the site, including debris residue.
  - Collaborate with State environmental agencies regarding acceptability of closure activities and established requirements.
  - The Debris Site Manager, and environmental personnel will coordinate with local official for an environmental assessment. The Debris site manager will also review and evaluate closure activities and progress.
  - Establish an independent testing and monitoring program for environmental remediation/restoration compared to baseline data of both public and leased sites.
    - **Air:** Air monitoring may be required during debris management activities for purposes of monitoring for fugitive particulates and other contaminants.
    - **Soil:** Sampling and testing of soils should be performed if it is determined that hazardous materials have been spilled or released at the debris management site. Monitoring should be conducted after the spill or release has been stopped and stockpiles are removed from the site.
    - **Ground and Surface Waters:** Groundwater and surface water monitoring may be necessary to identify potential impacts associated with leaching or runoff through or from stockpile areas or areas where hazardous materials have been spilled or released.
    - Follow requirements to minimize contamination of storm water runoff.
    - Adhere to solid waste regulations to avoid improper land disposal of solid waste.
  - Monitor all closeout and disposal activities to ensure that closeout specifications are completed.
  - Coordinate to implement the repair and restoration of the TDMS.
    - Damaged turf, vegetation shall be restored to initial conditions.
    - Physical structures, roadways, curbs, and gutters shall be repaired or replaced as needed.
  - Develop decision criteria for certifying satisfactory closure based on baseline information.
  - When the site operations are complete, the property must be restored to its original condition.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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**TDMS Closeout Report:** The RCTF will prepare a final debris management closure report detailing site closure activities. The report will document the amount, types (including Municipal Waste) and final disposal site of debris. The report will also contain:

- Site number and location
- Date closure was completed
- Equipment and temporary structures removed
- Spills and releases remediated
- Activities performed to restore the TDMS
- Comparison of baseline information to conditions after site closure activities has been completed.

#### **Debris Monitoring:**

The following section provides guidance related to debris monitoring in the event of, or possibility of federally declared disasters. Additional guidance on monitoring debris removal operations is located in Chapter 2 Section VI.A.8 in the FEMA PAPPG.

- The airport and local jurisdiction must monitor debris removal operations in order to document eligible quantities, location, and type of debris for Public Assistance grant funding.
- The airport may use force account resources, temporary hires, and/or contractors to accomplish the monitoring.
- The Debris Hauler and Debris Monitoring Company cannot be the same if utilizing private contractors to avoid a conflict of interest.

#### **Truck Certification**

If the airport utilizes a private contractor to haul debris, the hauler's equipment must be certified by debris monitors to verify the maximum capacity. Truck certification should include:

- Size of hauling bed in cubic yards
- License plate number
- Truck identification number assigned by the owner.
- Short physical description of the truck

#### **Monitoring Tips**

- Trucks should be measured before operations and load capacities should be documented.
- Maintain truck/trailer certifications with photos to ensure proper capacity certification.
- The airport should periodically re-measure the truck bed and re-certify the truck tare weight (encouraged to refrain from weight type costs when possible).
- Leave White Goods until the end of debris removal.

#### **Roles and Responsibilities**

Additional roles and responsibilities of debris monitoring can include:

<b>Loading Site Monitor</b>	<b>Tower/TDMS Monitor</b>
<ul style="list-style-type: none"><li>• Observes and documents the debris operations, ensuring conformity to the requirements of FEMA's Public Assistance (PA) Program, and the specific directions of the</li></ul>	<ul style="list-style-type: none"><li>• Does not allow any truck to dump without a proper Load Ticket or placard with correct truck number to match ticket.</li></ul>

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

local jurisdiction.	
<ul style="list-style-type: none"> <li>Ensures documentation is concise but complete and accurate (load tickets, daily reports of activities).</li> </ul>	<ul style="list-style-type: none"> <li>Calls a fair percentage full for each truck arriving at the TDMS Tower.</li> </ul>
<ul style="list-style-type: none"> <li>Certify debris hauler’s truck capacities and equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Makes accurate calculations based on truck’s capacity and called load, and applying FEMA policies accordingly.</li> </ul>
<ul style="list-style-type: none"> <li>Verifies the location(s) of assigned loading sites daily, accurately recording them on Load Tickets (including GPS coordinates, if applicable).</li> </ul>	<ul style="list-style-type: none"> <li>Ensures the load is dumped in the proper location (segregated based on debris type).</li> </ul>
<ul style="list-style-type: none"> <li>Monitors the contractor’s operations and activities, to include Work Zone Traffic Control (WZTC), Maintenance of Traffic (MOT) setups, and safety.</li> </ul>	<ul style="list-style-type: none"> <li>Ensures TDMS operations continue so that one operation does not adversely affect another (dumping, stacking, reduction, disposal).</li> </ul>
<ul style="list-style-type: none"> <li>Recognizes eligible vs. ineligible debris and roads, and ensures debris is not collected from ineligible areas unless specifically directed by the airport.</li> </ul>	<ul style="list-style-type: none"> <li>Ensures trucks are completely empty upon exiting the TDMS, always looking for false bottoms.</li> </ul>
<ul style="list-style-type: none"> <li>Ensures debris is not mixed during collection.</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of ingress and egress roads around the TDMS, so that they will remain clear of debris.</li> </ul>
<ul style="list-style-type: none"> <li>Properly classifies the various debris types.</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of ingress and egress roads around the TDMS, so that they will remain clear of debris.</li> </ul>
<ul style="list-style-type: none"> <li>Ensures truck capacity placard accuracy, and is aware of possible attempts of tampering with its information.</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of all safety considerations (personal and work location).</li> </ul>
<ul style="list-style-type: none"> <li>Comes prepared with required equipment, supplies, and materials, constantly being aware of all safety considerations.</li> </ul>	<ul style="list-style-type: none"> <li>Is always on the lookout for all types of potential fraud.</li> </ul>
<ul style="list-style-type: none"> <li>Maintains Load Tickets always while thoroughly completing applicable sections.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Chapter 2 Section VI.A.7.b for guidance on load calls for hand loaded trucks.</li> </ul>
<ul style="list-style-type: none"> <li>Is always on the lookout for all types of fraud.</li> </ul>	<ul style="list-style-type: none"> <li>Ensures the truck is empty before it leaves the TDMS.</li> </ul>
<ul style="list-style-type: none"> <li>Thoroughly documents all pre-existing and contractor-caused damage, including pictures of the damage.</li> </ul>	
<ul style="list-style-type: none"> <li>Ensures contractor does not “cherry pick” (process by which smaller piles are skipped so that larger piles can be collected).</li> </ul>	
<ul style="list-style-type: none"> <li>Properly and fully documents using the Load Ticket system, ensuring all previous sections have been thoroughly completed.</li> </ul>	

### Contracting

- Only FEMA has the authority to make eligibility determinations for PA grant funding.
- Monitoring contracts are typically time-and-materials and should contain a not-to-exceed clause per the requirements of 44 CFR Part 13.
- Contracted debris monitoring firms should submit the reports for determined operational periods. At a minimum, the report should contain:
  - Debris broken out by type and quantity collected from curbside and/or collection centers.
  - Debris broken out by type and quantity accepted at the TDMS and/or final disposition.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Debris broken out by type and quantity recycled/reduced at the TDMS and taken to final disposition.
  - Total cost for reporting period
  - Total project cost to date
- Information on reporting requirements and samples of debris monitoring forms, including daily activity logs, truck certifications, load tickets, and monitor logs may be available from the local jurisdiction.
- In events that are not eligible for federal reimbursement the airport may supplement work efforts by awarding, or enacting existing, short-term debris monitoring contracts through emergency procurement procedures.

#### **Debris Disposal:**

- Hours of operations, debris exclusions, tipping fees are always subject to change, especially following a debris generating event. The airport will check for current information for each alternate final disposal site before transporting debris.
- Landfill tipping fees usually include fixed and variable costs along with some special taxes or fees assessed by the jurisdiction.
- Examples of variable costs include costs for labor, supplies, maintenance, utilities, and gas or recovery systems.
- Fixed costs generally include equipment, construction, permits, landfill closure, post closure, and amortized costs for ancillary landfill building structures.
- Eligible landfill costs are limited to the variable and fixed costs that are directly related to landfill operations.
- When tipping fees include such costs, those costs are not eligible for Public Assistance grant funding.

#### **Debris Reduction, Reuse and Recycling:**

- Decision to recycle disaster debris should be made during the planning and coordination process with the local jurisdiction.
  - Planning staff may find that marketing and selling the debris is more financially attractive than hauling the debris to a local landfill.
  - One of the incentives for the FEMA Public Assistance Alternative Procedures (PAAP) Program for debris is retaining recycling funds.
  - The recycling and reuse of disaster debris is most often limited to metals, soils, and construction and demolition debris.
  - Recycling scrap metals and parts from white goods presents an opportunity to offset the collection and disposal costs. This also reduces the amount of waste going to a landfill.
  - Reduction operations can decrease the overall cost of a debris removal operation by reducing the amount of material that is taken to a landfill.
  - The airport should evaluate the types of reduction methods appropriate for the specific incident.
  - Reduction methods may include chipping and grinding or incineration (when permitted).
  - Processing disaster debris through grinding, shredding, or any other means without an understanding of the end uses and market specifications may result in the products becoming unusable for their intended purposes.
  - Processing may be necessary to turn the material into a usable product.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Processing can occur at a recycling facility or a TDMS.
- One method or a combination of methods may be utilized as appropriate depending on the type and anticipated volume of debris.
- The airport must ensure all Federal, State, and local laws are followed before any reduction activities begin.

Disposal Options for Categories of Debris				
Category	Recycling	Reuse	Reduction	Landfill
Putrescible Wastes	X		X	X
Treated Wood			X	X
Inert Environmental Debris	X			X
Construction and Demolition	X	X		X
Metals and White Goods	X		X	X
Automobiles	X		X	X
Electronic Waste	X			

**Harmful Materials Identification and Handling:** Regardless of the collection methods, certain types of debris will need to be identified and managed in different manners. Below are examples of how an airport can address these types of debris within a debris management plan:

- The airport will ensure all forms of hazardous wastes are separated into appropriate categories to prevent incompatible materials from reacting.
  - All state and federally regulated hazardous wastes will be managed in an appropriate hazardous waste treatment or disposal facility that complies with federal, state, and local regulations.
  - Prior to disposal or recycling, the airport's environmental subject matter experts will help facilitate the coordination with the local jurisdiction to determine if they have put into place any special conditions or exemptions and/or if they have made any emergency disposal and recycling arrangements that may affect the airport's choice of disposal and recycling facilities.
  - Hazardous waste mixed with other debris types will contaminate the entire load, which necessitates special disposal methods such as storage in a particular part of a landfill.
  - The airport will communicate waste expectations with stakeholders following a disaster, in order to avoid the commingling of the hazardous waste with other disaster-related debris.
  - Depending on the condition of the hazardous material, it may be stored for re-use, such as cans of paint; otherwise, the material and the waste will be disposed at a hazardous waste landfill.
  - Loose or leaking hazardous material and waste will be placed into secondary containers.
  - Trained professionals will be utilized to assess, segregate, pack, and label the hazardous material and waste.
  - Owners/operators of commercial and industrial facilities are responsible for managing any hazardous material and waste from their facilities.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- If releases are observed from these facilities the airport will attempt to contact the owners/operators, and if necessary, the airport will attempt to mitigate emergency releases.
- Storage tanks, both those above ground and underground, potentially could release hazardous substances and pose significant risk to health, safety, and the environment.
- Storage tanks should always be addressed with care. If, for example, gasoline pumps or vent pipes are present near a damaged building, or if an unknown tank or cylinder is discovered, debris collection activities should be stopped, the area sealed off, and local health and environmental officials, and relevant airport entities should be contacted for assistance.
- The airport will coordinate the procurement of storage tank capabilities where hazardous or specialized assets are needed for collection and storage.
- Refrigerants and other machine fluids may be regulated and can only be reclaimed by certified technicians or disposed of at a permitted facility.
- To avoid releases of refrigerants or oils, the collection of white goods must be accomplished carefully by manually placing the appliance on trucks or by using lifting equipment that will not damage the elements that contain the refrigerants or oils.

### **ACTIONS, ROLES AND RESPONSIBILITIES**

This section describes the debris management plan's specific actions, roles and responsibilities that workgroups will conduct through the phases of recovery. Not all workgroups will have specific actions that differ from the tasks located in the recovery plan annexes. Examples of specific actions, roles and responsibilities include:

#### **Recovery Functional Areas:**

- Provide SME support for TDMS safety preparedness actions such as readily available spill kits, climate exposure procedures, fire/HAZMAT mitigation, environmental/hazardous waste containment.
  - Coordinate external mitigation capabilities through the procurement process.
  - Continuously assess debris management activities that may affect the airport's sanitary and storm sewer system. This includes any debris within waterways.
  - Assess debris affecting public infrastructure including the effects of removing the debris prior to or post repairs.
  - Provide a project management approach to debris operations by implementing the initiating, executing, and closing phases of the project lifecycle.
  - Provide and maintain necessary vehicles for debris removal.
  - Establish debris removal priority areas.
  - Oversight and management of debris management contractors.
  - Develop the debris collection strategy.
  - Selecting and designing temporary debris management sites
  - Issuing and obtaining permits
  - Determining reduction and recycling methods
  - Distribute health and safety information to all personnel, including necessary training.
  - Monitor compliance with the minimum safety standards, including corrective actions to be taken if personnel do not comply with the minimum safety standards.
  - Provide assistance in equipment and resource staging.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Coordinate with Law Enforcement in the event human remains are found in debris.
- Monitor and direct force account and contract labor.
- Assist in the development of a demolition strategy for structures, if necessary.
- Report progress for distribution to the debris management planning staff.
- Drafting and reviewing any policy changes, contracts, and other documentation, including liability and special considerations concerns, in relation to debris removal activities.

#### **Debris Management Branch Director:**

- Create the Debris Management Strategy with support from the RCTF and EOC.
- Oversee all phases of debris operations.
- Delegate debris operation personnel and daily tasks to accomplish established goals and priorities.
- Establish debris removal priority areas.
- Establish recycling, reuse, and disposal priorities.
- Oversight and management of debris management contractors.
- The Debris Management Branch Director serves as the primary decision maker, assigning tasks to team members and managing overall communication and coordination both within the team and between the team and other internal and external entities.
- Provide and manage necessary resources for debris removal.
- Coordinate with the PIO/EOC to release debris related information, updates, and announcements.

#### **DEBRIS MANAGEMENT INFORMATION STRATEGY**

After a disaster, the whole airport community will want answers regarding recovery operations. The goal of the information strategy within the plan is to ensure that the community is given accurate and timely information for their use and own individual planning purposes. If information is not distributed quickly, rumors and misinformation spread and erode confidence in the airport's management of the recovery operations.

The Debris Management Branch will coordinate with the EOC/RCTF for information that needs to be disseminated through the PIO. The PIO will help develop a proactive public information management plan and coordinate with other public information agencies to keep stakeholders informed on all debris removal activities and schedules following an event and continually throughout the debris operations.

Emphasis will be placed on actions that airport stakeholders can perform to expedite the cleanup process such as segregating recyclable materials, placement of debris, and segregating hazardous waste. Provision should be made to compensate for disruption of normal means of mass communication caused by power outages or inaccessibility following an event.

The public information disseminated should include the parameters, rules, and guidelines of debris operations so tenants/stakeholders can begin their recovery activities. The published information should present the information in a clear, direct, and organized manner. The language used must be simple and easy to understand. The information will limit or eliminate jargon and acronyms as much as possible.

Common topics for public information can include:

- Extent of the debris/damage that is present.
  - Nature of the damage
  - Impacts to operations, critical facilities, and services
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Resources deployed to assess the damage and debris operations.
- Outside assistance needed or anticipated
- Cleanup instructions
- Methods of debris collection
- Status of cleanup
- Locations of drop-off or collection sites
- How to source-separate waste.
- Handling procedures
- Illegal dumping provisions
- Addressing complaints regarding debris piles or illegal dumping.

### **HEALTH AND SAFETY STRATEGY**

Health and safety of the airport employees and stakeholders, to include the travelling public, are of the highest priority following an event and the airport must implement a health and safety strategy in debris management operations. This enables airport staff and contractors to avoid accidents during debris management operations and to protect workers from exposure to hazardous materials. The health and safety strategy should establish minimum safety standards for airport staff and contractor personnel to follow.

To facilitate cooperation between the airport and contract employees, the health and safety strategy should specify how to disseminate safety information to all involved workers and how to monitor compliance with the minimum safety standards. The strategy also includes specific corrective actions to be taken if workers do not comply with the minimum safety standards.

The health and safety strategy establishes minimum safety standards for the agency and contract personnel to follow, which may include:

- The agencies and contractors will disseminate safety information and will monitor compliance with the minimum safety standards for all emergency workers.
- Information will be distributed to all stakeholders in the impacted area advising of the appropriate health guidelines to follow.
- A health and safety plan will provide workers with information on how to identify hazardous conditions and specific guidelines on the appropriate and proper use of PPE.
- The safety officer selected by the incident commander will have the responsibility to implement health and safety requirements. The safety officer will request specific assistance and technical advice as dictated by the situation.
- The airport in coordination with local authorities will assist in technical assistance regarding debris management and public health issues which will include but are not limited to:
  - Personal protective equipment
  - Proper handling of specific kinds of waste
  - General guidelines for safe work environments and equipment operations
  - The type of event, location, or other pertinent factors that may require special policies.
- All representatives are responsible for notifying persons under their authority.
- Contracts will contain a termination clause that non-compliance by local contractors with health and safety procedures will result in immediate termination of their contract.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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**Operational Safety:** Assessing the hazards of each disaster is an important part of maintaining health and safety for the debris management workers. At a minimum, the following areas of focus should be considered as part of debris management operations:

- **Debris Assessments** – Disasters that result in property damage typically generate large quantities of debris which must be collected and transported for disposal. The type of debris varies depending on the characteristics of the region (e.g., terrain, climate, dwelling and building types, population, etc.), age and use of structure and the debris-generating event (e.g., type, event strength, duration, etc.). In addition, the disaster debris produces a host of uneven surfaces, which must be negotiated.
- **Debris Removal** – Often the removal of disaster debris involves working with splintered, sharp edges of vegetative or construction material debris. Many disasters involve heavy rains or flooding. Consequently, disaster debris is damp and heavier than usual. As weights increase, so does the risk of injury.
- **Removal Equipment** – In most disasters, debris must be removed from the Right-of-Way (ROW) to provide access for emergency vehicles and subsequent recovery efforts. Debris collection and removal requires the use of heavy equipment and power tools to trim, separate and clear disaster debris.
- **Traffic Safety** – The ROW is located primarily on publicly-maintained roads or designated airport vehicle service roads (VSRs). As a result, much of the debris removal process could take place near traffic of varying levels of congestion. In addition, disasters often damage road signs, challenging safety on the road.
- **Wildlife Awareness** – Disasters are traumatic events for people as well as wildlife. Displaced animals (rodents), reptiles and insects pose a hazard to debris removal workers.
- **Debris Disposal** – After disaster debris is collected it is often transported to a TDMS or disposal site, a common area for injuries. Workers in this environment are more likely to be exposed to falling debris, heavy construction traffic, high noise levels, dust, and airborne particles from the reduction process. Upon entry to a disposal site (temporary or final), the debris monitors will assess the volume of disaster debris being transported utilizing a tower. Safety measures must be considered for monitors in the tower to ensure their security and safety, such as functional swing gates on scissor lifts. Reduction operations at a disposal site is a common area of injury and the proper safety measures must be implemented including correct personal protection equipment.
- **Climate** – Weather conditions throughout the year may vary; The effects of temperature and weather conditions on physical labor must be monitored and proper attire and work-rest intervals must be assessed. The use of administrative and engineering controls can reduce the threats to public health and safety in debris removal activities. Some common administrative and engineering controls used in the debris removal process are:

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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#### Collection Operations

- Conduct debris removal operations during daylight hours only (unless site is fully lit for nighttime operations).
- Limit collection work under overhead lines. Coordinate with the provider to clear fallen lines prior to working in that area.
- Inspect piles before using heavy equipment to remove them to ensure that there are no hazardous obstructions.
- Make sure that all collection vehicles have properly functioning lights, horns, and back-up alarms.
- Load collection vehicles properly (not overloaded or unbalanced).
- Cover and secure loads.
- When monitoring the collection process, stay alert in traffic and use safe driving techniques.
- Watch for hazardous waste, white goods, propane, CNG tanks, aircraft fueling apparatus and other hazardous materials.
- Debris with the potential of containing asbestos should be wetted before removal and handled accordingly during transport.

#### Debris Reducing Machinery

- Do not wear loose-fitting clothing.
- Follow the manufacturer's guidelines and safety instructions.
- Guard the feed and discharge ports.
- Do not open access doors while equipment is running.
- Always chock the trailer wheels to restrict rolling.
- Maintain safe distances.
- Never reach into operating equipment.
- Use lock out/tag out protocol when maintaining equipment.

#### TDMS/Disposal Operations

- Use jersey barriers and cones to properly mark traffic patterns.
- Use proper flagging techniques for directing traffic.
- Monitor towers must not exit into traffic and should have hand and guard rails to reduce trips and falls.
- Monitor towers must have properly constructed access stairways with proper treads and risers and proper ascent angle (4:1 height/width ratio).
- Monitor towers should be surrounded by jersey barriers which protect the tower and monitors from being struck by inbound or outbound collection vehicles.
- Monitor towers should be located upwind, if possible, from dust- and particulate generating activities.
- A water truck should spray the site as necessary to control airborne dust and debris.

**Personal Protective Equipment:** Personal Protective Equipment (PPE) should always be provided and worn to provide a safe working environment. PPE does not eliminate or even reduce hazards as administrative and engineering controls do. PPE works to reduce the risk of injury by creating a protective barrier between the individuals and workplace hazards.

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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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Proper use of PPE includes using PPE for its intended purpose. For example, using the wrong type of respirator might expose the worker to carcinogenic particulates. PPE that does not fit well will not provide maximum protection and will decrease the likelihood of the individual continuing to use the equipment. In addition, improper use may result in severe injury or death. The proper use of the equipment is outlined in detail in the manufacturer's instructions.

The appropriate PPE is determined by the debris operation being performed. Long pants and a reflective safety vest with a minimum of ANSI 2 as required by airport Rules and Regulations. The American National Standard for Personnel Protection should be referenced for current standards and best practices. The following PPE may be applicable in standard debris management activities:

- Head protection
- Foot protection
- Hand protection
- Vision/face protection
- Hearing protection
- Respiratory protection

## References and Authorities

This section provides the legal basis for recovery and activities. This section of the plan includes:

- Lists of laws, statutes, ordinances, executive orders, regulations, and formal agreements relevant to recovery
- Specification of the extent and limits of the emergency authorities granted to the senior official, including the conditions under which these authorities become effective and when they would be terminated.
- Pre-delegation of recovery authorities (i.e., enabling measures sufficient to ensure that specific emergency-related authorities can be exercised by the elected or appointed leadership or their designated successors)
- Provisions for COOP and COG (e.g., the succession of decision-making authority and operational control) to ensure that critical recovery functions can be performed.

The sections also identifies and describes the reference manuals to develop the plan and/or help prepare for and recover from disasters or emergencies.

### **Legal Authority**

- The Robert T. Stafford Disaster Relief and Emergency Assistance, Public Law 93-288, as amended
- Title 44, Code of Federal Regulations, parts 9, 10, 13, 59, 204, and 206
- 14 CFR Part 139, Certification of Airports (Part 139)

### **Guide References**

- America's Small Business Development Center (SBDC) Iowa. Business Assessment Checklist
  - Americans with Disabilities Act of 1990
  - City and County of Denver Emergency Operations Plan
  - Colorado Disaster Emergency Act (C.R.S. §§ 24-33.5-701 to 716)
  - Colorado State Emergency Operations Plan
  - Comprehensive Preparedness Guide (CPG) 101, Federal Emergency Management Agency
  - Continuity Resource Toolkit. FEMA
  - Debris Disposal Locations and Management Sites, Chatham County Emergency Management
  - Debris Management. Arkansas Department of Public Safety
  - Debris Management Plan Job Aid. Massachusetts Emergency Management Agency
  - Debris Management Support Annex. kdhe.ks.gov
  - Debris Monitor Field Supervisor jobs. Indeed
  - Demobilization. SEAPRO, [https://www.seapro.org/MS/SAMPLE\\_DEMOB\\_PLAN.pdf](https://www.seapro.org/MS/SAMPLE_DEMOB_PLAN.pdf)
  - Developing and Maintaining Emergency Operations Plans. FEMA
  - Disaster Mitigation Act of 2000, Public Law 110-61
  - Emergency/Disaster Debris Site Closure Guidance. NC DEQ
  - Emergency Staffing Plan Template (NACCHO)  
<https://www.naccho.org/uploads/full-width-images/Emergency-Staffing-Plan-FINAL-April-2023.pdf>
  - Family Assistance: [https://cdpsdocs.state.co.us/ovp/TRAC/community-response/Family\\_Assistance\\_Centers.pdf](https://cdpsdocs.state.co.us/ovp/TRAC/community-response/Family_Assistance_Centers.pdf)
  - Federal Family Assistance Framework for Aviation Disasters. NTSB
  - FEMA Damage Assessment Operations Manual (2016)
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- FEMA Preliminary Damage Assessment Guide June 2024 (Draft 1.1)
- FEMA State Disaster Management Unit 4: Damage Assessments  
<https://training.fema.gov/emiweb/downloads/is208sdmunit4.pdf>
- Florida Department of Environmental Protection Guidance for Establishment, Operation, and Closure of Disaster Debris Management Sites (DDMS) June 30, 2022
- Homeland Security Exercise and Evaluation Program (HSEEP), U.S. Department of Homeland Security, April 2013.
- Homeland Security Presidential Directive 5: Management of Domestic Incidents
- Homeland Security Presidential Directive 8: National Preparedness  
<https://www.fema.gov/media-library-data/1459972926996-a31eb90a2741e86699ef34ce2069663a/PDAManualFinal6.pdf>
- <https://www.masience.com/community-blog/steering-committee>
- IDHS FEMA Just In Time Training. 2022
- Larimer County Comprehensive Emergency Management Plan
- National Disaster Recovery Framework (NDRF), Federal Emergency Management Agency, June 2016
- National Disaster Recovery Framework (NDRF), Federal Emergency Management Agency, December 2024
- National Incident Management System (NIMS), U.S. Department of Homeland Security, October 2017.
- National Response Framework (NRF), U.S. Department of Homeland Security, October 2019.
- North Central Texas Council of Governments (NCTCOG). Emergency Preparedness
- Planning for Natural Disaster Debris, <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P1004PRS.TXT>.
- Recovery Federal Interagency Operational Plan, Second Edition
- Robert T. Stafford Disaster Relief and Emergency Assistance Act
- SEADOG: <https://seadogops.com/>
- State Disaster Management Unit 4: Damage Assessments. FEMA
- State of Texas Hazard Mitigation Plan. 2013
- Steering Committee: What It Is & How to Build an Effective One. M and A Science.  
<https://www.masience.com/community-blog/steering-committee>
- Take Care of Your Staff During and After a Disaster. Susan Hash
- Texas Division of Emergency Management, Emergency Operations Plan, 2019
- Waterway Debris Monitor Description. CDR Companies
- What is Continuity of Operations? Elements of a Viable Continuity, FEMA

## **Attachments: Sample Recovery Plan Checklists/Guides**

<b><u>ATTACHMENT 1: (SAMPLE) DAMAGE ASSESSMENT BRANCH DIRECTOR TASK LIST</u></b> .....	<b>67</b>
<b><u>ATTACHMENT 2: (SAMPLE) RAPID DAMAGE ASSESSMENT (RDA) GUIDE</u></b> .....	<b>68</b>
<b><u>ATTACHMENT 3: (SAMPLE) INITIAL DAMAGE ASSESSMENT (IDA)</u></b> .....	<b>76</b>
<b><u>ATTACHMENT 4: (SAMPLE) STAKEHOLDER ASSESSMENTS GUIDE</u></b> .....	<b>84</b>
<b><u>ATTACHMENT 5: (SAMPLE) RECOVERY SITUATIONAL REPORT</u></b> .....	<b>89</b>
<b><u>ATTACHMENT 6: (SAMPLE) DEBRIS MANAGEMENT BRANCH GUIDE</u></b> .....	<b>101</b>
<b><u>ATTACHMENT 7: (SAMPLE) ROLES AND RESPONSIBILITIES/ACTION ITEMS</u></b> .....	<b>109</b>

## Attachment 1: (SAMPLE) DAMAGE ASSESSMENT BRANCH DIRECTOR TASK LIST

### DAMAGE ASSESSMENT BRANCH DIRECTOR TASK LIST

#### POSITION OVERVIEW

The Damage Assessment Branch Director will oversee and coordinate all damage assessment activity, including team assignments and supporting agencies. The Branch Director will also coordinate with the applicable sections within the EOC, or RCTF when activated, for damage assessment support. This position will report to the Operations Section Chief within the EOC.

#### INITIAL RESPONSE/NOTIFICATIONS

- Establish Damage Assessment Branch in EOC
- Distribute relevant contact information
- Inform personnel of hazardous conditions
- Make initial disaster report to the EOC, RCTF, and local jurisdiction for further coordination efforts
- Damage assessment information dissemination including Initial Size-ups

#### COORDINATION EFFORTS

- Damage Assessment Field Coordinator(s) for supervision and assignments of Damage Assessment Teams
- Local public health officials
- Local jurisdiction on the use of non-profits organizations that may be utilized for damage assessment operations
- UAV led assessments and disaster imagery
- Local Jurisdiction for on-site surveys with city, state, and FEMA officials
- PIO for relevant damage assessment information needed for media reports and the public (damaged concessions, gates, extent of damage, etc.)

#### ONGOING ACTIONS

- Maintain Branch Log
- Maintain situational awareness of incident/recovery progression
- Participate in EOC/RCTF Briefings
- Provide pertinent information to the IC as appropriate
- Build and activate damage assessment teams
- Brief Damage Assessment Field Coordinator(s) of assignments and coordinate field damage assessment activities
- Prepare priority list for damage assessments
- Track weather forecast for each day's damage assessment field activities
- Ensure that unsafe buildings, roads, structures, etc. are visibly barricaded and marked as unsafe
- Provide required paperwork to local authority to support requests for state and federal assistance
- Collect, compile, and maintain damage assessment records, including costs of emergency work
- Provide technical assistance in evaluation of the airport's buildings and infrastructure damages
- Determine which inspection specialties are needed and ensure contacts are made
- Stress and enforce safety to all Damage Assessment Branch members
- Secure services of other professionals, as necessary, to assist in damage assessment and repair strategies

## Attachment 2: (Sample)Rapid Damage Assessment (RDA) Guide

### **(Sample)Rapid Damage Assessment (RDA) Guide**

Taking place within the transitional phase of recovery, approximately 0-48 hours after an incident, the Rapid Damage Assessment (RDA) provides the first description of the type and extent of the damages and associated impacts sustained by the airport. RDAs will be conducted by airport personnel, and any required airport stakeholders whose response is needed to complete the assessment. The RDA provides decision makers with a wider scope of more detailed information than the Initial Size-Up. This phase should begin to assess the status of lifelines (transportation, communications, operational capabilities, utilities - gas, electricity, water, etc.) status of critical infrastructure (radio and radar facilities, Air Operations Area and equipment) and magnitude of debris. The following guides may be used if digital formats are unavailable. Additional information may be required to fully depict the incident impacts, as well as the resources needed to continue the recovery process.

#### **ESTABLISHING PRIORITIES**

Identification of infrastructure types and services should be included within the different phases of damage assessment operations. Priority Levels provide information that ensures areas with the highest need or have the highest impact to operational capability are prioritized and appropriately resourced.

- **Priority 1** - facilities are critical infrastructure and pose an immediate threat to public life or health or have been deemed necessary for the continuance of airport operations. Priority 1 facilities are typically initially assessed in response to an emergency, utilizing Rapid Damage Assessments and Initial Size Ups conducted by responding personnel, but will need to be thoroughly assessed in IDA operations as well.
- **Priority 2** - facilities relates to support services, high occupancy structures/locations, utilities, and other critical services. These facilities are assessed immediately following the Rapid Damage Assessment of Priority 1 infrastructure. If geographical positioning allows, Priority 2 facilities could be assessed when at the same time as the Priority 1 infrastructure. Locations with a high density of airport users are Priority 2 facilities due to access and functional needs possibilities of those structures.
- **Priority 3** - facilities are to be assessed directly following the assessment of Priority 1 and 2 facilities. Infrastructure not essential or critical such as public and private buildings, ramp areas not directly affecting operational continuance, or areas located far enough away from active aircraft operations that response and recovery efforts can be delayed for prioritization purposes will be designated as priority 3. Like priority 2 infrastructures, if geographical positioning allows, Priority 3 facilities could be assessed at the same time as the Priority 1 or 2 infrastructure. It is imperative that the assessment of a Priority 3 facility not cause a delay in reporting essential life safety information and therefore may cause a delay in assessment of priority 3 infrastructures.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

<b>(Sample) Priority Infrastructure and Airport Lifelines</b>												
O=Operational N=Nonoperational L=Limited	O	N	L	Priority	O=Operational N=Nonoperational L=Limited	O	N	L	Priority			
<b>Emergency/Support Services</b>					<b>Utilities</b>							
Fire – Structure and EMS					Electric							
Fire - ARFF					Gas							
EMS					Water							
Law Enforcement					Sewage							
Communication Center/Dispatch					CNG							
Emergency Management/EOC					Fuel Farm/Fueling							
Airport Operations					Generators							
TSA					Power Plants/Boilers							
CBP					Lift Stations							
Contract Security					HVAC							
<b>Radios/Systems</b>					<b>Facilities</b>							
Access Control					Airport Office Buildings							
Passenger Screening					Concourse							
Baggage Handling					Concourse							
Automated People Mover					Concourse							
FIDS/BIDS					Main Terminal							
Antenna Farm – UHF/VHF					Fleet Maintenance							
Phone/Internet/WIFI					Security Gates							
ENS					Rail Service							
FAA ATCT					Hotel							
FAA TRACON					Plaza Areas							
Simplex					Deice Facilities							
Conveyances/ADA Access					FIS							
Emergency Fuel Shut Off (EFSO)					Jet Bridges							
<b>Essential Operations</b>					Holding Lots							
Airline/Cargo/GA					Parking Infrastructure							
Bussing					Badging Office							
FAA Part 139 Standards					<b>Public Facilities</b>							
Maintenance Communications					Art and Cultural Sites							
TSAR 1542 Compliance					Nursing and Pet Relief							
Ramp Tower					Concessions							
Lighting Vaults					Break Rooms							
<b>Additional Infrastructure/Lifelines</b>					Restrooms							
Data Centers					USO/Lounges							
IT Facilities					AFN Services							
Server Infrastructure												
Data Storage Infrastructure												

## (Sample) RDA TEAM INSPECTION GUIDE

Team Leader

\_\_\_\_\_

Contact Information

\_\_\_\_\_

For emergencies or to report suspicious activity contact:

**Airport Emergency Dispatch:** \_\_\_\_\_

or the Emergency Operations Center: \_\_\_\_\_

**Goal:**

The goal of a Rapid Damage Assessment is NOT to estimate dollar value of damage. The RDA is designed to:

- Confirm reported conditions
- Assign Site reference number for continued tracking
- Estimate the overall magnitude of the damage
- Identify personnel and operations at risk because of the emergency
- Respond to the injured airport users and emergency response personnel
- Identify access and egress routes from the affected areas
- Identify existing and potential threats
- Identify locations that are unsafe to enter

During RDAs, the airport EOC will rely on information provided by emergency responders, damage assessment teams, reports from the media and social media, 911 calls, and information gathered from airport personnel. The information gathered from the RDA will determine the need for further assessments including the initial damage assessment for possible financial reimbursement.

\*\*\*Report the progress and completion to the Team Leader to pass along to the EOC\*\*\*

RDA Team Name (if applicable)		Assessment Team Safety Measures	Supplied	Worn
RDA Team Member Name		Safety Equipment	Yes or No	Yes or No
Contact Information		Personal Protective Equipment (PPE)	Yes or No	Yes or No
Supervisor Contact Information	Name	Contact Information		
Date		Areas to be Assessed	Actual Areas Assessed	Resources/Equipment Allocated
Briefing Time				
Team Arrival				
Time Start				
Time End				
Return Time				EOC Notified Time

**Additional Notes:**

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide







**(Sample) RDA TEAM MEMBER INSPECTION GUIDE**

Location		Site/Ref No.		Assessment Team Safety Measures	Supplied	Worn
Facility Type		Priority Lvl.		Safety Equipment	Yes or No	Yes or No
RDA Team Member Name				Personal Protective Equipment (PPE)	Yes or No	Yes or No
Contact Information				Emergency Contact Name/Phone		
Supervisor Contact Information	Name			Contact Information		
Interviewee Contact	Name			Contact Information		
Date	<p>The goal of a Rapid Damage Assessment is NOT to estimate dollar value of damage. The RDA is designed to:</p> <ul style="list-style-type: none"> <li>• Confirm reported conditions and provide description of damages</li> <li>• Estimate the overall magnitude of the damage</li> <li>• Identify personnel and operations at risk because of the emergency</li> <li>• Respond to the injured airport users and emergency response personnel</li> <li>• Identify access and egress routes from the affected areas</li> <li>• Identify existing and potential threats</li> <li>• Identify locations that are unsafe to enter</li> </ul>					
Briefing Time						
Location Arrival						
Time Start						
Time End						
Return Time						
Inspection Method (Circle) Aircraft/Walkthrough/Interview						

Assessment (Check if Applicable)													
FIRES		HAZARDS		STRUCTURE		PEOPLE		ROADS/INGRESS		UTILITES		DEBRIS	
Burning		Gas Leak		Damaged		Injured		Free Egress		Electric/HVAC		Identified	
Out		Water Leak		Collapsed		Trapped		No Access		Gas		Removed	
Smoke		Electric		Unsafe		Dead		Unsecured		Sewage		Organized	
Electrical		Chemical		Unknown		Bystanders		No ADA Access		Water		Impassable	

**OBSERVATIONS**

\*\*\*Provide more detail on identified Items, ex. debris locations, type, quantity\*\*\*

<b>ACCESS LEVEL</b>		✓
SAFE		
RESTRICTED		
NO ENTRY		

Airport Security Status												
Impact to Operations												
Damage Level: (Circle)	Least	1	2	3	4	5	6	7	8	9	10	Most

Determined Condition			
<input type="checkbox"/> Affected	<input type="checkbox"/> Minor	<input type="checkbox"/> Major	<input type="checkbox"/> Destroyed
<input type="checkbox"/> Inaccessible			

\*\*\*SEE SUPPLEMENTAL DOCUMENTS FOR ADDITIONAL GUIDANCE\*\*\*

## CONDITIONS PRESENT IN DAMAGE ASSESSMENT

### DESTROYED

The infrastructure is a total loss, or damaged to such an extent that repair is not feasible.

- Complete failure of two or more major structural components (collapse of basement walls, foundation, walls, or roof)
- Only foundation remains.
- Will require immediate demolition or removal due to disaster-related damage or confirmed imminent danger.

### MAJOR

Substantial failure to structural elements (e.g., walls, floors, foundation) or damage that will take more than 30 days to repair.

- Exterior wall damaged
- One room destroyed
- Floodwater standing more than 24 hours
- Sewer backups to cause sufficient contamination
- Water has come into contact with the floor system including bottom board insulation, ductwork, and subflooring.
- When the infrastructure has sustained significant structural damage and requires extensive repairs
- Water line above 18 inches in an occupied or required room. A water line above the electrical outlets
- Failure or partial failure to structural elements of the roof over required rooms to include rafters, ceiling joists, ridge boards, etc.
- Failure or partial failure to structural elements of the walls to include framing, sheathing, etc.
- Failure or partial failure to foundation to include crumbling, bulging, collapsing, horizontal cracks, of more than two inches, and shifting of the foundation of more than six inches

### MINOR

Encompasses a wide range of damage that does not affect the structural integrity of the infrastructure. Structure is damaged and not operational but may be made operational in a short period of time with repairs.

- Smoke damage
- Prolonged utility and/or access interruption
- Debris or standing flood water
- Waterline up to 18 inches in an occupied or required room or six inches and above in an unoccupied basement
- Damage to mechanical components (furnace, boiler, water heater, HVAC, etc.)
- Nonstructural Damage Roof: shingles, roof covering, fascia board, soffit, flashing, and skylight
- Multiple small vertical cracks in foundation

### AFFECTED

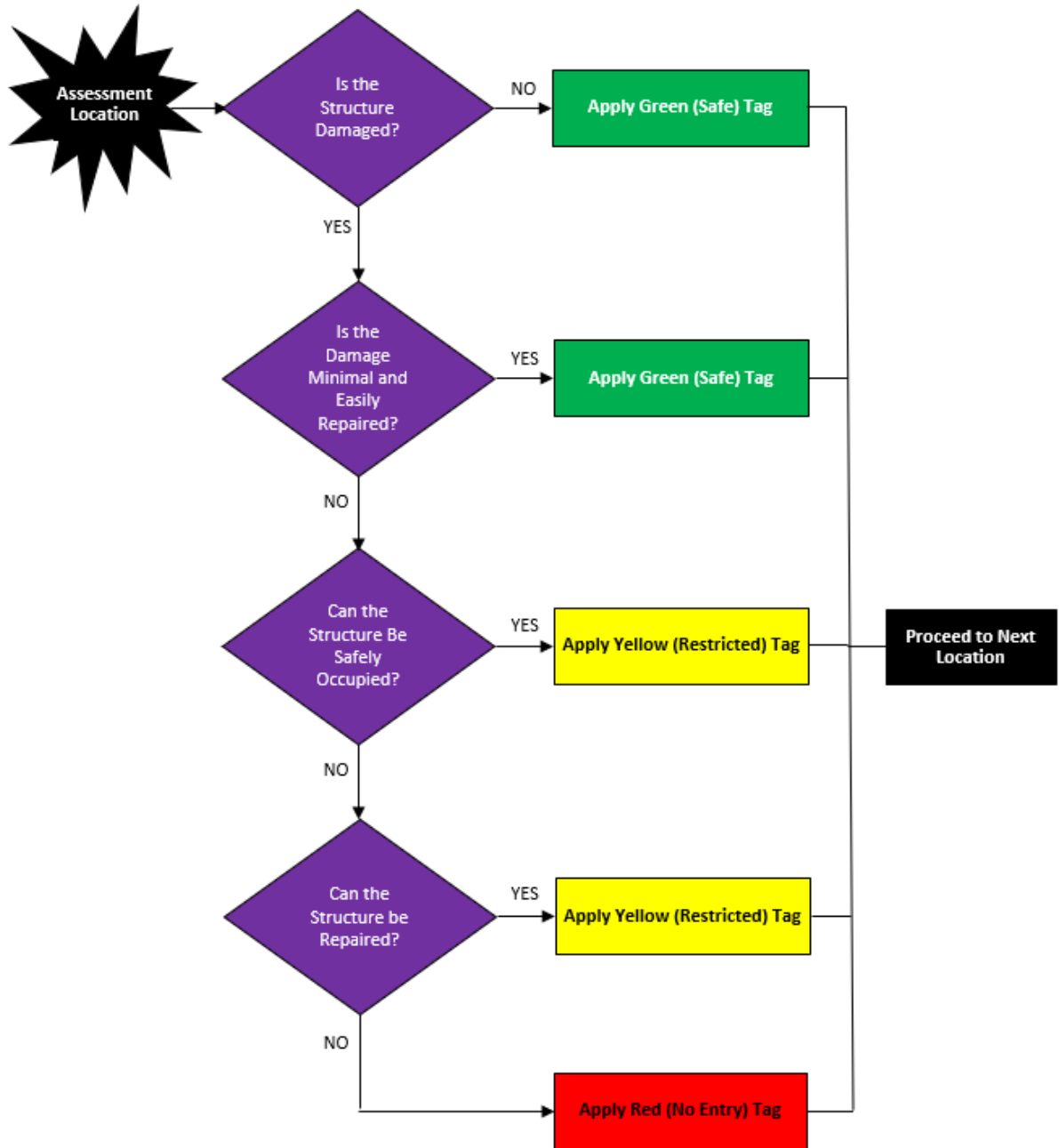
Infrastructure with minimal damage to the exterior and/or contents

- Partial missing shingles or siding
- Cosmetic damage: paint discoloration or loose siding
- Broken screens, gutter damage, and debris
- Damage to attached structure
- Any waterline in the basement when essential operating space or mechanical components are not damaged or submerged

### INACCESSIBLE:

Due to disaster-related loss of access: Bridge out, road flooded, or blocked by landslide, mudslide, severe erosion, washed out, etc.

# INFRASTRUCTURE TAG GUIDE



(Sample) INFRASTRUCTURE TAG GUIDE

**INSPECTION TAG**

**DO NOT REMOVE** (vertical text on left)

**DO NOT REMOVE** (vertical text on right)

This structure has been inspected and no apparent structural hazard has been found in the environment that represents a threat to the occupants.

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_  
Infrastructure Name/Location \_\_\_\_\_  
Inspector ID/Agency \_\_\_\_\_  
Additional Remarks \_\_\_\_\_

Caution: New events occurring after the inspection may increase or cause new damages that may change the result of the inspection. Report any unsafe conditions Airport Emergency Dispatch

**SAFE**

**INSPECTION TAG**

**DO NOT REMOVE** (vertical text on left)

**DO NOT REMOVE** (vertical text on right)

This structure has been inspected and some structural damage has been found in the environment that represents a threat to the occupants. This structure has been deemed safe to occupy with restricted access.

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_  
Infrastructure Name/Location \_\_\_\_\_  
Inspector ID/Agency \_\_\_\_\_  
Additional Remarks/Permitted Access \_\_\_\_\_

Caution: New events occurring after the inspection may increase or cause new damages that may change the result of the inspection. Report any unsafe conditions Airport Emergency Dispatch

**RESTRICTED ACCESS**

**(Sample) INFRASTRUCTURE TAG GUIDE**

**INSPECTION TAG**

This structure has been seriously damaged and is unsafe. Do not enter.  
Entry may result in death or injury.

Inspection Date: \_\_\_\_\_

Inspection Time: \_\_\_\_\_

Infrastructure Name/Location \_\_\_\_\_

Inspector ID/Agency \_\_\_\_\_

Additional Remarks/Permitted Access \_\_\_\_\_

Caution: New events occurring after the inspection may increase or cause new damages that may change the result of the inspection. Report any unsafe conditions Airport Emergency Dispatch

**NO ENTRY**

**DO NOT REMOVE**

**DO NOT REMOVE**

## Attachment 3: (SAMPLE) INITIAL DAMAGE ASSESSMENT (IDA)

### (SAMPLE) INITIAL DAMAGE ASSESSMENT (IDA) GUIDE

- Performed 48 Hours – 2 Weeks following an event.
- Provides EOC with info on which areas need to be prioritized based on criticality and resourced appropriately.
- The Damage Assessment Branch will provide direction to Damage Assessment Teams for airport-wide damage assessment operations.
- Using RDAs the airport should coordinate as early as possible with the local jurisdiction when an IDA is expected to ensure correct preliminary information is gathered.
- The airport and local jurisdiction will decide if an IDA is necessary in the event of, or possibility of, a federally declared disaster.
- Local jurisdiction will coordinate with the required outside agencies who will support the IDA operations in conjunction with the airport Damage Assessment Coordinator(s), as needed.
- General cost estimation is what should drive Initial Damage Assessments. A description of damages in addition to all work needed to be performed should be identified.
- EOC may consider the activation of established mutual agreements that are used for damage assessment operations.
- The local jurisdiction will indicate if the emergency severity requires a request by the Governor for Federal disaster assistance.
- Damage Assessment Teams are to be multiagency and can include individuals from support agencies and other identified personnel approved by the Damage Assessment Coordinators.
- Teams should follow an established priority list when conducting damage assessment operations. Teams should be deployed for Initial Damage Assessment responsibilities by the Damage Assessment Coordinator(s) and should not self-deploy.
- This document contains sample guides/checklists that may be used if digital formats are unavailable. Additional information may be required to fully depict the incident impacts, as well as the resources needed to continue the recovery process.

#### ESTABLISHING IDA PRIORITIES

Identification of infrastructure types and services should be included within the different phases of damage assessment operations. Priority Levels provide the distinction between “critical” and “essential” infrastructure and allows information that ensures areas with the highest need or have the highest impact to operational capability are prioritized and appropriately resourced.

- **Priority 1** - facilities are critical infrastructure and pose an immediate threat to public life or health or have been deemed necessary for the continuance of airport operations. Priority 1 facilities are typically initially assessed in response to an emergency, utilizing Rapid Damage Assessments and Initial Size Ups conducted by responding personnel, but will need to be thoroughly assessed in IDA operations as well.
- **Priority 2** - facilities relates to support services, high occupancy structures/locations, utilities, and other critical services. These facilities are assessed immediately following the Rapid Damage Assessment of Priority 1 infrastructure. If geographical positioning allows, Priority 2 facilities could be assessed when at the same time as the Priority 1 infrastructure. Locations with a high density of airport users are Priority 2 facilities due to access and functional needs possibilities of those structures.
- **Priority 3** - facilities are to be assessed directly following the assessment of Priority 1 and 2 facilities. Infrastructure not essential or critical such as public and private buildings, ramp areas not directly affecting operational continuance, or areas located far enough away from active aircraft operations that response and recovery efforts can be delayed for prioritization purposes will be designated as priority 3. Like priority 2 infrastructures, if geographical positioning allows, Priority 3 facilities could be assessed at the same time as the Priority 1 or 2 infrastructure. It is imperative that the assessment of a Priority 3 facility not cause a delay in reporting essential life safety information and therefore may cause a delay in assessment of priority 3 infrastructures.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

(Sample) Priority Infrastructure and Airport Lifelines									
O=Operational N=Nonoperational L=Limited	O	N	L	Priority	O=Operational N=Nonoperational L=Limited	O	N	L	Priority
<b>Emergency/Support Services</b>					<b>Utilities</b>				
Fire – Structure and EMS					Electric				
Fire - ARFF					Gas				
EMS					Water				
Law Enforcement					Sewage				
Communication Center/Dispatch					CNG				
Emergency Management/EOC					Fuel Farm/Fueling				
Airport Operations					Generators				
TSA					Power Plants/Boilers				
CBP					Lift Stations				
Contract Security					HVAC				
<b>Radios/Systems</b>					<b>Facilities</b>				
Access Control					Airport Office Buildings				
Passenger Screening					Concourse				
Baggage Handling					Concourse				
Automated People Mover					Concourse				
FIDS/BIDS					Main Terminal				
Antenna Farm – UHF/VHF					Fleet Maintenance				
Phone/Internet/WIFI					Security Gates				
ENS					Rail Service				
FAA ATCT					Hotel				
FAA TRACON					Plaza Areas				
Fire Sprinkler/Fire Mitigation					Deice Facilities				
Conveyances/ADA Access					FIS				
Emergency Fuel Shut Off (EFSO)					Jet Bridges				
<b>Essential Operations</b>					<b>Public Services</b>				
Airline/Cargo/GA					Holding Lots				
Bussing (Employee/Passenger)					Parking Infrastructure				
FAA Part 139 Standards					Badging Office				
Maintenance Communications					<b>Public Services</b>				
TSAR 1542 Compliance					Art and Cultural Sites				
Ramp Tower					Nursing and Pet Relief				
Lighting Vaults					Restrooms				
<b>Additional Infrastructure</b>					<b>Additional Lifelines</b>				
Data Centers					Concessions				
IT Facilities					Break Rooms				
Server Infrastructure					USO/Lounges				
Data Storage Infrastructure					AFN Services				
Roadways – Airside/Landside									

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(SAMPLE) IDA – PUBLIC INFRASTRUCTURE**

<b>Incident Name</b>		<b>Incident Type</b>		<input type="checkbox"/> Initial <input type="checkbox"/> Supplemental		
<b>Jurisdiction Coordination (Circle)</b>			<b>Assessment Team Safety Measures</b>		<b>Supplied</b>	<b>Worn</b>
Airport CITY/EM STATE FEDERAL OTHER: _____			Safety Equipment		Yes or No	Yes or No
<b>Assessment Team Name/Contact Information</b>			<b>Personal Protective Equipment (PPE)</b>		Yes or No	Yes or No
			<b>Supervisor Contact Name/Phone</b>			
<b>Assessment Team Members</b>		<p align="center"><b>If onsite Assessment Needed:</b></p> <p><b>Proceed with Caution:</b></p> <ul style="list-style-type: none"> <li>• Survey damaged building.</li> <li>• Include the approximate percentage of damage for each category in building.</li> <li>• Take photographs or video of the damage.</li> <li>• Secure the area from future damage.</li> <li>• Reference Form Entry Description for Estimating Costs.</li> </ul>			<b>Date</b>	
<b>Name</b>	<b>Organization</b>				<b>Briefing</b>	
					<b>Arrival</b>	
					<b>Time Start</b>	
					<b>Time End</b>	
					<b>Return</b>	
CATEGORY ENTRY INFORMATION				ESTIMATING DAMAGES INFORMATION		
<p><b>Category A - Debris Clearance</b></p> <p>This category includes all storm induced debris on non-federal public waterways and other public and private property when removal is legally undertaken by local government forces. It can also cover the cost of demolition of public structures if those structures were made unsafe by the emergency.</p> <p><b>Category B - Emergency Protective Measures</b></p> <p>This category addresses the provision of appropriate emergency measures designed to protect life, safety, property, and health (i.e., barricades, sandbags, and safety personnel).</p> <p><b>Category C - Road System</b></p> <p>This category addresses damages to non-federal roads, bridges, streets, culverts, and traffic control devices.</p> <p><b>Category D - Water Control Facilities</b></p> <p>Eligible damages under this category include costs to repair or replace dikes, dams, drainage channels, irrigation works and levees.</p> <p><b>Category E - Building and Equipment</b></p> <p>Eligible damages under this category include costs to repair buildings equipment, supplies/inventories that were damaged and transportation systems such as public transits system.</p> <p><b>Category F - Public Utility Systems</b></p> <p>Under this category, assistance is available for damaged water systems, landfills, sanitary sewage, storm drainage systems and electrical facilities.</p> <p><b>Category G - Other</b></p> <p>The "other" category includes parks and recreational facilities, or any other public facility damages that do not reasonably fit in one of the other six categories.</p>				<p><b>Estimating Dollar Amount of Damage:</b></p> <ul style="list-style-type: none"> <li>• Estimated Dollar Damage =                             <ul style="list-style-type: none"> <li>○ [Damage Level x .1] x [Pre-Disaster Market Value x 1.1]</li> </ul> </li> <li>• Convert damage level to a percent of damage by multiplying by .1</li> <li>• Multiply the pre-disaster market value of the structure by 1.1</li> <li>• Multiply the percent of damage by 110% of pre-disaster market value</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Example:</b></p> <ul style="list-style-type: none"> <li>• Pre-Disaster Market Value = \$100,000</li> <li>• Damage Level 7</li> <li>• Damage Level 7 x .1 = .7</li> <li>• Pre- Disaster Market Value of \$100,000 x 1.1 = \$110,000</li> <li>• .7 x \$110,000 = \$77,000 estimated dollar damage</li> </ul> </div> <p><b>Estimating damage to contents</b></p> <ul style="list-style-type: none"> <li>• Estimating damage to contents will assist the airport by increasing total damage cost estimates. Contents will include aircraft and airline support equipment, airline operations, concessionaire and other tenant supplies, furniture, appliances, and restaurant related contents. An estimation of probable damage to contents is obtained from the occupants of the area, if possible.</li> </ul>		

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(Sample) IDA – SITE INSPECTION GUIDE**

Location		Site/Ref No.		Assessment Team Safety Measures	Supplied	Worn
Facility Type		Priority #		Safety Equipment	Yes or No	Yes or No
Inspector Name				Personal Protective Equipment (PPE)	Yes or No	Yes or No
Contact Information				Emergency Contact Name/Phone		
Supervisor Contact Information	Name			Contact Information		
Location Contact or Owner Info	Name			Contact Information		
Date	<p>The goal of an Initial Damage Assessment is to estimate dollar value and magnitude of damage. The IDA is designed to:</p> <ul style="list-style-type: none"> <li>• Confirm reported conditions</li> <li>• Determine if impacts are severe enough to request assistance from state and federal government</li> <li>• Provide a description of damages, the extent, etc.</li> <li>• Depict the impact that the damage is having airport's operation, e.g., road closures, airline operation, hindrance to emergency services, etc.</li> <li>• Estimate the approximate percentage of work that has been completed to repair or restore the site</li> <li>• Estimate the cost incurred</li> </ul>					
Briefing Time						
Location Arrival						
Time Start						
Time End						
Return Time						
Inspection Method (Circle)						
Aircraft/Walkthrough/Interview						

**ASSESSMENT**

Key For Damage Category

A - Debris Clearance Category		C - Road System			E - Building and Equipment		G - Other
B - Emergency Protective Measures		D - Water Control Facilities			F - Public Utility Systems		
Category	% Work Complete	%	Access Controlled	Yes or No	Current Operations	Operational/Limited/Not Operational	
Water Depth	in	ADA Accessibility	Yes or No	Secured	Yes or No	Occupiable/Operable During Repairs	Yes or No

Impact to Operations

**Description of Damages/Impacts**

\*\*\*Include information on Contingency/Limited Operations and accessibility\*\*\*

ACCESS LEVEL	✓
SAFE	█
RESTRICTED	█
NO ENTRY	█

Additional Repairs Needed

Damage Level (Circle)	Least	1	2	3	4	5	6	7	8	9	10	Most	Estimated Damage (\$)	\$
-----------------------	-------	---	---	---	---	---	---	---	---	---	----	------	-----------------------	----

**Determined Condition**

<input type="checkbox"/> <b>Affected</b>	<input type="checkbox"/> <b>Minor</b>	<input type="checkbox"/> <b>Major</b>	<input type="checkbox"/> <b>Destroyed</b>
<input type="checkbox"/> <b>Inaccessible</b>			

\*\*\*Occupancy related issues related to environmental factors (non-structural) should be referred to Local public health and environment officials. If numerous facilities are anticipated to have environmentally related issues, the damage assessment team should include an inspector from the local jurisdiction\*\*\*

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(SAMPLE) IDA – BUSINESS LOSSES SUMMARY**

<b>Incident Name</b>		<b>Incident Type</b>		<input type="checkbox"/> Initial <input type="checkbox"/> Supplemental			
<b>If Onsite Assessments Needed:</b>							
<b>Jurisdiction Coordination (Circle)</b>			<b>Assessment Team Safety Measures</b>		<b>Supplied</b>	<b>Worn</b>	
<b>Airport</b>	<b>CITY</b>	<b>STATE</b>	<b>FEDERAL</b>	<b>OTHER:</b> _____	<b>Safety Equipment</b>	<b>Yes or No</b>	<b>Yes or No</b>
<b>Assessment Team Contact Information</b>				<b>Personal Protective Equipment (PPE)</b>		<b>Yes or No</b>	<b>Yes or No</b>
				<b>Supervisor Contact Name/Phone</b>			
<b>Date</b>		<b>Proceed with Caution:</b> <ul style="list-style-type: none"> <li>• Coordinate with Business owner, or appointee for losses summary.</li> <li>• Survey damaged building.</li> <li>• Use Initial Damage Assessment Infrastructure Inspection Guide for reference or additional stakeholder assessments.</li> <li>• Take photographs or video of the damage, if needed.</li> <li>• Reference Assessment Entry information for documentation.</li> </ul>				<b>Assessment Team Members</b>	
<b>Briefing Time</b>						<b>Name</b>	<b>Organization</b>
<b>Location Arrival</b>							
<b>Time Start</b>							
<b>Time End</b>							
<b>Return Time</b>							

**ASSESSMENT ENTRY INFORMATION**

**Damage Assessment Information - Business Losses**

- **Name of Business/Site Location** – Include Site Reference number. Should be documented for EOC use.
- **Tenant/Owner (circle choice) & Type of Business.** - Enter the kinds of products manufactured, stored, shipped, treated, sold, etc., by the affected entity. If services are provided, indicate the type of service, e.g., catering, airline, restaurant, etc.
- **Estimated Days out of Operation** - Estimate the number of days the affected business or industry will be inoperable as a result of the incident.
- **Number (Employees)** - Obtain from the owner or other officials the number of people employed by the business or industry. If not readily available, give best estimate.
- **Covered by U.I. (Employees)** - Obtain from the employer or appropriate officials the number of employees covered by Unemployment Insurance. If the information is not readily available, give best estimate.
- **Replacement Cost or Fair Market Value** - Obtain from the employer or other appropriate officials or estimate from tax records the total replacement cost or fair market value of the damaged business' land, structure, and contents.
- **Estimated Dollar Loss** - Obtain from the owner or other appropriate officials the estimated total dollar loss incurred as a result of the incident. If the information is not readily available, give a best estimate. Include losses to inventory, equipment, furnishings, etc.
- **Dollar Amount Insurance Coverage** - Estimated total dollar amount of insurance coverage. If unknown enter "unk".
- **% Unins. Loss Bus. Value** - The "% unins. loss bus. value" is an abbreviation for the percent uninsured loss to the value of the business. This value consists of the relationship between the businesses' total losses, its insurance coverage and the replacement cost or total fair market value of land, structure, and contents. The percentage is calculated by subtracting coverage from estimated loss and dividing that number by the dollar estimate listed under replacement. The entire result is then multiplied by 100 percent. If the insurance information required under, "DOLLAR AMOUNT OF INSURANCE COVERAGE", is not known, then do not attempt to calculate the percentage to be entered under % uninsured loss. Simply leave this column blank.
- **If % uninsured is <40% Min**
- **If % uninsured is: 40% - 75% Maj**
- **If % uninsured is: >75% Dest**

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**INITIAL DAMAGE ASSESSMENT (IDA) BUSINESS LOSSES SUMMARY**

SITE REF #	BUSINESS NAME/LOCATION	OWNER/TYPE	DAYS	EMPLOYEES		REPLACEMENT COST OR FAIR MARKET VALUE	INSURANCE COVERAGE \$	% UNINSURED BUSINESS LOSS TO BUSINESS VALUE	<40% MIN	40-75% MAJ	>75% DEST.	
				NUMBER	U.I. COVERAGE							
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
		Tenant or Owner (Circle)				Land \$ Structure \$ Contents \$ Other \$						
<b>Totals</b>												

## INITIAL DAMAGE ASSESSMENT (IDA) SUMMARY

This form is intended to provide the airport with a standard method of reporting initial and supplemental damage estimates to the local jurisdiction. This information will be used to assess the situation throughout the affected area. It will also be combined with other reported information and used to help decide future actions.

This form is intended to be cumulative. If you submit additional reports, all the columns **MUST** show current totals. For example, if the first form you submitted showed 16 structures damaged and you identify four more damaged structures, the next form you submit **MUST** show 20 damaged structures.

### PRELIMINARY DAMAGE ASSESSMENT COORDINATION

Damage assessments for public infrastructure are cost-driven and are often based on the scope of work to be performed. Because of this, FEMA uses a standard rate list that determines what the allowable cost is for equipment. The airport will coordinate with the local jurisdiction to ensure documentation and public assistance procedures are followed per FEMA's guidance on PDAs.

### FORM ENTRY DESCRIPTIONS

- **Disaster Location** - Please include the name of the area affected, including location and date of report.
- **Disaster** - List the type, time, and date of incident.
- **Report by** - List name of person submitting report, his/her title, home and work phone numbers. This person will be the local jurisdiction's point of contact for additional information.
- **Affected Individuals** - List affected individuals based on the category the individual fits in. Please assign individuals to only one of the six categories. For example, do not assign someone to the "injuries" category if they are already assigned to "hospitalized."
- **Property Damage:**
  - **Business:** List the number of business properties damaged as a result of the disaster in the categories provided. Provide a total dollar amount in estimated losses to businesses.
  - **Public Facilities:** List the estimate in dollars, the number of sites, and a brief description of damages in the six categories under Type of Work or Facility. Provide a total dollar amount in estimated losses to public facilities.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

Initial  Supplemental

**INITIAL DAMAGE ASSESSMENT SUMMARY - FORM**

<b>Location/Affected</b>				<b>Reported By</b>			
<b>Jurisdiction</b>				<b>Organization</b>			
<b>Address</b>				<b>Title</b>			
<b>Incident Type</b>				<b>Phone</b>			
<b>Incident Date</b>		<b>Incident Time</b>		<b>Email</b>			
<b>Insurance Information</b>		<b>Policy Number</b>		<b>Policy Contact</b>	<b>AIRPORT</b>		<b>Insurer</b>

**Brief Incident Description**

**Recovery Efforts and Operational Status**

**Affected Individuals**

(Assign affected individuals to one category)

<b>Fatalities</b>	<b>Injuries</b>	<b>Hospitalized</b>	<b>Missing</b>	<b>Evacuated</b>	<b>Shelter</b>

**Property Damages**

**Businesses**

<b>Minor</b>	<b>Major</b>	<b>Destroyed</b>	<b>Insured</b>

Estimated Loss to Business (in Dollars) \$

**Public Facilities**

<b>Work or Facility Categories</b>	<b>Estimate (In Dollars)</b>	<b>Sites</b>	<b>Brief Description of Damages</b>
<b>A. Debris Removal</b>	\$		
<b>B. Protective Measures</b>	\$		
<b>C. Roads and Bridges</b>	\$		
<b>D. Water Control</b>	\$		
<b>E. Buildings Equipment</b>	\$		
<b>F. Utilities</b>	\$		
<b>Total Estimate</b>	\$		

## **Attachment 4: (Sample) STAKEHOLDER ASSESSMENTS GUIDE**

### **STAKEHOLDER ASSESSMENTS GUIDE**

Assessments are crucial activities needed during all phases of an emergency. Damage assessments, a subset of the overall disaster assessment should be an ongoing and repetitive process; assessments activities such as these provide immediate data to emergency decision-makers as well as those involved in recovery planning. This following guide focuses on damage assessments for airlines/tenants/concessionaires and other stakeholders at the airport. To provide this urgent data to the necessary parties in the aftermath of an emergency, damage assessment activities should begin as soon as possible once scene safety has been established.

This guide was created to address small and large-scale emergency events which result in extensive damage and require a coordinated damage assessment effort utilizing a multitude of non-governmental and airport entities. An important caveat to any recovery planning effort is that a large-scale emergency will likely deplete the number of qualified employees to perform damage assessment activities in a timely manner. When available and safe to do so, the airport may request the tenant/site manager, architect, or qualified representative to assist with that assessment process. Disaster Recovery places an emphasis on the prioritization of critical infrastructure when conducting damage assessments and safety inspections.

Following an event, the following will be considered to be true unless otherwise noted:

- All damage assessment activities will take place concurrently and continuously with, and in support of, other response and recovery activities.
- Damage to telecommunications facilities may occur, slowing dissemination of information and reporting of persons needing help.
- Public safety and public communications (including cellular service, internet, and land line telephone access) may be limited or not available. It is expected that emergency radio communications, including responder emergency communications, the federal emergency alert system radio service and ham radio communications, may be limited.
- Damage to fixed facilities that generate or use hazardous or toxic chemicals could result in the release of these hazardous materials into external and internal environments.
- The airport Emergency Operations Center (EOC) may not be fully staffed with recovery personnel when damage assessment begins.
- The EOC will transition to recovery operations only when the initial emergency response phase has passed and immediate threats to life safety and property have been stabilized.
- Not all areas will be available for assessments immediately due to factors such as accessibility, damage, debris, safety concerns, or weather conditions.

As the incident progresses the airport will provide further information (Stakeholder Briefings, Debris Management Sites, Recovery Status, Employee Information, etc.). The EOC remains activated, and you may be contacted to assist with recovery operations or to provide information/personnel to assist in assessments. The following documents contain sample checklists/guides that may be used to help gather disaster related information. Additional information may be required to fully depict the incident impacts, as well as the resources needed to continue the recovery process.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

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<b>INITIAL STAKEHOLDER ASSESSMENT</b>	<b>Yes</b>	<b>No</b>
Are your premises operational?		
Can you do business from your location without significant repairs?		
Can you recover any of your inventory, supplies, and/or equipment?		
Have you created a list of your damaged & undamaged stock, equipment, and other assets?		
Have you prioritized the list of equipment and assets that you will need to get the business back up and running?		
Have you taken photographs of the damage including premises, equipment, supplies, inventory, etc.?		
<b>ACTION CONSIDERATIONS</b>		
Have you contacted your insurance company?		
Have you given your insurer your preliminary damage assessment?		
Has your insurance company been able to tell you what your insurance payout is likely to be, when the payout is likely to be made and whether it will be in the form of cash or asset replacement or a mix of both		
Have you contacted your staff? Check with insurance company to see if they cover paying employees?		
Have any of them been affected by the disaster?		
Have you contacted key stakeholders, vendors, suppliers, & anyone making deliveries to you?		
Have you contacted local and/or government agencies for support?		
Are you keeping staff and stakeholders, including key customers, suppliers & lenders/investors informed of what you are doing?		
Do you need to lay off staff for the time being?		
Do you need to postpone purchasing supplies/inventory?		
Can you cancel orders that you have made?		
If customer orders have been lost or damaged or you simply cannot support them on time, have you informed those customers?		
Do you qualify for financial assistance from the government and if so, have you applied for it?		
Have you restored your computer data backups and other necessary information?		
<b>FINANCIAL CONSIDERATIONS</b>		
Do you have access to your financial records?		
Will you be able to reconstruct the financial records of your business?		
If you cannot fully reconstruct your accounts, do you have access to historical financial statements or industry benchmarks?		
Have you determined the amount of cash your business currently has available & are you able to create a cash flow statement?		
Are you able to create a balance sheet and profit and loss statement from the beginning of the current fiscal year to the time of the disaster?		
Are you able to use your information from your cash flow statement, profit & loss statement, and balance sheet to analyze your current financial position?		

## (Sample) AIRPORT STAKEHOLDER SITE ASSESSMENT GUIDE

**Do not put yourself or others in danger to gather information. This information should only be assessed when safe to do so.**

**Proceed with Caution:**

- Survey damaged building.
- Document all problems/conditions in attached form.
- Prioritize/List essential inventory, supplies, and equipment needed for continued/contingency operations.
- Include the approximate percentage of damage for each category in building.
- Take photographs or video of the damage.
- Ensure everyone onsite is wearing Personal Protective Equipment.
- Maintain damaged items for your claims adjuster.
- Ensure notifications are made to key stakeholders, vendors, suppliers that may be affected.

For any information that requires emergency response contact:

Airport Emergency Dispatch: \_\_\_\_\_

### Business/Tenant Information

Name		Business Type/Services Provided	
Location		Location Contact Name/Title	
Phone Number		Airport Badge #	Email

### Incident Information

Incident Date	Incident Type	Inspection Date	Inspection Type	Inspector Name	Contact Number
			Initial/Supplemental		

### Employees Affected

Impacted	Fatalities	Injured	Sheltered	Transported	Unaccounted	Evacuated	Other

### Accessibility

Accessibility	Available	Limited	Impassible	Comments
Road/Wayfinding				
Parking Lot				
Site/Building				
ADA Access				

\*\*\*Provide more information on areas found with limited accessibility or limited access control. Include door numbers, alternate wayfinding in use\*\*\*

### Utilities

Utilities	None	Limited	Available	Comments
Water				
Sewage				
Electricity				
HVAC				
Phone Service				
Internet				

\*\*\*Available for more information on areas found \*\*\*

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(Sample) AIRPORT STAKEHOLDER SITE ASSESSMENT GUIDE (CONTD.)**

**Do not put yourself or others in danger to gather information. This information should only be assessed when safe to do so.**

**Proceed with Caution:**

- Survey damaged building.
- Document all problems/conditions in attached form.
- Include the approximate percentage of damage for each category in building.
- Take photographs or video of the damage.
- Ensure everyone onsite is wearing Personal Protective Equipment.
- Maintain damaged items for your claims adjuster.

**For any information that requires emergency response contact:**

**Airport Emergency Dispatch: \_\_\_\_\_**

Operational = O Limited = L Not Operational = N

**Building/Site Damage**

Inspection Items	O	L	N	Comments
Windows				
Doors				
Walls				
Ceiling				
Roof				
Floors				

**Equipment/Content Losses**

Inspection Items	O	L	N	Comments
Furniture				
Supplies				
Electronic Equipment				
Computers				
Photocopier				
Printer				
Telephones				
Vehicles				
Operational Support				
Records				
Additional Assets				
Airport Identified Assets				
Other				

**Concessions**

Inspection Items	O	L	N	Comments
Kitchen Appliances				
Cooking Equipment				
Hood/Fire Protection				
Cabinets/Food Storage				
Ventilation				
Preparation Counters				
Other				

**(SAMPLE) AIRPORT STAKEHOLDER SITE ASSESSMENT GUIDE (CONTD.)**

Do not put yourself or others in danger to gather information. This information should only be assessed when safe to do so.

Proceed with Caution:

- Survey damaged building.
- Document all problems/conditions in attached form.
- Include the approximate percentage of damage for each category in building.
- Take photographs or video of the damage.
- Ensure everyone onsite is wearing Personal Protective Equipment.
- Maintain damaged items for your claims adjuster.

For any information that requires emergency response contact:

**Airport Emergency Dispatch** \_\_\_\_\_

**Airport Security Information**

\*\*\*Provide information related to airport security, site security, and access control (door numbers, card readers, whether area remains sterile or secured, etc.) \*\*\*

**Impact to Operations**

\*\*\*Provide information related to the impact to operations to include current capabilities and contingency operations, and planned efforts\*\*\*

**Debris Management**

\*\*\*Describe the debris associated with the event including type, amount, associated hazards, and capabilities for removal\*\*\*

**Entry Access (Determination by Airport and First Responders)**

SAFE

RESTRICTED

NO ENTRY

**Estimated Damages**

**Damage Category**

Affected	Business space damaged (open for business)	Damage Category
Minor	Conditional use, repairable in less than 30 days, few \$1000's for repairs (open for business)	
Major	Significant or structural damage greater than 50% of value, temporarily closed for business	
Destroyed	Total Loss, Permanently Closed for Business	

\*\*\*Brief description regarding damages to include the structure as well as the contents and business assets associated with the affected location\*\*\*

Estimated Content Loss	\$	Estimated Total Loss (Best Guess)	\$
------------------------	----	-----------------------------------	----

**Additional Information**

\*\*\*Any additional information that may be required\*\*\*

## Attachment 5: (SAMPLE) RECOVERY SITUATIONAL REPORT

(SAMPLE) RECOVERY ASSESSMENTS/SITUATIONAL REPORT											
This document should be used to assist the EOC, or RCTF if activated, to help compile information regarding the ongoing efforts associated with a disaster. Additional information may be required to fully depict the incident impacts, as well as the resources needed to continue the recovery process. For more information on items to be identified when conducting assessments reference the Assessment Information Guide table within the Damage Assessment Appendix.											
Incident Name		Reported By				Report Date			Report Time		
Incident Location						Incident Type			Recovery Management		
									EOC / RCTF		
Life Safety		Damage Assessments				Recovery Organization					
		Type		Amount		Needed		Recovery Functional Area		Activated	Contact
Fatalities		Rapid Damage Assessments				Yes or No		Revenue and Art			
Injured		Initial Damage Assessments				Yes or No		Business Operations			
Displaced		Infrastructure/Tenants Impacted						Communications			
Sheltered		Status/Access	Minor		Major		Destroyed		Operations		
Evacuated		Airport							Preservation and Repairs		
Transported		Airline							RCTF Management Contacts		
Operational Period		Tenant									
		Government									
Major Impacts											
Current Operational Impacts											
Imminent Hazards											
Current Contingency Operations											

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

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<b>Aircraft Damages</b>
<b>Closures (including Roads)</b>
<b>Facilities on Generator</b>
<b>Response Limitations</b>
<b>Alternate Routing/Wayfinding</b>
<b>Strategic Objectives</b>
<b>Emergency Protective Measures</b>
<b>Inaccessible Locations</b>
<b>Resource Requests/Needs</b>
***Briefly describe current resources being utilized for recovery, and additional resource requests/needs)
<b>Employees Affected</b>
<b>Family/Assistance Services</b>
<b>Debris Management</b>
***Briefly describe current debris management operations (including TDMS, ROW, Assessments, etc.) ***

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

---

Damage Assessments						
*** Briefly describe the ongoing damage found during assessments, methods, actions, teams involved with assessments. ***						
Public/Emergency Information						
***Briefly describe notifications, briefings, public outreach that has been completed/planned ***						
Flight Operations						
***Briefly describe flight suspensions, diverts, delays, cancellations, etc. related to flight operations affected by the disaster ***						
Mutual Aid and Governmental Assistance						
*** Briefly describe the ongoing mutual aid representation and the efforts from governmental assistance, including staging/operational locations (IDAs, PDAs, Declaration, Resources, Logistics) ***						
EOC Status and Representation						
Weather Forecast/Considerations						
Incident Containment (Percentage)						
Additional/Supplemental Information						
Topic	Description				Reported By	
Affected Site Locations						
Site/Ref #	Type	Location	Owner	Condition	Access	Priority

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

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**Planned Recovery Efforts**

\*\*\* Describe the efforts the airport has planned to return the airport to an improved state, list construction and repairs, planned assessments, including methods, debris management, health and human services, security, etc. \*\*\*

**ESTABLISHING PRIORITIES**

Identification of infrastructure types and services should be included within the different phases of damage assessment operations. Priority Levels provide information that ensures areas with the highest need or have the highest impact to operational capability are prioritized and appropriately resourced.

- **Priority 1** - facilities are critical infrastructure and pose an immediate threat to public life or health or have been deemed necessary for the continuance of airport operations. Priority 1 facilities are typically initially assessed in response to an emergency, utilizing Rapid Damage Assessments and Initial Size Ups conducted by responding personnel, but will need to be thoroughly assessed in IDA operations as well.
- **Priority 2** - facilities relates to support services, high occupancy structures/locations, utilities, and other critical services. These facilities are assessed immediately following the Rapid Damage Assessment of Priority 1 infrastructure. If geographical positioning allows, Priority 2 facilities could be assessed when at the same time as the Priority 1 infrastructure. Locations with a high density of airport users are Priority 2 facilities due to access and functional needs possibilities of those structures.
- **Priority 3** - facilities are to be assessed directly following the assessment of Priority 1 and 2 facilities. Infrastructure not essential or critical such as public and private buildings, ramp areas not directly affecting operational continuance, or areas located far enough away from active aircraft operations that response and recovery efforts can be delayed for prioritization purposes will be designated as priority 3. Like priority 2 infrastructures, if geographical positioning allows, Priority 3 facilities could be assessed at the same time as the Priority 1 or 2 infrastructure. It is imperative that the assessment of a Priority 3 facility not cause a delay in reporting essential life safety information and therefore may cause a delay in assessment of priority 3 infrastructures.

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

<b>(Sample) Priority Infrastructure and Airport Lifelines</b>												
O=Operational N=Nonoperational L=Limited	O	N	L	Priority	O=Operational N=Nonoperational L=Limited	O	N	L	Priority			
<b>Emergency/Support Services</b>					<b>Utilities</b>							
Fire – Structure and EMS					Electric							
Fire - ARFF					Gas							
EMS					Water							
Law Enforcement					Sewage							
Communication Center/Dispatch					CNG							
Emergency Management/EOC					Fuel Farm/Fueling							
Airport Operations					Generators							
TSA					Power Plants/Boilers							
CBP					Lift Stations							
Contract Security					HVAC							
<b>Radios/Systems</b>					<b>Facilities</b>							
Access Control					Airport Office Buildings							
Passenger Screening					Concourse							
Baggage Handling					Concourse							
Automated People Mover					Concourse							
FIDS/BIDS					Main Terminal							
Antenna Farm – UHF/VHF					Fleet Maintenance							
Phone/Internet/WIFI					Security Gates							
ENS					Rail Service							
FAA ATCT					Hotel							
FAA TRACON					Plaza Areas							
Simplex					Deice Facilities							
Conveyances/ADA Access					FIS							
Emergency Fuel Shut Off (EFSO)					Jet Bridges							
<b>Essential Operations</b>					<b>Holding Lots</b>							
Airline/Cargo/GA					Parking Infrastructure							
Bussing					Badging Office							
FAA Part 139 Standards					<b>Public Services</b>							
Maintenance Communications					Art and Cultural Sites							
TSAR 1542 Compliance					Nursing and Pet Relief							
Ramp Tower					Restrooms							
Lighting Vaults					Concessions							
<b>Additional Infrastructure</b>					<b>Break Rooms</b>							
Data Centers					USO/Lounges							
IT Facilities					AFN Services							
Server Infrastructure					<b>Additional Lifelines</b>							
Data Storage Infrastructure												
Roadways – Airside/Landside												

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

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**Priority Infrastructure and Airport Lifelines**

**Information on Identified Sites with Limited or Non-Operational Status**

Location	Type	Priority Level	Planned Contingencies/Repairs

**Additional Notes**

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(Sample) SITE RECOVERY TEAM ASSESSMENT GUIDE**

Team Leader

Contact Information

For emergencies or to report suspicious activity contact:  
**Airport Emergency Dispatch:** \_\_\_\_\_  
 or the Emergency Operations Center: \_\_\_\_\_

**Overview:**

All damages may not be captured during the initial assessments, and if applicable the PDA. Recovery assessments will take place throughout the recovery process and serve two purposes:

- To ensure all damages have been captured.
- To ensure recovery actions are taking place.

**Goal:**

The goal of a Recovery Assessment is to:

- Confirm reported conditions.
- Assign Site reference number for continued tracking if not done so already.
- Estimate the overall magnitude of the damage.
- Identify personnel and operations at risk because of the emergency.
- Identify access and egress routes from the affected areas.
- Identify existing and potential threats.
- Identify locations that are unsafe to enter or that can be returned to operational status.

The information gathered from the Recovery Assessment will determine the need for or confirm the findings found during the initial damage assessments. Documentation is vital for financial reimbursement where applicable.

\*\*\*Report the progress and completion to the Team Leader to pass along to the EOC\*\*\*

Team Name (if applicable)		Assessment Team Safety Measures		Supplied	Worn
Team Member Name		Safety Equipment		Yes or No	Yes or No
Contact Information		Personal Protective Equipment (PPE)		Yes or No	Yes or No
Supervisor Contact Information		Name	Contact Information		
Date		Areas to be Assessed	Actual Areas Assessed	Equipment Allocated	
Briefing Time					
Team Arrival				Additional Remarks	
Time Start					
Time End					
Return Time				EOC Notified Time	

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

**(Sample) SITE RECOVERY TEAM MEMBER INSPECTION GUIDE**

Location		Site/Ref No.		Assessment Team Safety Measures	Supplied	Worn
Facility Type		Priority Lvl.		Safety Equipment	Yes or No	Yes or No
Team Member Name				Personal Protective Equipment (PPE)	Yes or No	Yes or No
Contact Information				Emergency Contact Name/Phone		
Supervisor Contact Information	Name			Contact Information		
Interviewee Contact	Name			Contact Information		
Date	<p>The goal of a Recovery Assessment is to:</p> <ul style="list-style-type: none"> <li>• Confirm reported conditions.</li> <li>• Assign Site reference number for continued tracking if not done so already.</li> <li>• Estimate the overall magnitude of the damage.</li> <li>• Identify personnel and operations at risk because of the emergency.</li> <li>• Identify access and egress routes from the affected areas.</li> <li>• Identify existing and potential threats.</li> <li>• Identify locations that are unsafe to enter or that can be returned to operational status.</li> </ul>					
Briefing Time						
Location Arrival						
Time Start						
Time End						
Return Time						
Inspection Method (Circle)						
Aircraft/Walkthrough/Interview						

**OBSERVATIONS**

\*\*\* Describe the recovery efforts including repairs, debris management, additional damage assessed, ingress/egress changes, services restored (access control, utilities, re-sterilization, etc.) \*\*\*

ACCESS LEVEL	✓
SAFE	<input type="checkbox"/>
RESTRICTED	<input type="checkbox"/>
NO ENTRY	<input type="checkbox"/>

**Business/Operation Description**

Days Affected		Employees Affected		Estimated Loss to Business	\$		% To Full Recovery	%				
Airport Security/Operations Status												
Current Impact to Operations												
Current Damage Level: (Circle)	Least	1	2	3	4	5	6	7	8	9	10	Most

**Determined Condition**

<input type="checkbox"/> <b>Affected</b>	<input type="checkbox"/> <b>Minor</b>	<input type="checkbox"/> <b>Major</b>	<input type="checkbox"/> <b>Destroyed</b>
<input type="checkbox"/> <b>Inaccessible</b>			

\*\*\*SEE SUPPLEMENTAL DOCUMENTS FOR ADDITIONAL GUIDANCE\*\*\*

## CONDITIONS PRESENT IN DAMAGE ASSESSMENT

### DESTROYED

The infrastructure is a total loss, or damaged to such an extent that repair is not feasible.

- Complete failure of two or more major structural components (collapse of basement walls, foundation, walls, or roof)
- Only foundation remains
- Will require immediate demolition or removal due to disaster-related damage or confirmed imminent danger

### MAJOR

Substantial failure to structural elements (e.g., walls, floors, foundation) or damage that will take more than 30 days to repair.

- Exterior wall damaged
- One room destroyed
- Floodwater standing more than 24 hours
- Sewer backups to cause sufficient contamination
- Water has come into contact with the floor system including bottom board insulation, ductwork, and subflooring.
- When the infrastructure has sustained significant structural damage and requires extensive repairs
- Water line above 18 inches in an occupied or required room. A water line above the electrical outlets
- Failure or partial failure to structural elements of the roof over required rooms to include rafters, ceiling joists, ridge boards, etc.
- Failure or partial failure to structural elements of the walls to include framing, sheathing, etc.
- Failure or partial failure to foundation to include crumbling, bulging, collapsing, horizontal cracks, of more than two inches, and shifting of the foundation of more than six inches

### MINOR

Encompasses a wide range of damage that does not affect the structural integrity of the infrastructure. Structure is damaged and not operational but may be made operational in a short period of time with repairs.

- Smoke damage
- Prolonged utility and/or access interruption
- Debris or standing flood water
- Waterline up to 18 inches in an occupied or required room or six inches and above in an unoccupied basement.
- Damage to mechanical components (furnace, boiler, water heater, HVAC, etc.)
- Nonstructural Damage Roof: shingles, roof covering, fascia board, soffit, flashing, and skylight
- Multiple small vertical cracks in foundation

### AFFECTED

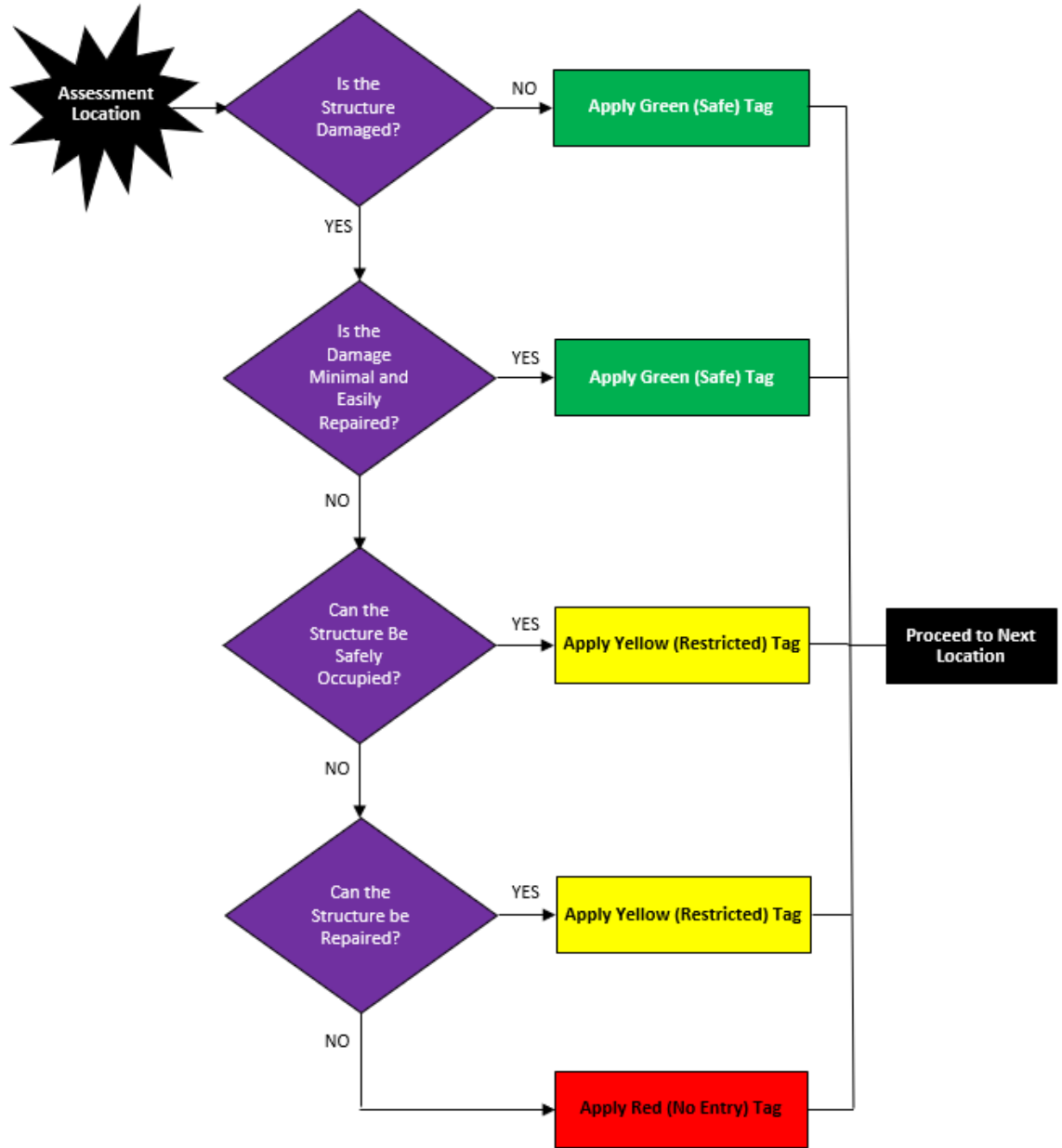
Infrastructure with minimal damage to the exterior and/or contents

- Partial missing shingles or siding
- Cosmetic damage: paint discoloration or loose siding
- Broken screens, gutter damage, and debris
- Damage to attached structure
- Any waterline in the basement when essential operating space or mechanical components are not damaged or submerged

### INACCESSIBLE:

Due to disaster-related loss of access: Bridge out, road flooded, or blocked by landslide, mudslide, severe erosion, washed out, etc.

# INFRASTRUCTURE TAG GUIDE



**(Sample) INFRASTRUCTURE TAG GUIDE**

**INSPECTION TAG**

**DO NOT REMOVE** (vertical text on left)

**DO NOT REMOVE** (vertical text on right)

This structure has been inspected and no apparent structural hazard has been found in the environment that represents a threat to the occupants.

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_  
Infrastructure Name/Location \_\_\_\_\_  
Inspector ID/Agency \_\_\_\_\_  
Additional Remarks \_\_\_\_\_

Caution: New events occurring after the inspection may increase or cause new damages that may change the result of the inspection. Report any unsafe conditions Airport Emergency Dispatch

**SAFE**

**INSPECTION TAG**

**DO NOT REMOVE** (vertical text on left)

**DO NOT REMOVE** (vertical text on right)

This structure has been inspected and some structural damage has been found in the environment that represents a threat to the occupants. This structure has been deemed safe to occupy with restricted access.

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_  
Infrastructure Name/Location \_\_\_\_\_  
Inspector ID/Agency \_\_\_\_\_  
Additional Remarks/Permitted Access \_\_\_\_\_

Caution: New events occurring after the inspection may increase or cause new damages that may change the result of the inspection. Report any unsafe conditions Airport Emergency Dispatch

**RESTRICTED ACCESS**

**(Sample) INFRASTRUCTURE TAG GUIDE**

**INSPECTION TAG**

**This structure has been seriously damaged and is unsafe. Do not enter.  
Entry may result in death or injury.**

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_  
Infrastructure Name/Location  
\_\_\_\_\_  
Inspector ID/Agency  
\_\_\_\_\_  
Additional Remarks/Permitted Access  
\_\_\_\_\_

**Caution: New events occurring after the inspection may increase or cause new  
damages that may change the result of the inspection. Report any unsafe  
conditions Airport Emergency Dispatch**

**NO ENTRY**

DO NOT REMOVE

DO NOT REMOVE

## Attachment 6: (SAMPLE) DEBRIS MANAGEMENT BRANCH GUIDE

### **(SAMPLE) DEBRIS MANAGEMENT BRANCH DIRECTOR GUIDE**

#### **POSITION OVERVIEW**

The Debris Management Branch Director will oversee and coordinate all debris management activity, including team assignments and supporting agencies. The Branch Director will also coordinate with the applicable sections within the EOC, or RCTF when activated, for debris management support. This position will report to the Operations Section Chief within the EOC.

#### **INITIAL RESPONSE/NOTIFICATIONS**

- Establish Debris Management Branch in EOC.
- Distribute relevant contact information.
- Inform personnel of hazardous conditions.
- Make initial debris management report/assessment to the EOC, RCTF, and local jurisdiction for further coordination efforts.

#### **COORDINATION EFFORTS**

- Debris Management team(s) for supervision and assignments during debris management activities
- Local public health representatives
- Local and any other government entities for coordinated debris management activities
- Local jurisdiction for on-site surveys with city, state, and FEMA officials
- Provide required paperwork to local jurisdiction to support requests for state and federal assistance.
- EOC Finance entities for the tracking of emergency-related costs
- PIO for relevant Debris Management information needed for stakeholders, media reports, and the public (damaged concessions, gates, extent of damage, etc.)
- Compile and/or update list of recyclers available with EOC Logistics.
- Coordinate debris management efforts with surrounding municipal and county governments to avoid duplication of efforts and conflicts, such as temporary debris management sites, if offsite facilities are being used.

#### **ONGOING ACTIONS**

- Maintain Branch Log.
- Maintain situational awareness of incident/recovery progression.
- Provide pertinent information to the IC as appropriate.
- Identify debris removal and processing equipment needs.
- Analyze damage assessments and establish debris clearance priorities, and determine the number of TDMS needed.
- Develop a debris removal strategy including local work assignments and priorities.
- Determine the need for debris clearance, removal, and disposal contractors and debris monitors.
- Secure all authorizations necessary for debris removal activities.
- Identify potential temporary debris storage and reduction sites and collect baseline data.
- Build and activate debris management teams.
- Brief debris management teams of assignments and coordinate activities.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- **Appoint personnel to be responsible for daily operational control of temporary debris storage and reduction sites.**
- **Coordinate the activation, development, review and/or update for all debris management related contracts, invoices, and procurement documentation including utilization of pre-existing vendors/contractors.**
- **Report on debris removal and disposal progress, and prepare status briefings for the EOC/RCTF and other local officials.**
- **Ensure an orderly demobilization of temporary debris storage and reduction sites in accordance with demobilization plans.**
- **Appoint and supervise Debris Management Team personnel responsible for monitoring all contractor debris removal and disposal operations.**
- **Monitor debris contractors, load inspections at temporary debris storage and reduction sites and other off-site areas, and preparation of Load Sheets at temporary debris storage and reduction sites or other impacted areas.**
- **Coordinate and monitor field site assignments and progress of the initial debris clearance from roadways and critical facilities.**
- **Coordinate daily morning meetings that include internal key personnel and debris management contractors to determine daily objectives and a discussion of operational progress and best practices moving forward.**
- **Ensure compliance with all federal, state, and local safety, environmental, historical preservation, and other applicable laws, regulations, and policies. (including all contractors and force account labor).**
- **Track weather forecasts and make operational adjustments, if needed, for each day's debris related activities.**
- **Ensure that unsafe buildings, roads, structures, etc. are visibly barricaded and marked as unsafe.**
- **Collect, compile, and maintain debris management records, including costs of emergency work.**
- **Provide technical assistance in ongoing evaluation of airport buildings and infrastructure damages.**
- **Determine SME support needs and ensure contacts are made.**
- **Stress and enforce safety to all Debris Management Branch members.**
- **Other considerations for debris management:**
  - **Demolition of structures**
  - **Removing debris from tenant/leasehold areas**
  - **Local law and / or code enforcement agencies**
  - **Historic and archaeological sites**
  - **Qualified environmental contractors to remove hazardous waste such as asbestos and lead based paint.**
  - **Abandoned vehicles**
  - **Receipt of Right-of-Entry Agreements with landowners**

**DEBRIS MANAGEMENT STRATEGY**

The Debris Management Strategy may contain, but is not limited to:

- An estimate of amount of debris (CY) by type including harmful debris.
- Recommendations of how to manage harmful debris, if applicable.
- Identification of available resources including airport staff and on-call contractors. A determination to activate any contracts can be included in the plan.
- Identification of temporary debris management sites to be utilized and any actions needed to make these sites operational such as permitting, fencing, security, and any reduction/recycling needs or equipment.
- Identification of final disposal sites including hours, and exclusions.
- How information will be collected and disseminated including what mediums to utilize for reporting debris locations for those airport stakeholders affected by the disaster.
- A stakeholder register including contact information and established roles of the debris management team, supporting agencies and external partners including State and Federal agencies, if applicable.
- Description of debris needs, priorities, goals, and objectives.
- Identification of potential type of debris operations needed to meet debris needs, priorities, goals, and objectives.
- An anticipated schedule of recovery by task.
- Any debris related incident specific guidance.
- Identification and inventory of debris management equipment and tools available for use including, but not limited to:
  - Load Tickets
  - Truck Placards
  - Handheld GPS devices
  - Measuring Equipment
  - Personal Protective Equipment
  - Digital Cameras
  - Street level field maps

**EMERGENCY MANAGEMENT**

Airport Disaster Recovery Planning Guide

## DEBRIS MANAGEMENT STATUS/STRATEGY

Incident Name		Incident Location	
Incident Type		Debris Management Branch Director	
Debris Management	Initial/Ongoing ____% Completed	Email	Phone Number

### Debris Types Present

\*\*\*Mark all that apply\*\*\*

Food Waste	<input type="checkbox"/>	Vegetative	<input type="checkbox"/>	Utility System	<input type="checkbox"/>	Hazardous Waste	<input type="checkbox"/>	Putrescent	<input type="checkbox"/>
Infectious Waste	<input type="checkbox"/>	Sandbags	<input type="checkbox"/>	Household Hazardous Waste (HHW)	<input type="checkbox"/>	Metal Debris	<input type="checkbox"/>	Vehicles	<input type="checkbox"/>
Municipal Waste	<input type="checkbox"/>	Construction Materials	<input type="checkbox"/>	Office Furnishings	<input type="checkbox"/>	White Goods	<input type="checkbox"/>	Aircraft	<input type="checkbox"/>
HAZMAT	<input type="checkbox"/>	Fueling Operations	<input type="checkbox"/>	Aircraft Support Equipment	<input type="checkbox"/>	Communication	<input type="checkbox"/>	Other	<input type="checkbox"/>

### Description

\*\*\*Describe the identified debris types. Include locations, quantity in (CY), and all hazardous items\*\*\*

### Priorities

\*\*\*Establish debris removal priorities that include the following\*\*\*

- Emergency Access Routes   
  Potential Staging Areas   
  Critical Facilities and Infrastructure   
  Roadways   
  Ops/Security Facilities and Infrastructure

Location	Owner/Tenant Contact	Debris Type (s)	Debris Amount	Prioritization Remarks

### Temporary Debris Management Sites (TDMS)

\*\*\*List locations that are in use or planned to be used for debris staging and storage\*\*\*

Location	Site Lead	Debris Limitations	In Use	Identified	TDMS Details (Priority, Coordination, Monitoring)
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

### TDMS Baseline Data and Closure Checklist

Before	During	Closure
<ul style="list-style-type: none"> <li>Take ground or aerial photographs and/or video.</li> <li>Note key features, such as structures, fences, culverts, and landscaping.</li> <li>Take random soil samples*.</li> <li>Take random groundwater samples*.</li> <li>Take water samples from existing wells*.</li> <li>Check the site for volatile organic compounds.</li> </ul>	<ul style="list-style-type: none"> <li>Establish groundwater-monitoring wells.</li> <li>Take groundwater samples.</li> <li>Take spot soil samples at household hazardous waste, ash, and fuel staging areas.</li> <li>Update videos/photographs.</li> <li>Update maps/sketches of site layout.</li> <li>Update quality assurance reports, fuel spill reports, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Site number and location</li> <li>Date closure complete</li> <li>Equipment and temporary structures removed</li> <li>Spills and releases remediated</li> <li>Activities performed to restore the TDMS</li> <li>Comparison of baseline information to conditions after site closure activities has been completed.</li> </ul>

## DEBRIS MANAGEMENT STATUS/STRATEGY (CONTD.)

Debris Management Tools/Personnel			Debris Management Information Strategy
<b>***Specifically assigned or needed for Debris Management***</b>			<b>***Information that may need to be provided to the Public/Stakeholders***</b>
<b>Type</b>	<b>Available</b>	<b>Needed</b>	(Coordinate with the PIO to disseminate accurate/current information)
Load Tickets			<ul style="list-style-type: none"> <li>Cleanup instructions</li> <li>Methods of debris collection</li> <li>Status of cleanup</li> <li>Locations of drop-off/collection sites including hours, and exclusions</li> <li>How to source-separate waste</li> <li>Handling procedures</li> <li>Milestones</li> <li>Addressing complaints regarding debris piles or illegal dumping</li> </ul>
Truck Placards			
Handheld GPS devices			
Measuring Equipment			
Personal Protective Equipment			
Digital Cameras			
Street level field maps			
Other _____			

### Hazardous/Harmful Debris

**\*\*\*Describe identified hazardous debris, and include the actions taken, strategies, resources being used/needed to address these items\*\*\***

### Objectives

**\*\*\*Describe the overall goals, needs, priorities, and objectives for debris management\*\*\***

### Strategy

**\*\*\*Describe the current actions and planned tactics/strategies in place to meet the goals and objectives for debris management\*\*\***



**EMERGENCY MANAGEMENT**

**Structure Demolitions**

**The following checklist identifies key tasks that local officials should address before a structure is approved for demolition. To expedite the overall effort, many of the tasks can be conducted concurrently.**

- Locate, mark, turn off, and disconnect all water and sewer lines.
- Locate, mark, turn off, and disconnect electrical, telephone, and cable television services.
- Provide executed right of entry agreements that have been signed by the owner and by renter, if rented.
- Ensure adequate notice to property owners and their tenants to remove personal property in advance of demolition.
- Document the name of the owner on the title, the complete address, and legal description of the property, and the source of this information. Document name of renter, if available.
- Ensure property will be vacated by demolition date.
- Provide written notice to property owners that clearly and completely describe the structures designated for demolition. Additionally, provide a list that also identifies related structures, trees, shrubs, fences, and other items to remain on the respective property.
- Provide the property owner the opportunity to participate in decision on whether the property can be repaired.
- Determine the existence and amount of insurance on the property prior to demolition.
- Specify procedures to determine when cleanup of property is completed.
- Provide copies of all ordinances that authorize the local officials to condemn privately owned structures. The authority to condemn privately owned structures would have to be accomplished by an ordinance other than one designed or enacted for the demolition of publicly owned structures.
- The local officials should coordinate all lands, easements, and rights of way necessary for accomplishing the approved work.
- Provide copies of all applicable permits required for demolition of subject structure(s).
- Provide copies of pertinent temporary well capping standards.
- Coordinate all pertinent site inspections with local, State, and Federal inspection team(s). Identify hazardous waste materials prior to demolition.
- Notify the owner/and or renter of all site inspections.
- Verify that all personal property has been removed from public and/or structure(s).
- Immediately prior to demolition, verify that the building is unoccupied.
- Ensure that the property is properly posted.
- Provide a clear, concise, and accurate property description and demolition verification.
- Include a Public Health official on the demolition inspection team.
- The inspection not only should evaluate the structural integrity of the building, but also must demonstrate “imminent and impending peril” to public health and safety.
- Segregate all hazardous waste materials to a permitted facility prior to building demolition.
- Provide photographs of the property and verify the address. Provide additional photographs of the property take immediately prior to and following demolition.

**List of Structures Scheduled/Completed for Demolition**

Site Ref No.	Location/Tenant	Date Assessed	Date Demolished

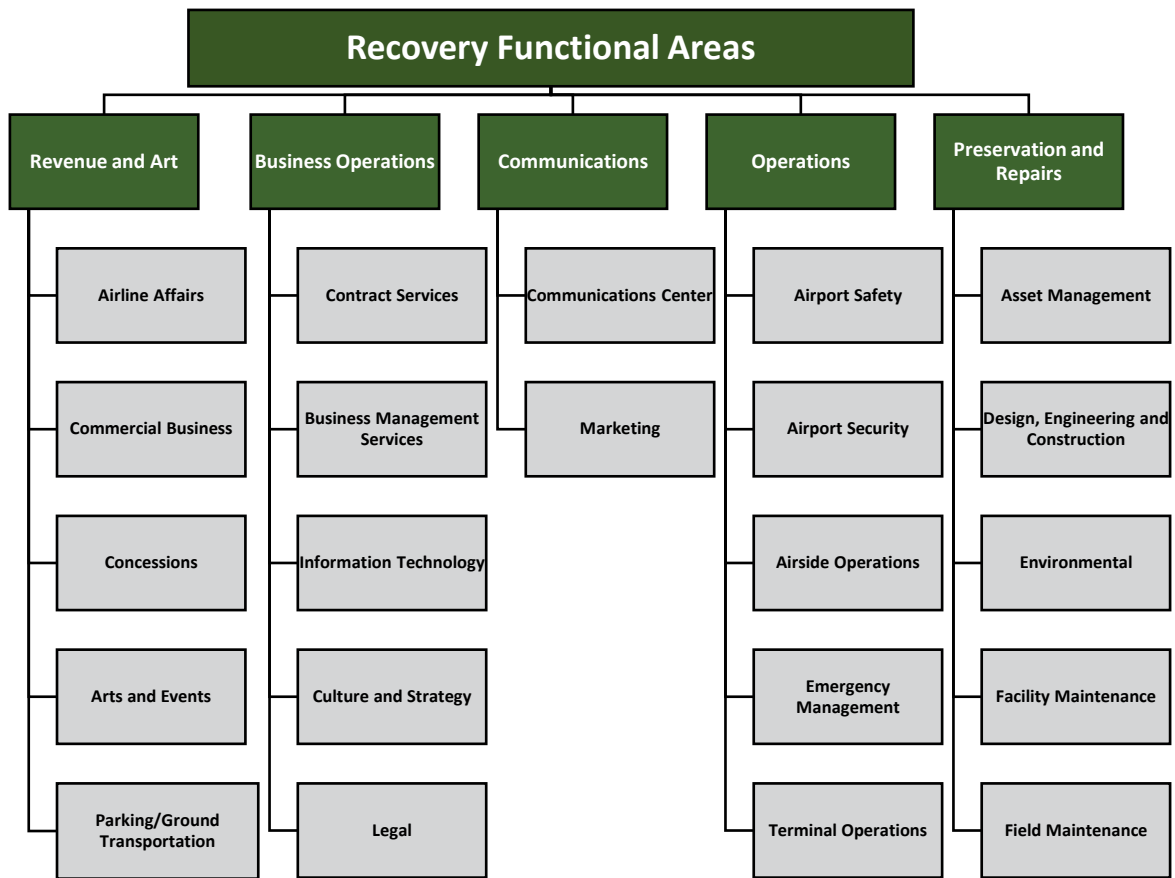


## Attachment 7: (Sample) Roles and Responsibilities/Action Items

### Overview

This attachment is comprised of sample roles and responsibilities, and action items that airports can select to include within their own disaster recovery plan. The following items are written to be generic to airports and may need to be expanded upon to best fit the complexity of each individual organization. Please note that not all items within this document will need to be used at every airport. Airports will need to collaborate internally to identify items that meet the individual airport’s capabilities. The information provided below is based off the example organizational structure found within the Airport Disaster Planning Guide.

**Example Recovery Organizational Chart**



## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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#### RFA: Revenue and Art

- Provide guidance for air carriers (local personnel and corporate offices) throughout all phases of recovery.
- Act as a conduit of information between the EOC/RCTF and tenants, and when practical, assist in the dissemination of accurate and timely information pertaining to recovery activities.
- Coordinate with tenants on timely resumption of services and leased space to maximize the customer experience during recovery.
- Make all reasonable efforts to coordinate with other workgroups for suitable alternatives when locations/facilities become untenable or inoperable.
- Coordinate reduced charges, revenue loss claims, and fee adjustments for air carriers based on untenable or inoperable locations.
- Consult with the Legal and Executive Team on regulatory requirements that may need to be adjusted based on airport capabilities throughout the various stages of recovery.
- Make recommendations/implement emergency contract adjustments for gate use.
- Anticipate and resolve problems associated with tenants and infrastructure during recovery operations and determine appropriate solutions.
- Coordinate with other workgroups to facilitate tenant guidance and short-term to long-term recovery solutions which may include repairs, reconstruction, and restoration to the damaged or destroyed sites to the better than pre-disaster condition.
- Provide guidance for tenants throughout all phases of recovery.
- Serve as a conduit of information between the EOC and tenants to provide accurate and timely information.
- Coordinate with tenants on timely resumption of services to maximize the customer experience during recovery.
- Anticipate and resolve problems associated with tenants and infrastructure during daily recovery operations and determine appropriate solutions.
- Provide guidance for concessionaires throughout all phases of recovery.
- Be a conduit of information between the EOC and concessionaires to provide accurate and timely information.
- Coordinate with concessionaires on timely resumption of services to maximize the customer experience during recovery.
- Anticipate and resolve problems associated with concessionaries during daily recovery operations and determine appropriate solutions.
- Provide subject matter expertise for art collections and exhibitions.
- Coordinate condition assessments with artists and/or conservators.
- Reference and document artwork affected by disaster impacts, and provide the EOC with prioritization/criticality of assets with significant importance to the airport.
- Implement emergency POs/insurance policies for repairs/exhibit removals.
- Execute necessary repairs in consultation with artist, conservator, and associated maintenance manuals.
- Coordinate storage capabilities for artwork until repairs are complete and/or reinstalled.
- Facilitate the return of artwork on loan to owners for extensive repairs or storage until adequate locations can be coordinated.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Provide external stakeholders guidance and coordination on efforts for artwork recovery activities.
- Adhere to policies and guidelines including condition assessments, while providing the EOC/RCTF best recovery practices.
- Coordinate for when artwork is beyond repair and must be formally deaccessioned from the City's art collection.
- Ensure access to designated employee parking areas for airport employees.
- Ensure temporary loading and unloading locations are identified for commercial operators.
- Coordinate with commercial transportation operators on alternate, temporary movement.
- Adjust shuttling needs for passengers and employees in circumstances where trains are inoperable.

#### RFA: Business Operations

- Provide contract services oversight of the recovery operations from transition through short to long-term recovery operations.
- Coordinate ongoing recovery efforts with current contract services and adjust contract needs for short to long term recovery efforts.
- Coordinate with stakeholders and outside agencies to ensure contract safety and compliance throughout recovery efforts.
- Collaborate with stakeholders to ensure efficient and safe passenger flow on working conveyances and altered APM routes in the terminal and concourses during recovery efforts.
- Coordinate with stakeholders and outside agencies to ensure the compliance of TSA security directives on the proper baggage handling procedures while in recovery.
- Facilitate the Emergency Purchase Order (Emergency PO) process for immediate recovery needs following a disaster.
- Transition into standard procurement practices once immediate recovery needs are addressed and recovery activities have stabilized.
- Maintain, to the extent possible, the critical infrastructure to keep the airport facilities open, allow air transportation in and out of the airport, and provide for basic needs for employees and customers.
- Provide technology products and service guidance to internal and external stakeholders throughout all phases of recovery.
- Organize the process and procedures related to the notification of service owners in preparation of recovery or the continuation of technology infrastructure with specific focus on the technology systems that support business functions.
- Anticipate and resolve problems associated with technology products and services during daily recovery operations and determine appropriate solutions.
- Identifies, assesses, and control risks associated with technology systems and infrastructure. This includes analyzing the value of assets to the business, identifying threats to those assets, and evaluating how vulnerable each asset is to those threats.
- Documenting any contractual requirements necessary to restore service.
- Coordinate with other recovery functional areas early in the recovery process and be considered as an element for any new build, new tenant, existing tenant move, or retrofit of an existing public or non-public space.
- Provide insight to cross divisional implementations, end of life or new considerations on technology solutions, and provide insight for product lead times which could affect project schedule.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Adherence to the regulatory requirements outlined in TSA NA-22-01, which outlines the review and approval process for the acquisition, usage, and maintenance of technology utilized in support of the airport's operations, personnel, or facility during recovery.
- Coordinate with other workgroups on identifying and facilitating potential vendors and contractors who can assist with airport recovery activities.
- Support employee wellness through established services, and coordinate with other workgroups for initiatives that promote resilience and wellbeing within the airport community.
- Process development guidance with other recovery functional areas regarding temporary services/procedures for recovery activities.
- Provide subject matter expertise on ADA policy and procedures including contingent initiatives pertaining to stakeholders with health conditions or impairments that may be impacted by recovery efforts.
- Provide leadership with insight to ensure a continual focus is maintained on the mission of providing the whole airport community the rights of an equitable, diverse, and inclusive airport throughout recovery.
- Corroborate the strategic planning associated with recovery progress by the implementation of data management that collects, processes, and validates specific information relevant to recovery performance.
- Provide guidance on interpretation of legal contracts with a focus on recovery.
- Monitor development and execution of new contracts for construction/revenue activities.
- Draft and approve appropriate contracts for additional services or the amending of existing contracts.
- Provide guidance regarding federal regulatory requirements, state law, and local ordinances.
- Advise regarding development of new contracts and enforcement of existing contracts for construction/revenue activities.
- Draft and approve appropriate contracts for additional services.
- Advise regarding insurance, finance, concessions, airline, tenant, disability access and other operational issues.

#### RFA: Communications

- Central point of contact for daily operations communications
  - Conducts operational communications regarding recovery efforts.
  - Initiates emergency notifications and informational notifications to impacted stakeholders.
  - Maintains situational awareness of evolving recovery needs.
  - Support for the EOC during the transition from response to short term recovery
  - Information regarding updated, temporary locations of emergency response assets from Operations
  - Awareness of altered roadway response paths and plans from Operations
  - Knowledge of locations of active construction areas – including ingress and egress routes from Operations Construction Liaisons
  - Receive designated 24-hour contacts for critical recovery operations.
  - Establishing and managing official communication channels and processes for sharing information across recovery efforts
  - Establishing policies for management of sensitive issues and information
  - Maintaining transparency to the public throughout recovery operations
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Informing the traveling public, airport employees and stakeholders, and media of continuing recovery efforts
- EOC support during transition from response to short term recovery
- Potential initial “all hands” for immediate recovery initiatives
- Periodic updates regarding recovery activities to include in executive and senior leadership communications.
- Assist with any logistical needs throughout the event.
- Dispatch maintenance teams, to include contractors, to assist.
- Document pertinent information and activities of events, description of damage, location, areas affected, etc.
- Notify stakeholder liaisons of damage, areas affected, etc.

#### RFA: Operations

- Actively promote the section’s safety goals and objectives throughout the recovery process.
- Foster personal stewardship of the resources available to aid in injury, accident, and loss prevention as well as promotion of a healthful workforce.
- Performs safety risk assessments for changed conditions, temporary plans, or repairs.
- Promote safe practices and personal safety awareness through education and safety leadership during stressful response and recovery operations.
- Create and maintain call list of PPE vendors, testing labs, task subject matter experts, etc. that can be utilized by recovery support personnel.
- Effectively communicate emergent safety issues with management and impacted stakeholders and proffer a variety of solutions to reach a resolution.
- Ensure the airport follows established rules and regulations, the Airport Security Program (ASP), and applicable Security Directives to meet the federal regulations.
- Act as the liaison between the airport and the TSA for gathering and disseminating information concerning security matters throughout the recovery process.
- Coordinate with TSA on the ongoing implementation of Temporary Amendments needed for recovery activities.
- Coordinates with airport stakeholders, including the FAA, to balance the needs of each group to optimize operations while accomplishing critical airport activities with a minimum impact on the operation of the airport during the recovery process.
- Anticipate and resolve problems encountered on the airfield during daily recovery operations and determine appropriate solutions.
- Provide oversight of the recovery operations from transition through short to intermediate recovery operations
- Coordinate multi-disciplinary recovery activities from a singular location.
- Establish mutual aid check-in, staging, and operational locations.
- Provide updates to leadership on the status of recovery operations.
- Coordinate ongoing recovery efforts with outside agencies and partners.
- Mobilize/demobilize resources needed for recovery.
- Provide proper documentation of the recovery.
- Ensure efficient and safe passenger flow in the terminal and concourses during recovery efforts.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Monitor tunnels and landside roadways to ensure safe and efficient flow with the Airport's main access road and terminal roadways being top priority.
- Assist the Airport in resolving daily airport emergencies related to terminal and landside operations while recovery operations commence.
- Manage the day-to-day operations at security checkpoints, collaborate with TSA, coordinate line management with third party contractors adjusting passenger movement.
- Monitor airline operations including adjusted passenger operations at the airline ticket counters, gate areas, skycap and wheelchair operations, baggage claim, and baggage make-up units.

#### RFA: Preservation and Repairs

- Incorporate asset management tools/methods for tracking and reporting out damages to infrastructure.
- Utilize floor plans to assess impacted locations that are not under construction/renovation.
- Evaluate potential failure methods and scenarios and develop a response plan related to the design, construction, and return to operations from a project management, construction management, and contractual management perspective.
- Implement pre-planning activities to minimize the response time to effect various response plans based on a consensus evaluation of cost vs. benefit, in coordination with other participating workgroups.
- Coordinate communications with airport stakeholders, the public and the media for information on response and recovery efforts/activities.
- Evaluate ongoing responses/recovery efforts and planned actions to determine potential impacts on safety, efficiency, and customer service for the whole airport community.
- Provide a project management approach to recovery activities by implementing the initiating, planning, executing, and closing phases of the project lifecycle.
- Provide oversight of environmental regulatory compliance associated with recovery specific actions, such as, debris management activities.
- Determine severity, responsibility, and authority of environmental nonconformity concerns and prioritize findings to provide the EOC/RCTF with recovery decision making capabilities.
- Assist with the coordination of environmental asset/infrastructure protective measures, along with emergency procurement of resources for those mitigation actions.
- Document environmental mitigation actions associated with the incident including clean up procedures.
- Coordinate with governing agencies on regulatory compliance and communication procedures.
- Assess environmental recovery capabilities, and communicate best practice/alternatives to the EOC/RCTF
- Coordinate the emergency procurement of resources needed to complete environmental recovery-based activities.
- Assist in the selection, approval, operation, closure, and remediation of temporary debris management sites.
- Assist in the development and implementation of nonconformity solutions for stakeholders throughout recovery.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Complete ongoing analysis and reviews of effectiveness for corrective actions, and maintain lists of “active” or “completed” action plans.
- Serve as lead for initial recovery objectives focusing on non-engineering tasks.
- Acquire deployable resources for immediate recovery needs.
- Coordinate with Operations to assess and implement temporary protective measures.
- Ensure expedited shutoff for utilities impacted.
- Identify alternative utility capabilities to maintain appropriate levels of service.
- Perform non-engineering tasks in support of initial recovery objectives.
- Supply, utilize, or acquire resources that support immediate recovery needs.
- Coordinate with Operations to assess and implement protective measures.
- Collaborate with other workgroups for debris removal activities and clear areas needed to resume operations.

## (Sample) Transition Phase Action Items

### RFA: Revenue and Art

- Coordinate with the EOC and assist with notifications to the affected tenants.
- Assist EOC with the identification and documentation of affected tenants, facilities, and equipment including operational and damage assessments.
- Assist the EOC with tenant and employee notifications and recovery information.
- Receive and assist Airport Operations in communicating to tenants any procedure modifications and facility adjustments implemented for maintaining or adjusting the Secured and Sterile Area parameters.
- In the event of emergency utility shut offs, coordinate with the EOC and assist with notifications to affected tenants.
- Document affected tenants, facilities, and equipment including operational and damage assessments.
- Assist the EOC with tenant and employee notifications and recovery information.
- Coordinate with Airport Security and tenants for procedure modifications and facility adjustments.
- Coordinate with the EOC of emergency utility shut off notifications to affected concessionaires.
- Document affected concessionaires including operational and damage assessments.
- Assist the EOC with concessionaire employee notifications and recovery information.
- Coordinate with Airport Security and concessionaires for altered Vendor Inspections and location adjustments.
- Provide staffing for the EOC.
- Identify any impacts to parking structures with the EOC and law enforcement.
- Develop immediate contingencies to avoid impacted areas to reroute vehicles for public and employee parking.
- Deploy Variable Message Boards (VMB) for airport information and/or routing dissemination.
- Contact commercial transportation operators regarding the situation and temporary contingencies.
- Communicate parking changes adjustments to public and employee parking.
- Coordinate with Airport Security to reduce delays involving contingency vehicle security access.
- Reallocate resources and coordinate with city personnel/equipment for continued busing service.
- Where Compressed Natural Gas (CNG) availability has been diminished, coordinate contingency operations which may include temporary fill sites.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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#### RFA: Business Operations

- Coordinate contingency efforts and protective measures for affected contract services that include janitorial, conveyance, and baggage handling.
- Coordinate the implementation of Emergency Service agreements that enable temporary contract deviations to assist in the transition from response to short term recovery.
- Assist the EOC with information and subject matter expertise on the status of personnel, equipment, and deficiencies within contract services.
- Collaborate to resume baggage handling system that meets all TSA compliance regulations while recovery efforts take place.
- Review and alter, if necessary, APM operations to ensure the best use of systems to better serve recovery efforts.
- Follow failure modes of operations where necessary.
- Take protective measures by diverting or collecting spills that may enter train tunnels and control rooms that will affect electrical lines.
- Coordinate APM status updates with the EOC.
- Assist with implementing other protective measures for equipment and personnel to protect infrastructure and safe flow of passengers through affected areas.
- Collaborate with other airport workgroups to assist in implementing protective measures for equipment, personnel, and infrastructure to ensure the safe flow of passengers through affected areas.
- Coordinate the safe restart of affected conveyances and create an ongoing status report of working/out of service conveyances to be given to the EOC.
- Collaborate to assist with procedures that will safeguard and secure baggage handling equipment and infrastructure allowing for efficient return to service.
- Implement contingency plans to continue limited operations on available curbside facilities.
- Advise airport leadership on reduced capabilities and realistic operational expectations.
- Collaborate with internal and outside agencies on the logistics of alternate screening procedures.
- Document affected technology infrastructure, equipment, and services and assess operational capabilities.
- Validate the reported loss, evaluate scope of loss, and coordinate resolution.
- Coordinate with the EOC regarding system losses and service interruption notifications to affected stakeholders.
- Assist the EOC with contingent notification distribution and recovery information.
- Implement contingent operations with a focus on restoring technology systems that support business functions.

#### RFA: Communications

- Provide staff for the Public Information Officer (PIO) position for the EOC.
  - Develop recap of the incident into transition for leadership's awareness and for leadership to provide to downtown officials.
  - Respond to media inquiries and acquire vetted photos to share with media outlets.
  - Create key messaging for media and customer service.
  - Disseminate information and provide updates as able.
  - Establish messaging priorities and information with downtown public information entities to ensure
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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consistent messaging.

- Identify locations and times to conduct press conferences and coordinate SME support on disseminating technical information.
- Post appropriate information on social media outlets.
- Scale up staffing for initial 24-hour coverage for information booths and customer service.
- Coordinate messaging for passengers, including Terminal and Concourse announcements.
- Coordinate the development of a wayfinding plan.
- Put out initial call for volunteers and coordinate consistent call-out messaging.
- Communicate directly to employees through the established communication methods.
- Update the employee Intranet site with the latest information available.
- Provide support for communications with tenants and leaseholders (e.g., concessions, airlines).

#### RFA: Operations

- Protect public safety by helping to identify structures or areas for which access should be restricted.
- Establish a method to communicate building safety status areas with the travelling public, stakeholders, and airport employees.
- Continuously monitor recovery efforts to ensure personnel follow all necessary safety guidelines and regulations.
- Assist stakeholders with implementation and evaluation of safety plans to meet airport expectations.
- Protect public security by helping to identify structures or areas for which access should be restricted in coordination with maintenance and Law Enforcement.
- Establish a method to communicate the security status of areas with the travelling public, stakeholders, and airport employees.
- Evaluate impacts to security resources.
- Identify existing and additional resources needed to provide scene security, including contract security and security cameras.
- Establish a process for documenting expenses related to temporary security measures.
- Identify ASCs or alternate points of contact who will be available for questions directly related to the recovery project and connect them to the EOC.
- Coordinate provisions to establish secure alternate ingress and egress routes for response vehicles and equipment.
- Coordinate with concessionaires and contract security for altered vendor inspections and location adjustments.
- Help facilitate the transition from response to recovery after the plans and procedures outlined in the AEP have been implemented.
- Ensure compliance with Part 139 Regulations and reduce Airport's capabilities if needed.
- Coordinate with FAA on resumption of aircraft operations or reduced flow due to decrease in passenger throughput or other considerations.
- Assist the EOC with airside operation tasks related to recovery efforts including debris removal/storage, emergency access routes, incident and equipment staging, routes, employee assistance, irregular operations.
- Extend airfield closures to meet the need during transition to short-term recovery closures.
- Emergency Management in coordination with the EOC will oversee the transition from Initial Response

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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to Short-Term Recovery Efforts. Activities that facilitate this transition will include:

- Assist with the dissemination of emergency messaging to all badge holders for airport procedural changes.
- Communicate status of transitional activities to leadership.
- Identify the primary stakeholders that will need to participate in the EOC's recovery activation and request appropriate staffing.
- Establish recovery objectives for the phases of recovery and communicate them to appropriate stakeholders.
- Develop cadence for recovery situation report for executive leadership and stakeholder leadership.
- Develop recovery strategy with stakeholders and executive leadership.
- Assistant in implementing protective measures for infrastructure and equipment.
- Protect public safety by identifying structures or areas for which access should be restricted.
- Identify protections for TSA equipment if applicable and support spaces and equipment exposed as a result of the failure.
- Coordinate the reallocation of resources from affected areas to better support contingent operations.
- Assist in the creation and deployment of signage to facilitate wayfinding through contingent operations.
- Initiate emergency queue management support.

#### RFA: Preservations and Repairs

- Provide reference materials and "just in time" training to required Recovery Functional Area workgroups for disbursement to Damage Assessment Teams.
- Assess extent of damage, and risk of damage propagating if not immediately repaired, to include the risk to adjacent systems or equipment.
- Inspect and stage the repair materials maintained on-site, and determine if sufficient material is on-hand or if additional material is required.
- Initiate change orders to existing emergency POs to sufficiently fund greater repair efforts and mobilize contractors as required.
- Coordinate with other workgroups for acquiring and implementing protective measures for critical infrastructure and assets (sandbags to isolate pooling water, tarps for dry-in of exposed infrastructure/assets).
- Work with the EOC to prioritize the infrastructure that should be protected first.
- Set up temporary walls to assist in asset protection and for employee/passenger wayfinding.
- Clear areas in the impacted location to serve as ingress and egress points for recovery operations.
- Provide utility restoration timelines and service outage information to the EOC.
- Identify properties or structures for abatement that constitute a public safety hazard or that have endured damage beyond repair.
- Conduct priority repairs within on-site resources capabilities.
- Continue coordination of response-phase power restoration activities and support utility companies as requested.
- Coordinate with other workgroups to acquire and implement protective measures for critical infrastructure and assets (sandbags to isolate pooling water, tarps for dry-in of exposed infrastructure/assets).

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Work with the EOC to prioritize the protection of assets and infrastructure.
- Clear debris and complete emergency repairs (roads, ramp areas, gate areas) in impacted locations to serve as ingress and egress points for recovery operations.
- Supply personnel and resources to begin recovery efforts.

## (Sample) Short-Term Phase Action Items

### RFA: Revenue and Art

- Utilize airport resources and coordinate with other workgroups for temporary locations or operational alternatives (vacant or combined spaces) for airline partners.
- Provide the Emergency Management team with information on any Airline Affairs relevant recovery efforts, including direct contact information respective to each affected tenant that can be easily accessible during recovery efforts.
- Assist in the coordination with Airport Safety and Airport Security of tenant access when timed entry or restricted access procedures are implemented.
- Utilize available airport resources to assist in resumption of operations.
- Collaborate with local public health officials on reduced operation approval where capabilities allow.
- Coordinate with tenants for temporary location or operation alternatives (vacant or combined spaces).
- Provide emergency management plans including direct contact information respective to each affected tenant that can be easily accessible during recovery efforts.
- Assist in the coordination of tenant access.
- Utilize available airport resources to assist in resumption of operations.
- Collaborate with local public health officials on approved operational capabilities that can be returned to reduced operations.
- Coordinate with airport concessionaires with temporary concessionaire alternatives (e.g., Tuk-Tuks, vacant concessionaire spaces).
- Provide emergency management plans including direct contact information respective to each affected concessionaire that can be easily accessible during recovery efforts.
- Assist in the coordination of concessionaire access including safety and security efforts during recovery with airport Security and Safety.
- Develop extended alternate traffic routing plans and communicate plans.
- Coordinate on identifying anticipated roadway congestion timeframes.
- Maintain communication with Airlines and develop or reinstate scheduled employee busing routes.
- Work with Transportation Network Companies (TNCs) to change geofencing and location capabilities.

### RFA: Business Operations

- Assess the impact to contracted workforce, including staffing levels for recovery operations.
  - Implement contingency plans equipment failures.
  - Assist in a phased approach to safe resumption of impacted facilities and equipment.
  - Continue status updates to the EOC on continued outages.
  - Continue ongoing review of conveyance and APM operations to best serve recovery efforts.
  - Coordinate to ensure ADA access and compliance through recovery efforts.
  - Collaborate to ensure water flow from affected areas are diverted away from working equipment and personnel to coordinated collection areas.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Identify resource and equipment needs to reestablish conveyance operational functionality.
- Identify resource and equipment needs to reestablish baggage handling operational functionality.
- Utilize available airport resources to assist in resumption of operations.
- Coordinate with airport stakeholders on implementation strategies of contingency operations requiring technology support.
- Assist in the coordination, redeployment, reallocation, or procurement of capabilities and equipment to assist with contingency operations and recovery activities for internal and external stakeholders. This may include equipment associated with access control, audio/visual, airline service, communications, etc.
- Explore alternative processes or systems that may be acquired to assist in recovery operations.

#### RFA: Communications

- Talking points for customer service, and information assistance volunteers to use during recovery wayfinding and queue management activities.
- Shift to once daily updates to media.
- Develop alert banner and provide updates to the public on recovery actions on the airport website.
- Transition away from 24-hour operations and assess need for extended operations.
- Direct volunteers to support specifically identified areas.
- Establish a recovery email for employee questions in conjunction with Emergency Management.

#### RFA: Operations

- Coordinate with stakeholders to promote public awareness of available resources and services for employee health, wellness, and safety.
- Work with concessions, airlines, and security to establish safety and security process and criteria for allowing tenants into their affected workspace.
- Coordinate initial safety expectations with recovery contractors without previous airport work history.
- Initiate and facilitate as necessary frequent safety briefings to ensure up to date information transfer.
- Identify environmental safety concerns that may require further assessment and/or contract remediation (e.g., air quality, mold, etc.).
- Maintain a steady presence throughout the recovery process to assist with safety related concerns.
- Continue monitoring, as deemed necessary by Airport Safety personnel, recovery efforts to ensure personnel follow all necessary safety guidelines and regulations.
- In instances where one or more screening checkpoint is inoperable, collaborate with TSA on the establishment of alternate protocols to support expedited access to the sterile area for employees.
- Monitor recovery efforts to verify personnel follow all necessary security rules and regulations.
- Work with Concessions, Airlines, and Safety to establish safety and security process and criteria for allowing tenants into their affected workspace.
- Evaluate contract security personnel allocation needs to meet demand during the recovery process and coordinate contract adjustments, as appropriate.
- Compare repair and restoration needs with available personnel assets.
- Communicate the importance of adhering to recovery related rules and regulations to stakeholders and employees.
- Initiate communications with stakeholders on up-to-date policies and procedures for regulation compliance.

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Coordinate with TSA to ensure compliance with regulations and develop Temporary Amendments when necessary and applicable.
- Help coordinate elected official/VIP tours of the airfield.
- Coordinate drone usage permissions with FAA for damage assessment.
- Coordinate with FAA on expanding resumption of aircraft operations, and the status of airfield closures related to the event.
- Assist with altered airfield commute routes to maintain operations during recovery.
- Establish haul routes for debris management and coordinate escort needs for those recovery partners who need access to the airfield.
- Demobilize branches of the EOC, as appropriate.
- Collaborate with internal and external agencies on determination of areas that should remain closed, due to damage or ongoing investigation.
- Coordinate the reopening of affected areas as able.
- Confirm the establishment of a perimeter around affected area(s), keeping the area(s) out of sight from the public.
- Coordination of documentation (e.g., gathering and archiving all documents regarding the incident, including costs and decision making).
- Review damage assessments to understand the operational status of current stakeholders to determine which are still operating, which had to close, and which can reopen with available resources and support.
- Prioritize initial support to reestablish essential commercial services (e.g., airline ticket counters, restaurants, shopping) in locations near key locations.
- Coordinate and document the establishment of safe ingress and egress routes for response vehicles and equipment.
- If road capacity is constrained, limit access by private vehicles and add additional routes in coordination with parking/ law enforcement personnel.
- Implement applicable Continuity of Operations Plan (COOP) and relocate to alternate facilities, where possible, to resume essential government functions if necessary.
- Assist the airport in Identifying available facilities that could be used for the temporary relocation of businesses.
- Establish a recovery email address for employee to submit questions.
- Manage the daily passenger operations through the Federal Inspection Services (FIS)/Customs facility during recovery efforts and coordinate alternate means with Customer Service.
- Establish continuous queue management activities throughout duration of the recovery.
- Assist in the data collection and distribution of available resources utilized throughout recovery efforts.
- Adjust usage of temporary signage to provide updated information and strategic movement throughout the impacted areas during the recovery process.
- Develop contingency operations for airline ticket counters and gate areas in coordination with airline partners and Emergency Management.
- Develop a wayfinding plan for employees and passengers to navigate through temporary queuing systems and barricades.
- Monitor climate comfort levels and request changes, as necessary.
- Train employees to assist others in wayfinding/new procedures.
- Assist in the development of daily contact sheets to communicate and coordinate emergency and

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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recovery project-based construction activities.

- Coordinate with customer service, public information officers, and project managers to provide elected official/VIP tours of impacted area.
- Monitor utilized materials (e.g., stanchions, barricades, etc.) related to impacts to ensure adequate supply throughout all phases of recovery.

#### RFA: Preservations and Repairs

- If provided, incorporate non airport assets for assessment reference (e.g., TSA equipment).
- Review damage assessments of individual resources and aggregate this information to understand damage by asset type across the affected areas.
- Collaborate on asset identification and documentation during recovery efforts that include outside organizational assets.
- Compile, maintain, and disseminate damage assessment data for use in decision making/monitoring of recovery operations.
- Determine approach for repair activities and establish shutdown requests, traffic control, and other associated project planning of affected areas and systems.
- Mobilize in-house/external resources needed for recovery.
- Determine need for associated professional services or construction trades, such as structural engineering assessment, design services, general construction, or disaster mitigation and initiate procurement of services according to on-call contract terms.
- Determine need for building permits and initiate permit review of preliminary design documents.
- Establish areas for temporary debris storage using barriers/guardrails.
- Collaborate for debris removal deemed safe to move.
- Establish contingency procedures to provide support during recovery operations.
- Coordinate the emergency procurement of equipment and materials to assist with utility requirements.
- When alternate resources are required, coordinate safe handling practices to ensure personnel safety.
- Complete minor repairs to facilities through existing city and county maintenance staff.
- Establish emergency purchase orders for heating capabilities/climate control and identify critical locations for positioning such resources.
- Establish areas for temporary debris storage using barriers/guardrails.
- Collect debris deemed safe for removal.
- Monitor and adjust protective measures as recovery progresses.
- Continue to monitor resource needs for both personnel and equipment (emergency lighting, water, snowplows/heavy equipment for debris removal).

## (Sample) Intermediate Phase Action Items

#### RFA: Revenue and Art

- Assist tenants in obtaining information regarding insurance claims.
  - Coordinate and notify tenants throughout the recovery process on planned return to service schedules.
  - Assist tenants in obtaining information regarding insurance claims and small business loans.
  - Coordinate and notify tenants throughout the recovery process on planned return to service schedules.
  - Assist concessionaires with information on processes for insurance claims and small business loans.
  - Coordinate and notify concessionaires throughout the recovery process on planned return to service schedules.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Update ground transportation webpages and maps to reflect current configuration.

#### RFA: Business Operations

- Adjust contract needs to assist recovery efforts.
- Ensure continuous compliance of service agreements with existing and newly acquired contract services.
- Continue ongoing review of conveyance, baggage handling, janitorial services and APM operations to best serve recovery efforts.
- Report any anticipated supply chain issues and/or outages to the EOC.
- Coordinate with workgroups to ensure recovery efforts do not interfere with working systems and equipment.
- Coordinate the repair and return to service operations.
- Coordinate the return to service operations through the efficient shutdown of alternate procedures.
- Assist stakeholders with information on processes, shutdowns, service outages and altered procedures while recovery efforts are in place.
- Coordinate and notify stakeholders throughout the recovery process on planned return to service schedules.

#### RFA: Communications

- Assess and adjust continuing staffing needs for staff and volunteers.
- Provide written material on planned openings/closings of affected areas and how operations may be adjusted.

#### RFA: Operations

- Help coordinate the distribution of safety information to the travelling public, stakeholders, and airport employees on ongoing airport safety recovery Initiatives.
- Coordinate contractors for environmentally impacted areas for remediation.
- Monitor recovery efforts to verify personnel follow all necessary security rules and regulations.
- Assess and adjust recovery security tactics and protocols as recovery progresses.
- Assist in the development of daily communications plans to update and query those personnel related to the event.
- Attend as necessary daily work briefings with project managers for recovery efforts that may affect/impact the airfield.
- Coordinate larger work efforts that may only be done during reduced traffic demand or require closures.
- Coordinate the overall return of airport infrastructure to previous or better state.
- Advocating for State and Federal Assistance (creating a narrative of the event for the purposes of obtaining Federal assistance) In instances of, or possibility of, a federally declared disaster.
- Facilitate needed work briefings with maintenance and operations for recovery efforts (e.g., what happened, priorities for next day).
- Assist First Responders in the creation of contingency response procedures for daily operations and adjust as needed as recovery efforts continue.

#### RFA: Preservation and Repairs

- Prepare floor plans for use in monitoring of recovery operations.
  - Mobilize in-house/external resources needed for recovery.
  - Provide updates to the EOC/RCTF on the status of Preservation and Repair's recovery operations.
  - Provide proper project documentation of the recovery.
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Demobilize contractors, if used and as required.
- Update initial permit set design documents and revise permit review if required.
- Adjust temporary barriers and other protective measures as the recovery progresses.
- Conduct superficial repairs (e.g., drywall, tiles, etc.), as able.
- Coordinate procurement and contracting for significant repairs that exceed capabilities.
- Develop and initiate phased approach to utility restoration with utility providers and contractors based on progress of repair.
- Attend daily work briefings with project managers for recovery efforts that may affect maintenance operations.
- Adjust temporary barriers as recovery progresses.
- Continue incident cleanup and debris removal.

## (Sample) Long-Term Phase Action Items

### RFA: Revenue and Art

- Track the status of operations for impacted tenants.
- Return tenants to their original operating area if relocated during short-term recovery.
- Assist tenants in long-term relocation efforts, which may include restoration of original facilities, or new construction that requires contract/agreement adjustments or terminations.
- Track the status of operations for impacted tenants.
- Return tenants to their original operating area if relocated during short-term recovery.
- Assist tenants in long-term relocation efforts.
- Track status of return to operations for impacted concessionaires.
- Return concessionaires to original operating area if relocated during short-term recovery.
- Assist concessionaires in long term relocation efforts.
- Items identified in transition to Intermediate recovery would continue and gradually diminish until full return to service and reopening of impacted structures/roadways.

### RFA: Business Operations

- Conduct after-action reviews with internal and external stakeholders to identify long-term recovery programs, gaps in recovery efforts, and other projects or initiatives to inform the Recovery Strategy.
- Determine long-term strategies to restore impacted areas and enhance resilience to future disasters.
- Track status of return to operational capabilities for impacted stakeholders.
- Return stakeholder operational capabilities to original operating area if relocated during short-term recovery.

### RFA: Operations

- Evaluate recovery efforts to ensure safety guidelines and regulations continue to be adhered.
  - Establish policies and procedures that reflect long term changes caused by ongoing recovery efforts.
  - Evaluate recovery efforts to ensure security rules and regulations continue to be enforced.
  - Establish policies and procedures that reflect long term changes caused by ongoing recovery efforts.
  - Coordinate with FAA on resumption of capabilities that may have been reduced to maintain Part 139 standards.
  - Conduct after-action reviews.
  - Engage the recovery steering committee to identify long-term recovery programs, gaps in recovery
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## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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efforts, and other projects and initiatives to inform the Recovery Strategy.

- Determine long-term strategies to restore impacted areas and enhance resilience to future disasters.
- Coordinate larger operational efforts throughout standard construction project management activities.

#### RFA: Preservation and Repairs

- Compile, maintain, and disseminate damage assessment data including asset recovery status for required internal and external stakeholders (FEMA for possible monetary reimbursement).
- Remove temporary barriers and other protective measures as recovery is completed.
- Complete superficial repairs to any remained damaged infrastructure.
- Hardening of utilities.
- Remove temporary barriers as recovery is completed.

## (Sample) Information Collection and Measures of Recovery Progress

#### RFA: Revenue and Art

- Termination of alternate tenant operations
- Reconstruction status of damaged/destroyed locations
- Resumption of service/operation of affected tenants
- Termination of alternate tenant operations
- Reconstruction status of damaged/destroyed concessions location
- Resumption of affected concessionaires
- Termination of alternate concessionaire operations
- Total number of disaster-affected stakeholders
- Monitor transition of employees and passengers through contingency busing operations

#### RFA: Business Operations

- Total number of disaster-affected contract services including facilities and equipment
- Include damage to systems and equipment caused by environmental impacts, such as, water damage and collection.
- Infrastructure and equipment associated with contract services that sustained minor or major damage, and/or have been closed (i.e., condemned).
- Best practice and altered procedure recommendations by affected contract services.
- Type, amount, and continued need of contract deviations.
- Return to standard contract agreements.
- Reconstruction status of damaged/destroyed technology infrastructure.
- Resumption of technology services or products for affected stakeholders.
- Termination of alternate technology services and products.

#### RFA: Communications

- Sentiment around coverage and level of requests
- Number of inquiries/questions/concerns decrease
- Change in sentiments with media stories/social posts
- Customer service requests and questions – less questions and complaints
- Assessing call volume and hours of operation
- Continued need for personnel resources

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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#### RFA: Operations

- Personal protection equipment inventory availability
- Shift from 24-hour safety presence to standard operations
- Increase in implementation of safety suggestions
- Decrease in safety consultations
- Systematic demobilization to standard contract security needs for airport operations
- Decreased response to security concerns
- Return impacted areas to its operational intent
- Resumption of security measures that were removed or altered during recovery efforts
- Resumption of standard procedures and access routes for employees and passengers
- Decrease in airfield areas used for purposes other than aircraft operations related to the event
- Airfield areas returned to service following recovery efforts
- Decrease in status updates of airfield closures associated with the recovery efforts
- Total number of disaster-affected stakeholders
- Number of businesses with minor or major damage or that are closed (i.e., condemned)
- Number of businesses opened vs closed
- Damage assessment information including minor, major, and destroyed
- Debris Management information including sites utilized for storage and removal
- Status of transportation reconstruction and improvement projects
- Operation status of public facilities
- Status of repairs to and/or reconstruction of facilities
- Number of public meetings and public forums
- Progress of cleanup activities and recovery projects
- Available TSA Resources for immediate use for screening purposes
- Status of first responder response plans
- Status of materials (e.g., stanchions, cones, temporary walls) being used for recovery efforts
- Current and proposed wayfinding plans associated with recovery
- Lists of currently restricted or prohibited areas and the groups in charge of their return to service
- Resumption of equipment, personnel, facilities to operational status
- Temporary closures of operational facilities/equipment to assist with recovery efforts

#### RFA: Preservations and Repairs

- The collection, compilation, and dissemination of damage assessment data to include internal, external (as able), assets that may be required for governmental reimbursement documentation
- Documentation of completed recovery efforts through assessment data collection (number and status of repairs and reconstruction to assets, floor planning, lifecycle progress through assessment collection, such as damaged to repaired, to returned to service)
- Photographs of damage, repairs, and in-progress quality control documentation (daily reports)
- Updated as-built drawings of major repairs
- Product data sheets for any non-standard material used for repairs
- Documentation of temporary debris management sites- opening, closing, remediation
- Removal of hazardous materials and waste
- Status of corrective actions including active and completed

## EMERGENCY MANAGEMENT

### Airport Disaster Recovery Planning Guide

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- Environmental impacts and mitigation actions
- Documentation of materials (debris) removed, including weights, types, methods
- Total number of resources deployed
- Improvement and system wide capabilities
- Restoration of utilities
- Progress of cleanup activities and recovery projects
- Total number of resources deployed
- Number of job workorders under parent workorder
- Progress of cleanup activities and recovery projects