CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Damage Assessment

Support Annex to the Emergency Operations Plan

June 2019

EXECUTIVE SUMMARY

The City of San José Emergency Operations Plan (EOP) provides an overview of the City's approach to managing emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to City departments, agencies, and community partners, and describes logistical support and the integration of assistance. The EOP also describes the role of the City of San José's Emergency Operations Center (EOC) and the coordination that occurs between the EOC, Department Operations Centers (DOCs), those conducting field-level activities, and external entities such as the Operational Area, community partners, and City residents and visitors. The EOP is a broad programmatic document applicable to all hazards or threats, and all the missions/functions the City may perform in response to or recovery from and incident.

To provide planning support to the EOP the City has developed Support Annexes for each of the critical functions the City must manage, coordinate, and/or perform following an emergency. A support annex is a function- or incident-specific application of the guidance, policies, and concepts defined in the EOP.

Specifically, this Damage Assessment Support Annex provides a strategic framework for coordinating activities required to successfully conduct safety and damage assessments following an incident that causes damage to public and private buildings, infrastructure, and systems. This support annex describes the basic organizational relationships to manage the City's damage assessment function, identifies roles and responsibilities of City departments and external entities, and outlines a timeline of activities associated with key damage assessment functions. Maintaining a damage assessment program is critical following an emergency to evaluate and document the type, extent, and cost of damages. The ability to efficiently gather accurate damage data contributes to emergency proclamations, cost-recovery, and the prioritization of resources. This Damage Assessment Support Annex provides the strategic foundational details of the City's damage assessment program.

While, several departments across the City have varying degrees of responsibility for supporting the overall damage assessment process and assessing damages to their infrastructure and property, the **Planning, Building, and Code Enforcement (PBCE)** Department is the designated lead for the City. As the lead, PBCE is responsible for coordinating all damage assessment activities and overseeing the overall damage assessment process. However, the Planning, Building, and Code Enforcement Department is not expected to conduct all assessments. The following City departments also have key roles in conducting damage assessments:

- Public Works Department
- Department of Transportation
- Parks, Recreation, and Neighborhood Services Department
- Environmental Services Department
- Fire Department
- Information Technology Department

Through the activation of the Planning, Building, and Code Enforcement DOC; other City Department DOCs; the City's EOC; and field-level incident command posts, the City will establish an organization to support the coordination of all damage assessment activities. Damage data/information will flow from the field through the appropriate DOCs to the EOC Operations Section, Damage Inspection Branch to the EOC Planning Section, Damage Data Collection Branch.

This Damage Assessment Support Annex represents the outcomes of an ongoing collaborative planning process, incorporating current guidance, policies, best practices, and stakeholder input. It provides a foundation for additional planning and the framework to support the development of a full operational Safety and Damage Assessment Plan.

Some concepts herein are inherently interrelated with other functional annexes that cover other aspects of emergency management that may take place concurrently with damage assessment activities, such as the **Recovery Support Annex**, which provides a framework for Citywide recovery.

This Damage Assessment Support Annex is applicable to all-hazards.

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STATEMENT OF INTENT

Disclaimer: This Damage Assessment Support Annex is advisory.

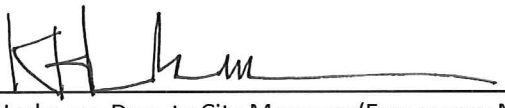
This Damage Assessment Support Annex is meant to provide an all-hazards strategic framework to assist the City of San José with damage assessment planning, but it is not meant to fulfill all legal requirements or duties. Nothing in this document alters or impedes the ability of federal, state, or local chief executives, their government agencies, or their internal organizations to carry out their specific authorities or perform their responsibilities under all applicable laws, executive orders, and directives. This support annex is consistent with the City of San José Emergency Operations Plan and is not intended to alter the existing authorities of individual municipal or county agencies defined within it and does not convey new authorities upon any local, state, or federal official.

APPROVAL & ENDORSEMENT

This Damage Assessment Support Annex has been approved and endorsed by the City of San José departments with responsibilities described herein. It supersedes all previous versions.

Signed:

David Sykes, City Manager — 12/6/19 — Date Signed



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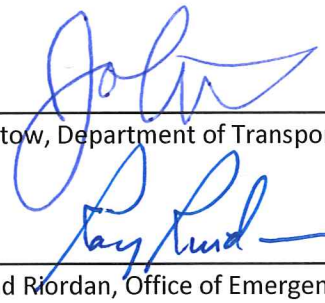

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INTRODUCTION

Disaster events such as floods, wildfires, earthquakes, hazardous materials releases, terrorism, and other natural and technological emergencies have the potential to cause extensive damage to public and private property. Understanding the extent and location of that damage provides a snapshot of the situation the City faces. Damage assessment operations are critical activities that support efforts to develop situational awareness, identify immediate needs and threats, and allocate short and long-term resources, establish priorities for response and recovery, and also help to identify mitigation opportunities for the future. The information produced through damage assessment is evaluated to determine the needs of the survivors and the community as a whole, and can set the tone for the entire response operation and drive the recovery process.

Damage assessment information also forms the basis of requests for additional support from regional, state, or federal sources, in the form of mutual aid and eligibility for assistance programs. When local capabilities are overwhelmed due to the impacts of an emergency, the City's damage assessment efforts support the processes required to obtain an emergency proclamation from the governor or major disaster declaration from the President that would allow the City to access state and federal resources and establish eligibility for a variety of assistance programs.

As an emergency response function, "damage assessment" can encompass several processes that collect different layers of information:

- **Situation reporting**: First reports of damage which may come from first responders in the field, media reports, the public, and other sources, and be of varying detail and quality. This information is used to develop a general situational awareness of damage.
- **Rapid and initial damage assessments**: An early, systematic approach that involves the coordination of damage assessment teams that consist mainly of employees from City departments. Depending on the scope and nature of the emergency, these damage assessments may consist of visual inspections or windshield surveys and drive-by and/or aerial assessments.
- **Safety Assessments**: The evaluation of facilities following a disaster to determine the condition of buildings and infrastructure for use and occupancy. These assessments are not intended to identify or quantify damage, but to categorize facilities as to their safety. Participants are qualified inspectors using standard Applied Technology Council (ATC) guidance.
- **Estimated monetary damages**: Damage ratings, identified through initial assessments, can be used to develop estimates of financial impacts. Eligibility for state and federal programs is based on financial thresholds, so it is important to develop accurate and justifiable estimates to support declarations. This information is typically reported on state Initial Damage Estimate (IDE) forms (see Appendix D: Santa Clara County Operational Area Initial Damage Estimate (IDE) Form) and may provide the basis for subsequent state and federal Preliminary Damage Assessment (PDA) forms.

Often these damage assessment activities unfold in overlapping or simultaneous processes. This support annex will identify specific damage assessment functions as applicable

A. Purpose

The Damage Assessment Support Annex describes the overall process of assessing post-disaster damage to:

- Public and private property
- Infrastructure
- Environment

This support annex describes the basic organization of the City's damage assessment functions in the EOC and DOCs, identifies roles and responsibilities of City departments and external entities, and outlines a timeline of activities associated with key damage assessment functions.

The Damage Assessment Support Annex augments the City's Emergency Operations Plan (EOP), existing department plans, and Emergency Operations Center (EOC) operating procedures. This support annex establishes a framework for coordinating the activities related to damage assessment but it is not intended to be an operational guide. Specific operating procedures, protocols, and tactical actions taken to manage damage assessment must be addressed in operational documents maintained by the participating organizations. This support annex is designed to assist decision makers, coordinators, planners, and department representatives involved in defining and implementing key damage assessment activities in accordance with applicable hazards and local conditions.

B. Assumptions

The City should review the following considerations when making decisions about damage assessment.

- The City of San José is susceptible to hazardous events resulting in extensive property and infrastructure damage from earthquakes, severe storms, landslides, floods, and fires.
- Local damage assessment must be rapid, detailed, and accurate to provide for the protection of life, property, and the environment and to avoid delays in assistance.
- There will be several different actors interested in receiving and reviewing damage assessment information.
- Damage assessment information is collected and used for different programs in different ways.
- The City's building stock includes structures that are vulnerable to collapse and major destruction resulting from a major earthquake, including unreinforced masonry and non-ductile concrete buildings.
- Some damage, particularly damage stemming from a major earthquake, will not be immediately obvious or visible. Underlying damage to some buildings and infrastructure can only be assessed through the services of technical specialists.
- Plans are in place or should be developed, for each department managing City infrastructure to assess routine to moderate damages to their facilities and resources.
- A large-scale incident with regional impacts will deplete the number of qualified inspectors available to conduct safety assessment activities necessitating assistance from out-of-the-area.
- Damage assessment and safety inspections could take place concurrently with, and in support of, other response and recovery activities.
- Damage assessment and safety inspection activities will prioritize critical infrastructure, and whenever possible, work within sectors/geographic areas utilized for debris management activities.

- Damage assessment information is required as a part of the declaration process for both state and federal disaster assistance. That process includes the following steps:
    - City provides Initial Damage Estimate (IDE) information to the Santa Clara County Operational Area, estimating monetary damages. If seeking state and/or federal Public Assistance, the assessment includes information on damages to infrastructure, public facilities, and other essential facilities. It will also include estimated costs for debris removal, emergency work, and emergency protective measures. If requesting Individual Assistance, the initial damage assessment must also include information about damages to private residences and businesses.
    - The Initial Damage Estimate (IDE) form also summarizes assessment information necessary for triggering other assistance programs offered by the U.S. Small Business Administration (SBA), the U.S. Department of Agriculture (USDA), and the Federal Highways Administration (FHWA).
    - Santa Clara County submits an Initial Damage Estimate (IDE) to the California Governor's Office of Emergency Services that summarizes all reported damages occurring within the Operational Area.
    - If Santa Clara County's Initial Damage Estimate (IDE) meets monetary thresholds for per-capita damages as outlined in 44 Code of Federal Regulations (CFR) 206.48, the state and FEMA initiate a joint Preliminary Damage Assessment (PDA).
    - The City and County both participate in the joint Preliminary Damage Assessment (PDA), in which state and federal agency staff visit damaged areas and independently assess damages.
    - Following a presidential declaration that includes authorization for certain programs, eligible entities apply directly to FEMA, or other agencies as required, for assistance.
- Critical infrastructure are structures and facilities that provide essential life safety services to the community, in addition to supporting public safety and disaster response and recovery activities. Examples of critical infrastructure include EOCs, public safety facilities (i.e., corrections facilities, law enforcement and fire facilities), hospitals and critical care facilities, bridges and roads on emergency transportation routes, water and wastewater infrastructure, utilities, schools, and shelters. These facilities must be pre-identified by the County and by City departments (for their own facilities) and by the Planning, Building, and Code Enforcement Department (for other facilities).
- The City will need to carry out an initial damage assessment for resources within the City, and detailed safety inspections of City resources and other critical resources.

C. General Considerations

In addition to the planning assumptions identified above, the following considerations provide an overview of potential post-disaster damage assessment challenges:

- Volunteers including those from the City's Community Emergency Response Teams (CERT) may be trained prior to an emergency and activated to support damage assessment.
- In many cases, City staff performing damage assessments may be the first post-disaster contact that members of the community have with a local government representative. There should be

close coordination with the Joint Information Center (JIC) or the Emergency Public Information Officer to ensure proper messaging. See the Crisis Communications Plan for more information.

- Pre-incident or task-specific just-in-time-training for non-essential city employees and spontaneous volunteers may be necessary.
- Close coordination with Santa Clara County will be essential as damage information moves from local jurisdictions to the Operational Area to the state; a shared operating picture will also be vital to coordinate other activities such as medical response.
- The City will use forms for safety assessment provided by Applied Technology Council (ATC) and Cal OES.
- Mobile technologies (e.g., smart phone apps and tablets) will be useful in assessment of damages.
- Communication systems may be damaged or inoperative, so electronic data collection processes should have a manual back up.
- Contract service providers that provide services identified in this plan will be encouraged to pre-qualify to contract with the City.
- GIS can be used for managing and monitoring field assessment activity, identifying physical, economic, and social disaster impacts, and compiling damage cost information.

D. Considerations for Individuals with Access and Functional Needs[1]

The City of San José is committed to inclusivity and providing services to those with disabilities and those with access and functional needs, including limited English proficiency. Before, during, and after an incident, individuals with disabilities and those with access and functional needs can be assisted to maintain their health, safety, and independence utilizing the "C-MIST"[2] framework to identify their needs. C-MIST is the acronym for **C**ommunication; **M**aintaining health; **I**ndependence; **S**afety, support services, and self-determination; and **T**ransportation.

Physical and programmatic access, auxiliary aids and services, integration, and effective communication are often enough to enable individuals to maintain their health, safety, and independence in an emergency or disaster situation. When basic access is not enough, individuals with access and functional needs may have additional requirements in one or more of the following functional areas to participate in and benefit from emergency planning, programs, and services.

Elements of the C-MIST framework are described below to provide context for potential additional requirements:

Communication: Often individuals will require auxiliary aids and services or language access services to initiate effective communication and to receive and respond to information using methods that facilitate effective communication. Individuals may not be able to hear verbal announcements or alerts, see directional signs, communicate their circumstances to emergency responders or case managers, or understand how to get assistance due to hearing, vision, cognitive, behavioral, mental health, or

[1] Access and functional needs are defined by Cal OES as individuals who are or have: Physical, developmental or intellectual disabilities; Chronic conditions or injuries; Limited English proficiency; Older adults; Children; Low income, homeless and/or transportation disadvantaged (i.e., dependent on public transit); and pregnant women

[2] https://emilms.fema.gov/IS0368/DIS01summary.htm

intellectual disabilities, and/or limited English proficiency. In addition to auxiliary aids and services, the use of plain language benefits most people.

Applicability to Safety Assessments and Damage Inspections:

Field personnel conducting safety assessments and damage inspections must determine, on a building-by-building and incident-by-incident basis, the communication requirements for a building owner. If it is determined that communication assistance is needed to effectively relay information to the building owner, the assessor should request the communication resource from their supervisor. If the state of the building is clearly unsafe, the assessor should use any means necessary to communicate the hazard to the building owner, until communication assistance arrives. In a small incident, the field personnel may be able to remain at the site until the communication assistance arrives. In a large incident, many buildings may be impacted, and field personnel may be assigned to conduct multiple safety assessments and damage inspections. For these incidents, field personnel can relay communication assistance needs to their supervisor, who will then communicate with the EOC. This will allow field personnel to complete their other assignments, rather than having them wait at a single site for the communications assistance to arrive. See the Crisis Communications Plan for more information.

Maintaining Health: While most individuals with access and functional needs do not have acute medical needs requiring the support of trained medical professionals, many will require assistance to maintain health and minimize preventable medical conditions. Access to equipment, medication, supplies, bathroom facilities, nutrition, hydration, adequate rest, personal assistance, etc. can make the difference between maintaining health and decompensation, requiring medical care. Additionally, keeping individuals with access and functional needs with their families, neighbors, and others who can provide assistance will reduce the need for first responders and medical professionals at a time of scarce resources.

Minority and low-income communities may have severely limited access to health and medical services. Ensuring these communities' access and functional needs are met is critical.

Additionally, individuals, including those who are generally self-sufficient and those who have adequate support from personal assistants, family, or friends may need assistance with: managing unstable, terminal, or contagious conditions that require observation and ongoing treatment; managing intravenous therapy, tube feeding, and vital signs; receiving dialysis, oxygen, and suction administration; managing wounds; and operating power-dependent equipment to sustain life. These individuals may require support of trained medical professionals.

Applicability to Safety Assessments and Damage Inspections:

If during an assessment/inspection, an assessor discovers building residents with health needs, the assessor should communicate that need to the Incident Commander or supervisor.

Independence: For individuals with access and functional needs, providing physical/architectural, programmatic, or communications access will allow them to maintain independence in an environment outside their home. For individuals requiring assistance to maintain independence in their daily activities, this assistance may be unavailable during an emergency or a disaster. Such assistance may include durable medical equipment or other assistive devices (wheelchairs, walkers, scooters, communication devices, transfer equipment, etc.), service animals, and/or personal assistance service providers or caregivers. Supplying needed support to these individuals will enable them to maintain or quickly restore their pre-disaster level of independence.

Applicability to Safety Assessments and Damage Inspection:

When conducting a safety assessment and/or damage inspection, an assessor may determine that while a building might be safe to occupy, the specific damage observed may limit a person's independence. In these cases, the situation should be reported to the Incident Commander or supervisor so that the damage that limits independence can be resolved or that the individual's needs are addressed through alternative means.

Safety, Support Services, and Self-Determination: Before, during, and after an emergency, individuals may lose the support of personal assistant services, family, or friends; may find it difficult to cope in a new environment (particularly if they have autism, dementia, Alzheimer's, behavioral, or mental health conditions such as schizophrenia or intense anxiety) or may have challenges accessing programs and services. If separated from their caregivers, young children may be unable to identify themselves; and when in danger, they may lack the cognitive ability to assess the situation and react appropriately. All adults, including adults with access and functional needs, have the right to self-determine the amount, kind, and duration of assistance they require.

Transportation: Individuals who cannot drive or who do not have a vehicle and individuals who may need assistance in evacuating when roads are blocked or public transportation is not operating may require accessible transportation assistance for successful evacuation. Access to transportation assistance needs to be available to those who rely heavily on public transit, including but not limited to low-income and minority communities. This support may include accessible vehicles (e.g., lift-equipped or vehicles suitable for transporting individuals who use oxygen) or information in alternate formats or other languages about how and where to access mass transportation during an evacuation.

Multi-Lingual Needs

As the City is engaged in safety assessment and damage inspection operations, the City will consider the following multi-lingual needs:

- Ensure public information regarding safety assessments is provided to each community in their language as well as English.
- Ensure safety assessment placards are available for all languages reflected in the City.
- Ensure safety evaluators have been briefed on the language demographics for the areas they are inspecting so that the proper language placards are left on inspected buildings.
- Ensure field-interpreters are available to communicate with property owners as assessments are being conducted.

CONCEPT OF OPERATIONS

The Concept of Operations presents an overall framework for managing the damage assessment process, including a description of the organization and a phased timing of damage assessment activities.

A. General

Damage assessment activities shall reflect the City's operational priorities: protecting human life, safety, and health; protecting public property and the environment; protecting private property; restoring utilities and essential government functions; and supporting coordination among all levels of government.

B. Organization

- Following a large-scale event that necessitates a City-led damage assessment process, the City will activate its Emergency Operations Center (EOC) and departments involved in damage assessment will activate Department Operations Centers (DOCs) to support information collection, analysis, and sharing and the coordination of field activities.
- Several departments across the City have varying degrees of responsibility for supporting the overall damage assessment process and assessing damages to their infrastructure and property.
    - **Planning, Building, and Code Enforcement (PBCE)** is the lead department responsible for coordinating those activities and overseeing the overall damage assessment process. The department delegates, collects, and distributes information, but is not expected to conduct all assessments. In addition to activating a DOC to coordinate safety assessments and damage inspections for private property in the City. Planning, Building, and Code Enforcement will also provide staff to the EOC's Damage Inspection Branch in the Operations Section and the Damage Data Collection Branch in the Planning Section.
    - **Public Works (PW)** is the lead department responsible for conducting assessments of City of San José owned facilities in coordination with the specific city department responsible for operating and maintaining those facilities. For example, the **Environmental Services Department** will operate DOCs specific to the Regional Wastewater Facility and San José Municipal Water System; the **Department of Transportation** operates and maintains the City's roads, bridges, streetlight and traffic systems, and sanitary and stormwater collection systems (including pipelines and pump stations); the **Parks, Recreation, and Neighborhood Services Department** operates and maintains the City's parks, trails, and community centers; and the **Airport Department** operates and maintains the Norman Y. Mineta San Jose International Airport.
    - The EOC's Damage Inspection Branch will coordinate the collection of safety assessment and damage inspection information from all sources, coordinate inspections being conducted by other departments, and distribute information appropriately.
- The activities associated with damage assessment happen concurrently and in overlapping phases. Damage assessment can be summarized into three main interconnected phases of activity:
    - **Rapid and Initial Damage Assessment**: Rapid damage assessment covers preliminary situation status reporting, prioritization of areas for further damage assessment, inspections of critical infrastructure based on reports from field units or other sources. Initial Damage Assessment refers to the coordinated process of estimating damage to

public and private property, assembling other estimated costs, compiling the information and submitting an Initial Damage Estimate (IDE) to Santa Clara County Operational Area (required to evaluate eligibility for state and federal assistance).

- **Safety Assessments**: The evaluation of facilities following a disaster to determine the condition of buildings and infrastructure for use and occupancy. These assessments are not intended to identify costs or quantify damage for assistance program purposes, but are intended to categorize facilities as whether or not they are safe to occupy. Participants are qualified inspectors using standard Applied Technology Council (ATC) guidance.
- **Joint Preliminary Damage Assessment (PDA)**: site visits with state and federal officials to support requests for state and/or federal assistance.

C. Timing of Critical Activities

The **Planning, Building, and Code Enforcement Department** is the lead department for the coordination of damage assessment activities and, as such is responsible for coordinating and/or delegating the preparedness, response, and recovery activities associated with damage assessment.

The activities identified below in **Table 2** do not constitute a comprehensive list of all possible actions that may be taken, but rather represent the most critical activities to be accomplished based on best practices, research, and the City's approach to conducting damage and safety assessments. **Please note:** the activities are not ranked in order of priority. They are listed in the order that they are most likely to occur. However, many activities may take place simultaneously or in a different order, depending on incident requirements.

Activities listed in **Table 2** are organized according to the phases shown in **Table 1**, which are described in detail in the EOP in **Section 1.3.1, Phases of Emergency Management**.

Table 1. Phases of Emergency Management

Phase	Approximate Timeline
Phase 1: Preparedness	Pre-incident
Phase 2: Initial Response	Within first 72 hours of an incident
Phase 3: Continued Response	72 hours to 14 days after an incident
Phase 4: Short-Term Recovery	Two weeks to two months after an incident
Phase 5: Long-Term Recovery	Two months to a year or more after an incident

Table 2: Damage Assessment Activity Timeline

Phase	Activity	Responsibility	Status
Phase 1: Preparedness	Develop plans, procedures, guidelines, and policies for coordinating, managing, and employing safety and damage assessment activities effectively under all hazards and conditions.	Office of Emergency Management	

Phase	Activity	Responsibility	Status
	Identify personnel and maintain a roster of staff who will likely conduct windshield surveys and/or safety and damage assessments.	Departments of Fire; Planning, Buildings, and Code Enforcement; Public Works; Environmental Services; Transportation; Information Technology; Parks, Recreation, and Neighborhood Services; Airport	
	Develop support contracts to conduct specialized assessments, as needed.	Office of Emergency Management; Planning, Building, and Code Enforcement Department; Finance Department	
	Determine points of contact between City Departments and other agencies engaged in damage and safety assessment.	Office of Emergency Management	
	Ensure that personnel likely to engage in safety and damage assessment operations have the certifications and training needed to perform their duties.	Departments of Planning, Buildings, and Code Enforcement; Public Works; Environmental Services; Transportation; Fire	
	Develop and maintain a list of resources that will most likely be needed to conduct damage assessment activities effectively (including but not limited to information collection forms, software, and other information technology resources).	Office of Emergency Management Departments of Planning, Building, and Code Enforcement; Public Works	
	Evaluate the need to develop partnerships or contracts with local structural engineering firms to perform specialized facility assessments, provide technical advice, and/or provide damage and safety information collection and management	Departments of Planning, Building, and Code Enforcement; Public Works, Environmental	

Phase	Activity	Responsibility	Status
	tools such as online- and offline-capable GIS products.	Services; Transportation	
	Ensure that internal programs and systems are in place to process the inflow and analysis of safety and damage assessment information.	Office of Emergency Management	
	Review the **Recovery Support Annex** or **Recovery Plan** to understand how safety and damage assessment efforts will transition into the recovery phase.	Department of Planning, Building, and Code Enforcement Department; Office of Emergency Management	
	Provide opportunities for City staff and qualified volunteers to attend the California Governor's Office of Emergency Services Safety Assessment Program Evaluator, Coordinator, and Train-the-Trainer classes.	Office of Emergency Management	
	Incorporate damage assessment scenarios into the City exercise program to provide opportunities for damage assessment personnel to become familiar with damage assessment processes, methods, forms, and roles and responsibilities.	Office of Emergency Management	
	Establish and develop GIS resources to identify and develop damage assessment zones to facilitate the rapid deployment of damage assessment resources after a disaster incident. Ensure capability to display GIS maps on EOC displays.	Department of Planning, Buildings, and Code Enforcement Department; Office of Emergency Management	
	Evaluate the value of using drones to survey damage. Train personnel on the use of drones and uploading videos. Periodically train personnel and test drone functionality.	Departments of Planning, Buildings, and Code Enforcement; Public Works; Transportation; Fire	
Phase 2: **Initial Response**	**Step 1: Gather information**		
	Verify availability of personnel to staff Public Works; Planning, Building, and Code Enforcement; Transportation; Environmental Services; and other DOCs, as needed, as well as the EOC Operation	DOC Directors, EOC Operations Section Coordinator	

Phase	Activity	Responsibility	Status
	Section's Damage Inspection Branch, field units, and other positions as needed.		
	Select damage assessment methods to employ (self-reporting, aerial, windshield surveys, door-to-door and site assessments, Geospatial and GIS analysis, and/or modeling).	EOC Operations Section's Damage Inspection Branch	
	Establish communication between City departments and other agencies engaged in damage and safety assessment.	EOC Operations Section's Damage Inspection Branch	
	Activate platform for mapping data in a centralized system available to DOCs responsible for damage assessment and to EOC.	EOC Planning Section's Innovation Branch Director, GIS Unit	
	Identify affected areas through reports from dispatched emergency units and others. Use reports to create a cursory damage footprint using maps or computer modeling software.	EOC Operations Section's Damage Inspection Branch; EOC Planning Section's Damage Data Collection Branch, GIS Unit	
	Analyze available information to identify imminent hazards and barriers to conducting safety and damage assessments.	Field Incident Commander; EOC Planning Section's Situation Status Branch Director	
	Develop strategies for initial response, including anticipated needs, decision points, challenges, and the mobilization of resources and personnel.	EOC Operations Section; EOC Planning Section's Action Planning Branch	
	Request additional Safety Assessment Program Evaluators, if necessary. Safety inspections will be performed using the methods and procedures defined in Applied Technology Council ATC-20 (Post-earthquake Safety Evaluation of Buildings) and Applied Technology Council ATC-45 (Safety Evaluations of Buildings AFTER Windstorms and Floods). Inspections are intended to support rapid decision-making regarding the continued use and occupancy of damaged buildings. Buildings are	EOC Logistics Section's Personnel Branch	

Phase	Activity	Responsibility	Status
	posted with colored placards (see Appendix A: Acronyms and Glossary)		
	Test communication networks and technologies to determine which are available and effective.	EOC Logistics Section's IT Support Branch	
	Step 2: Coordinate initial response		
	Establish communication with available personnel and assign roles and schedules.	All branch and unit coordinators	
	Define flow of information and ensure that field units have access to correct forms, checklists, and procedures.	DOC Directors; EOC Operations Section's Damage Inspection Branch	
	Using available information about impact of incident, develop prioritized order of assessments (giving precedence to critical facilities and infrastructure, and areas that Public Works has previously identified as "hotspots", if applicable).	EOC Operations Section	
	Coordinate with Operations Section's Branches to identify infrastructure and public facility needs in affected areas to prioritize safety assessments.	EOC Operations Section's Damage Inspection Branch	
	Coordinate with Operational Area as needed.	Not position-specific	
	Step 3: Conduct initial damage assessment		
	As field units are developed and methods selected, deploy personnel to conduct damage assessments based on available information.	DOCs for the Departments of Planning, Buildings, and Code Enforcement; Public Works Support personnel from the Departments of Environmental Services; Transportation; Parks, Recreation, and Neighborhood Services; Information Technology; Airport	

Phase	Activity	Responsibility	Status
	Identify imminent hazards that may impact response operations and report to the EOC Planning Section.	Field units, through DOCs, and then communicated through EOC Operations Section	
	The Department of Public Works will inspect buildings that the Department of Parks, Recreation, and Neighborhood Services has pre-identified as potential sites for emergency shelters or evacuation centers during the disaster. Coordinate with Public Works' American Disabilities Act Coordinator to ensure shelters will be functional needs accessible. Note: Having initial safety assessments done early on may help expedite the decision on where shelters or evacuation centers should open.	DOC field-level personnel for Departments of Public Works and Parks, Recreation, and Neighborhood Services	
	Conduct damage assessment activities in support of the Initial Damage Estimate (IDE) process.	DOC field-level personnel for the Departments of Planning, Buildings, and Code Enforcement; Public Works, with support from various Departments' personnel	
	Conduct damage assessments on all city infrastructure and facilities, utilities, telecommunication systems, traffic systems, and roadways.	DOC field-level personnel for the Department of Public Works, with support from various Departments' personnel	
	As rapid and initial damage assessments are completed, field units provide completed forms to their respective DOCs, which compile and send the information to the EOC's Damage Inspection Branch.	DOCs for Departments of Planning, Buildings, and Code Enforcement; Public Works	
	Coordinate safety assessment activities with volunteers from the Safety Assessment Program.	DOCs for Departments of Planning, Buildings,	

Phase	Activity	Responsibility	Status
		and Code Enforcement; Public Works	
	Compile information and submit required Initial Damage Estimate (IDE) forms to Santa Clara County for submission to the California Governor's Office of Emergency Services as part of the state's proclamation process.	EOC Planning Section's Damage Data Collection Branch	
	Step 4: Provide internal resources and request external resources, as needed		
	Evaluate need for additional resources (from Safety Assessment Program, Operational Area, Mutual Aid).	EOC Operations Section's Damage Inspection Branch	
	Through the EOC Logistics Section, submit request to Operational Area for additional damage and/or safety assessment resources if necessary.	EOC Logistics Section's Personnel Branch	
	Step 5: Share information with public		
	Coordinate with the Emergency Public Information Branch to provide information to the public, regarding street closures, infrastructure damage or failures, and other safety and damage assessment-related information.	EOC Planning Section's Damage Data Collection Branch	
Phase 3: **Continued Response**	**Step 6: Continue to coordinate, monitor, track, and report on safety and damage assessment activities**		
	Continue to conduct damage assessments on all city infrastructure and facilities.	DOC field-level personnel for the Department of Planning, Buildings, and Code Enforcement; Public Works, with support from various Departments' personnel	
	Continue to coordinate building inspection and safety assessments with Safety Assessment Program resources.	DOC field-level personnel for the Departments of Planning, Buildings, and Code Enforcement; Public Works	

Phase	Activity	Responsibility	Status
	Continue to assess priorities and strategies to meet most critical needs.	EOC Operations Section	
	Activate support contracts to conduct specialized assessments, as needed.	EOC Logistics Section's Procurement/ Purchasing Branch	
	Continue to track and compile damage assessment information and supporting documentation.	EOC Planning Section's Damage Data Collection Branch	
	Submit updated aggregated damage assessment information and supporting documentation to Operational Area, as needed.	EOC Planning Section	
	Continue to provide updates.	EOC Operations Section's Damage Inspection Branch	
	Coordinate with Operational Area, Red Cross, and state and federal agencies on activities, as necessary, to support Preliminary Damage Assessment (PDA) process.	EOC Recovery Section	
Phase 4: **Short-Term Recovery**	Develop recommendations for corrective actions or after action reports, as needed.	All personnel	
	Continue to coordinate with the Operational Area, Red Cross, and state and federal agencies on damage assessment activities as necessary to support Preliminary Damage Assessment process. Additional information can be found in the **Recovery Support Annex** or **Recovery Plan**.	EOC Recovery Section	
	Provide staff to accompany state/federal Preliminary Damage Assessment teams to identify disaster-related damages and advocate for community needs	Departments of Planning, Buildings, and Code Enforcement Department, Public Works; Environmental Services; Transportation; Parks, Recreation and Neighborhood Services; Information Technology; Airport	

Phase	Activity	Responsibility	Status
Phase 5: **Long-Term Recovery**	Ensure damage inspection information is provided to those responsible for developing project worksheets to assist in the scoping of required repairs, restoration, and/or construction. Additional information can be found in the **Recovery Support Annex** or **Recovery Plan**.	Recovery Section Coordinator	

ASSIGNMENT OF RESPONSIBILITIES

This section outlines roles and responsibilities specific to damage inspections and safety assessments by City departments, in addition to the roles outlined in the Emergency Operations Plan (EOP). Roles for external entities are also identified. City departments and external partners may also make or be called upon to contribute more than those activities described below.

In addition to continuing to provide their own essential services, responding departments will also be expected to perform the activities described below during an emergency or disaster. The execution of safety and damage assessments is done at the field-level, supported by Department Operation Centers (DOCs), and resource needs and information management is coordinated in the EOC. Departments are expected to develop supporting plans and procedures to help them meet the roles and responsibilities outlined below.

A. City Department Responsibilities

Planning, Building, and Code Enforcement (PBCE) will:

- Staff the EOC Operation Section's Damage Inspection Branch and the EOC Planning Section's Damage Data Collection Branch.
- Serve as the lead coordinating department for the City's overall damage assessment effort.
- Lead post-disaster damage assessment efforts for private property, buildings, and facilities.
- Conduct safety assessments, damage inspections, tagging, and needs assessments for private property, buildings, and facilities.
- Coordinate with support agencies to ensure that potential safety assessors and damage inspectors have received the training they need (Safety Assessment Program training, trained on protocols for information collection, communication, and assessment methods; GIS, HAZUS, any other specialized tools, as needed).
- Coordinate with the Department of Public Works and external agencies to ensure damage assessments are performed on public facilities and infrastructure.
- Determine initial resource needs to conduct damage inspections and safety assessments.
- Provide personnel for damage assessment field units.
- Provide qualified personnel for safety assessment teams.
- In coordination with the Department of Public Works and other external support agencies, develop and implement a plan for large-scale building inspection efforts, including the use of contractors and mutual aid building inspectors from other jurisdictions.
- Monitor "early re-entry" programs (whereby private entities conduct evaluations to private property) to ensure compliance with safety procedures.
- In coordination with other departments, provide an internal inventory of available supplies and equipment available for damage assessment efforts.
- Coordinate with support agencies to ensure maps being used for situational awareness in the EOC are up-to-date.
- Coordinate with support agencies to ensure that list of City's critical infrastructure and key facilities is up-to-date.

Department of Public Works (DPW) will:

- Staff the EOC Operations Section's Public Works Branch.
- Maintain a list of City-owned infrastructure and facilities likely requiring immediate inspection or engineering assessment due to criticality of use, vulnerability to damage, or likely threat to life safety.
- In coordination with other departments, perform reconnaissance of affected areas to determine the extent of damage and report the findings to the EOC.
- In coordination with Planning, Building, and Code Enforcement and other departments, determine initial resource needs to conduct damage assessments and safety inspections to City properties, buildings, and facilities.
- Provide personnel for damage assessment field units, as requested.
- Obtain initial damage assessment information for all City properties, buildings, and facilities from field units, in coordination with appropriate personnel from each facility's operating and maintaining City Department. Support the use of damage assessment forms for collecting the results of assessments of public facilities
- Coordinate and conduct rapid safety inspection of potential mass care and shelter sites identified by the EOC Operations Section's Mass Care Branch.
- Conduct safety inspections, damage assessments, tagging, and needs assessments to City properties, buildings, and facilities in collaboration with other departments.
- Conduct damage assessment of the City's radio network.
- Coordinate with utility providers (e.g., Pacific Gas & Electric), to collect damage assessment information.
- Coordinate and conduct damage assessment of City's ~~XXX~~ pump stations in coordination with the Department of Transportation
- Procure/activate contracts to assist with emergency inspection of sanitary sewer and stormwater collection systems, as needed and in coordination with the Department of Transportation
- Procure/activate contracts or use force account labor to conduct short-term or emergency repairs to support the resumption of normal municipal activities in coordination with each facility's operating and maintaining department in compliance with disaster cost recovery program procedures and eligibility standards.
- Procure/activate contracts or coordinate and deploy mutual aid resources to offer technical assistance and specialized assessments of City facilities, in coordination with each facility's operating and maintaining department.
- If activated, initiate all requests for engineers and inspectors through the Public Works DOC.
- If activated, the Public Works DOC Planning Section will compile and aggregate rapid and initial damage assessments from field units and send to the EOC Planning Section's Damage Data Collection Branch to coordinate resource requests.
- If activated, the Public Works DOC Planning Section will update and provide information to the EOC Planning section's Damage Data Collection Branch during every operational period.
- In coordination with other departments, provide an internal inventory of available supplies and equipment available for damage assessment efforts.

Department of Transportation (DOT) will:

- Staff the EOC Operations Section's Transportation Branch.
- Maintain a list of transportation infrastructure requiring immediate inspection or engineering assessment due to criticality of use, vulnerability to damage, or likely threat to life safety.
- In coordination with the Public Works Department, participate in conducting damage assessments for infrastructure operated and maintained by the Department of Transportation, to include:
    - City's roads, bridges, traffic signals, streetlights, signs, crosswalks, bike lanes, pavement markings, curbs, cub ramps, sidewalks
    - Street trees and landscaping
    - Public parking lots and garages
    - City's sanitary sewer and stormwater collection systems
    - City's ~~XXX~~ pump stations
- Provide personnel for damage assessment field units to assess infrastructure operated and maintained by Department of Transportation.
- Determine initial resource needs to conduct damage assessments to transportation infrastructure, including need for structural engineers, specialized assessors, or technical assistance.
- Conduct short-term or emergency repairs to support the resumption of normal municipal activities or coordinate with the Department of Public Works to procure contracts as needed in compliance with disaster cost recovery program procedures and eligibility standard.
- Coordinate with Public Works Department, as needed, to design and construct permanent repairs to affected infrastructure.
- Document all efforts to clear or remove debris from roadway
- If activated, initiate all requests for engineers and inspectors through the Department of Transportation DOC Logistics Section
- If activated, the Department of Transportation DOC Planning Section will update and provide information to the EOC during every operational period
- In coordination with other departments, provide an internal inventory of available supplies and equipment available for damage assessment efforts

Office of Emergency Management (OEM) will:

- Coordinate with support agencies to compile and submit damage assessment information to support proclamation and declaration processes.
- Activate the EOC and ensure essential positions are staffed
- Provide strategic guidance and training to support agencies on the programmatic issues informing damage assessment activities, short-term repairs, and emergency work
- If requested by a department conducting non-technical damage assessment activities, activate Community Emergency Response Team (CERT) volunteers through the Operations Section, CERT Branch to provide support.
- Act as a point of coordination for state and federal agencies to City departments supporting all aspects of state and federal Preliminary Damage Assessments (PDAs) and similar activities conducted for programmatic purposes

Information Technology Department (ITD) will:

- Staff the EOC Logistics Section's Information Technology Support Branch.
- Ensure the proper software and operators are available to provide information technology support for key damage assessment activities, including GIS, WebEOC, information collection tools for field units, etc. , as requested.
- Test and determine communication capabilities between field units, DOCs, and EOC.
- Determine initial resource needs, such as computers, phones, wireless communication devices, plan copies, and other reference documents in coordination with PBCE, and other departments conducting damage assessments.
- Continue to monitor status of support tools, including radios, cell phones, computers, software, and city network.
- Maintain a list of technology infrastructure requiring immediate inspection due to criticality of use, vulnerability to damage, etc.
- In coordination with the Public Works Department, conduct damage assessment activities for communication systems used by City departments including:
    - Fiber optics network
    - Internet network
    - Public Safety Answering Point (911 system)
- Coordinate with utility providers to collect damage assessment information for private communications systems.
- In coordination with other departments, provide an internal inventory of available supplies and equipment available for damage assessment efforts.

Fire Department will:

- Staff EOC Operations Section's Fire and Rescue Branch.
- Collect and report initial damage assessment information from field units.
- Conduct windshield surveys, as requested.
- Coordinate and conduct damage assessments and safety inspections for fire or hazardous material incidents.
- Coordinate with support agencies and HazMat team to identify high-risk facilities prior to the disaster.
- Report to EOC about conditions that would make it unsafe for field units to conduct damage assessments.

Environmental Services Department (ESD) will:

- Staff EOC Operations Section's Environmental Services Branch.
- Maintain a list of Environmental Services Department infrastructure requiring immediate inspection or engineering assessment due to criticality of use, vulnerability to damage, or likely threat to life safety or provision of essential services.
- Determine initial resource needs to conduct damage assessments to Environmental Services Department infrastructure, including need for structural engineers, specialized assessors, or technical assistance.
- In coordination with the Public Works Department, participate in conducting damage

assessments of the Regional Wastewater Facility and San José Municipal Water system.

- In coordination with other departments, provide an internal inventory of available supplies and equipment available for damage assessment efforts.
- Conduct short-term or emergency repairs to support the resumption of ESD infrastructure or coordinate with the Public Works Department to procure contracts as needed, in compliance with disaster cost recovery program procedures and eligibility standards.
- Coordinate with Public Works Department, as necessary, to design and construct permanent repairs to affected Regional Wastewater Facility infrastructure.

Parks, Recreation, and Neighborhood Services (PRNS) will:

- Staff EOC Operations Section's Mass Care Branch.
- Coordinate with EOC to conduct safety assessments of potential shelter sites.
- Support and report windshield surveys of sites, facilities, and open spaces that will be used as mass care sites, evacuee pick-up points, resource staging areas, etc. Send this information to the EOC.
- In coordination with the Public Works Department, participate in damage assessments of the facilities operated and maintained by the Parks, Recreation, and Neighborhood Services Department, to include parks, trails, community centers, etc.
- Coordinate with the Public Works Department to procure force account labor or contract labor to conduct short-term or emergency repairs to support the City's mass care and shelter activities and resume the provision of services by Parks, Recreation, and Neighborhood Services.
- Coordinate with the Public Works Department to design and construct permanent repairs to affected Parks, Recreation, and Neighborhood Services facilities, property, and infrastructure.

B. External Partner Responsibilities

The following external entities may provide support, services, situation reports, information, and/or resources to the City of San José, based on their expected roles and responsibilities and availability. The City must request state and federal resources through coordination with the Santa Clara County Operational Area.

County of Santa Clara

The Santa Clara Operational Area is responsible for coordinating emergency response for all of the political subdivisions, including special districts, in Santa Clara County. The City will coordinate with the Santa County Operational Area for damage assessment planning and operations.

Santa Clara County Office of Emergency Services will:

- Coordinate damage and safety assessment inspections between external entities and local governments within the Operation Area
- Collect and assimilate damage and safety assessment information for dissemination to California Governor's Office of Emergency Services

State of California

The City of San José must request state resources through the Santa Clara County Operational Area. State agencies and departments with primary roles and responsibilities in damage and safety assessment operations are included below.

California Governor's Office of Emergency Services (Cal OES) will:

- Implement the California Emergency Services Act and perform the executive functions assigned by the Governor to support and enhance all phases of emergency management, including damage and safety assessment, during the response and recovery phases.
- Collect and assimilate damage and safety assessment information from local governments
- Coordinate the Safety Assessment Program (SAP), which provides professional engineers, architects, and certified building officials to assist local governments in performing safety evaluations of their built environment in the aftermath of disasters.
- Evaluate Initial Damage Estimate (IDE) forms to determine appropriate assistance programs to meet agency and survivor needs.
- Disseminate information to the Federal Emergency Management Agency
- Support information gathering for:
    - U.S. Small Business Administration
    - U.S. Department of Agriculture
    - U.S. Department of Housing and Urban Development
    - U.S. Department of Transportation
        - Federal Highways Administration
        - Federal Transit Administration

California Department of Housing and Community Development will:

- Collect and assimilate damage assessment information pertaining to housing needs from local governments
- Disseminate information to the United States Department of Housing and Urban Development, as needed

Federal Government

The Federal Emergency Management Agency (FEMA) is the agency designated by the Stafford Act to manage the federal response to major disasters in support of states. To implement this responsibility, FEMA has 10 regional offices, each headed by a Regional Administrator. The regional field structures are FEMA's permanent presence for communities and states across the Nation. The FEMA Region IX office in Oakland, California, has a staffed Watch Center to provide 24/7 situational awareness and incident reporting. This office also supports three Incident Management Assistance Teams (IMATs), which provide initial support in response operations. A FEMA national Incident Management Assistance Team (IMAT) is located in Mather, California, and is deployed to provide federal support for California Governor's Office of Emergency Services operations at the State Operations Center (SOC), establish the Unified Coordination Group, and form the core of the federal presence at a Joint Field Office. Federal resources must be requested by California Governor's Office of Emergency Services, typically through the Santa Clara County Operational Area.

Federal Emergency Management Agency (FEMA) will:

- Collect and assimilate damage assessment information
- Evaluate Preliminary Damage Assessment information for consideration for:
    - Public Assistance program
    - Hazard Mitigation program

- Individual Assistance program

U.S. Small Business Administration will:

- Collect and assimilate damage assessment information for programmatic eligibility
- Evaluate Preliminary Damage Assessment information for consideration of Small Business Association programs

U.S. Department of Housing and Urban Development (HUD) will:

- Collect and assimilate damage assessment information for programmatic eligibility
- Evaluate Preliminary Damage Assessment information for consideration of the Community Disaster Block Grant-Disaster Recovery program

U.S. Department of Transportation (USDOT) will:

- Collect and assimilate damage assessment information for programmatic eligibility
- Evaluate Preliminary Damage Assessment information for consideration of eligibility for:
  - Federal Highways Administration – Emergency Response (FHWA-ER) program
  - Federal Transit Administration – Emergency Response (FTA-ER) program

REFERENCES

The Damage Assessment Support Annex was developed using the following plans, policies, and guidance:

- City of San José, Office of Emergency Management. (2018). *Emergency Operations Plan*. pp. 4-5, 7, 16, 26, 33, 46, 53-54.
- City of San José, Office of Emergency Management (2014). *Construction and Engineering Emergency Action Plan*. Pp. 14-21
- City of San José, Department of Public Works (2010). *DPW Emergency Preparedness and Response Plan*. Pp. 5-8, 37-38
- Witt O'Brien's. (2017). City of San José 2017 Coyote Creek Flood After Action Review & Improvement Recommendations Report. Pp. 46-49
- Applied Technology Council (various). *ATC 20, ATC 20-1, ATC 20-2, ATC 45*.
- California Governor's Office of Emergency Services. (2016). *Damage Assessment for SAP Participants Guide*.
- California Governor's Office of Emergency Services. (2017) *State of California Emergency Plan*. Pp. 73, 107, 126, 133
- Federal Emergency Management Agency. (2016). *Damage Assessment Operations Manual*.
- Emergency Management Accreditation Program. (2016). *2016 Emergency Management Standard.* (Standards 4.4.3.6, 4.4.8, and 4.4.9)
- United States Code, Title 42, Sections 403, 406, 407. (2013) The Robert T. Stafford Disaster Relief and Emergency Assistance Act.

APPENDIX A: ACRONYMS AND GLOSSARY

Acronyms

AAR	After-Action Review
ATC	Applied Technology Council
Cal OES	California Governor's Office of Emergency Services
CDAA	California Disaster Assistance Act
CERT	Community Emergency Response Team
C-MIST	Communication, Maintaining health; Independence, Safety, support services, and self-determination, and Transportation
DOC	Department Operations Center
DOT	Department of Transportation (San José)
DPW	Department of Public Works
EOC	Emergency Operations Center
ESD	Environmental Services Department
FEMA	Federal Emergency Management Agency
FHWA_ER	Federal Highways Administration – Emergency Response Program
FTA-ER	Federal Transit Administration – Emergency Response Program
HCD	California Department of Housing and Community Development
HUD	U.S. Department of Housing and Urban Development
IA	FEMA Individual Assistance Program
IDE	Initial Damage Estimate (form)
IMAT	Incident Management Assistance Team
ITD	Information Technology Department
OEM	Office of Emergency Management
PA	FEMA Public Assistance Program
PBCE	Department of Planning, Buildings, and Code Enforcement
PDA	Preliminary Damage Assessment
PRNS	Department of Parks, Recreation, and Neighborhood Services
SAP	Safety Assessment Program
SBA	U.S. Small Business Administration
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation

Glossary

Safety Assessment Program Placards:

- **INSPECTED (green placard): allowing for lawful occupancy**
  Buildings can be damaged, yet remain safe. If the safety of a building was not significantly changed by the disaster, it should be posted with a green placard reading INSPECTED.
- **RESTRICTED USE (yellow placard): entry is lawful but restricted with instructions/specifics**
  When there is some risk from damage in all or part of the building that does not warrant red-tagging, a yellow tag should be used. The placard should indicate the specific restriction (i.e., entry, duration of occupancy, use, etc.). When the extent of damage is uncertain or cannot be ascertained within the time and resources available to a Rapid Evaluation Team, the building should be posted with a yellow placard reading RESTRICTED USE indicating additional inspection requirements, and any restrictions on use or occupancy should be clearly noted on the placard.
- **UNSAFE (red placard): entry not authorized except where permitted by jurisdiction**
  Buildings damaged by a disaster that pose an imminent threat to life or safety under expected loads or other unsafe conditions should be posted with a red placard reading UNSAFE. These are not demolition orders.

Initial Damage Estimate:

An Initial Damage Estimate is the local governments' identification of the impacts and local response and recovery activities. The estimate assists the state with understanding the jurisdiction's damages and prioritizing Preliminary Damage Assessment (PDA) efforts, which in turn can lead to a state or federal disaster declaration. An Operational Area must include all its affected governing bodies (cities, towns, etc.), special districts (school districts, water districts, community services districts, etc.), and private non-profit organizations within the Initial Damage Estimate.

An Initial Damage Estimate include:

- Type and extent of public and private sector damage;
- Estimates of damages and emergency response costs; and
- Any acute public health and environmental issues

Preliminary Damage Assessment:

A Preliminary Damage Assessment (PDA) process is a mechanism used to determine the impact and magnitude of damage and the resulting unmet needs of individuals, businesses, the public sector, and the community as a whole. Information collected is used by the state as a basis for the Governor's request for emergency declaration, and by FEMA to document the recommendation made to the President in response to the Governor's request.

APPENDIX B: RECOMMENDED TRAINING

The following list of courses are recommended for personnel who have been selected to serve as the Damage Inspection Branch Coordinator or as the Damage Data Collection Branch Coordinator. The training below does not include courses that would be required for engineers conducting technical facility and infrastructure inspections.

IS-556 Damage Assessment

IS-559 Local Damage Assessment

IS-1160 Damage Assessment Operations Training

G-270.4 Disaster Recovery

Cal OES Safety Assessment Program Evaluator Course

Cal OES Safety Assessment Program Coordinator Course

APPENDIX C: EOC TOOLS AND RESOURCES

The list below includes recommended tools, applications, and resources that can be used in the EOC to enhance the capability of coordinating safety assessment and damage inspection activities and to better collect, document, display, and share safety assessment and damage inspection data/information.

FEMA P-784, Substantial Damage Estimator

GIS Applications such as:

- GoCanvas Mobile Applications
- Survey 123 for ArcGIS
- Collector for ArcGIS
- Operations Dashboard for ArcGIS

APPENDIX D: SANTA CLARA COUNTY OPERATIONAL AREA INITIAL DAMAGE ESTIMATE (IDE) FORM

Note: Form is on following page.

DUE DATE:_____TIME: 17:00 hrs SUBMIT TO: ~~XXXXXXXXXXXXX~~

Initial Damage Estimate: Jurisdiction of

_____

(DA-X-1) (City, District, Co. Dept.)

Event _____

Date: _____

Declarations		
City	Date Proclaimed	
ONLY FILL OUT IF APPLICABLE	Date Requested	Date Granted
County Concurrence		
Directors Concurrence		
Gubernatorial		
Small Business Administration		
Presidential		
Individual Assistance		
Public Assistance		

Individual Assistance (IA) Damages (Damage to private homes or property)

	Homes Destroyed	Major Damage	Minor Damage	Affected* (no physical damage	Estimated Loss $	Estimated % covered by insurance
Primary residence (include mobile homes						
Other (i.e. Out bldgs, etc.						

Small Business Administration Loan Damages

	Businesses destroyed	Major Damage	Minor Damage	Affected* (no physical damage	Estimated Loss $	Estimated % covered by insurance
Business (SBA)						
Private Nonprofit						

Agricultural Damage

	Acres Impacted	Number Impacted	Estimated Loss $
Crops/Grazing Lands			
Farm Buildings & Machinery			
Livestock			

Public Assistance (PA) Damage (Damage to government buildings, property, or other infrastructure)		
Category	Number of Sites	Estimated Loss$
Category A: Debris Removal & Disposal		
Category B: Emergency Protective Measures		
Category C: Road & Bridge Systems (non-Federal)		
Category D: Water Control Facilities (levees, dams, & channels)		
Category E: Public Buildings & Equipment		
Category F: Public Utilities (water & power, etc.)		
Category G: Park/Recreational/Other		
Comments		

Federal Program Damages (Rare)		Estimated Costs $
Federal Highways (Emergency Relief Program)		
U.S. Army Corps of Engineers (PL 84-99)		
Natural Resources Conservation Service		
Other 1 (Specify)		
Other 2 (Specify)		
Other 3 (Specify)		

Reporting Agency Point of Contact (Critical that each reporting jurisdiction provide the following)	
Name /Title	
Phone(cell)	
Fax	
Phone (desk)	
E-Mail	
When known, enter estimated date to begin Preliminary Damage Assessments (PDA)	

Information provided here is an early estimate to determine extent of damage, not an actual claim for state or federal reimbursement. You will be able to revise information provided here when further assessments are completed.

APPENDIX E: PUBLIC ASSISTANCE DAMAGE ASSESSMENT CATEGORY OF WORK CHECKLISTS

Category A: Debris Removal

	Classification of debris by type: • Vegetative debris including hazardous limbs, trees, and stumps • White goods (Appliances such as refrigerators and other household appliances) • Construction and demolition (C&D) debris • Hazardous, infectious, putrescent, and/or CBRN waste White goods (appliances) • Buildings and contents/construction and demolition • Soil, Mud, and Sand • Wet debris • Vehicles and Vessels • Contaminated
	Location of Debris* (roads, ROW, private property, waterways, parks, etc.)
	Quantity of each type of debris being removed
	How work was/will be accomplished • Force account • Contract • Combination
	Force Account cost • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Contract costs
	Unit costs ($/ton or CY)- with explanation of calculation
	Percent of debris removal completed at the time of assessment
	Location of debris operations facilities (reduction sites, disposal sites, etc.)
	Unique removal requirements (special equipment, long hauls, staging, reduction, hazardous materials, local ordinances etc.)
	Recycling or reusing any of the debris (yes/no)
	Impact on normal community functions
	Environmental and historic preservation considerations

	• Photographs • Work completed • Work to be completed • Locations where estimates were developed
	Debris quantity calculation sheets
	Contracts (provide for large projects) • Contractor Bids or invoices • Disposal invoices
	Force Account • Labor cost summary (separate regular time from overtime) • Equipment cost summary • Supply cost summary
	Notated maps • Debris locations • Debris operations facilities

*When applicable refer to the Use of the United States National Grid (USNG), FEMA Directive 092-5

Category B: Emergency Protective Measures

	Location (specific location address and GPS/USNG location or jurisdiction wide)
	Emergency protective measures required
	How work was/will be accomplished • Force account • Contract • Mutual Aid • Combination
	Force Account cost • Labor (include overtime hours and rates used) • Equipment (include time and rates used) • Supplies (substantial expenditures should be noted specifically with unit cost)
	Mutual aid cost
	Contract cost
	Percent of emergency protective measures completed at the time of assessment
	Unique requirements that impact cost
	Impact on normal community functions

Supporting Documentation

	Photographs of unique requirements
	Force Account • Labor cost summary (overtime) • Equipment cost summary • Supply cost summary
	Mutual aid agreements used (provide for large projects)
	Contracts, bids, or invoices (provide for large projects)
	Notated maps

Category C: Roads and Bridges

	Location(s) (address and/or GPS/USNG location)
	Federal Aid Road or BIA road (yes/no/unsure)
	Road or bridge type (specific structure and material)
	Repair/replacement required (in-kind) • Damaged elements • Damage dimensions
	How work was/will be accomplished • Force account • Contract • Combination
	Force account cost (actual or estimate) • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Material cost (actual or estimate)
	Contract cost (actual or estimate)
	Unique requirements that impact cost
	Impact on normal community functions
	Environmental and historic preservation considerations

Supporting Documentation

	Photographs (sample if multiple similar damage has occurred)
	Force Account (work completed) • Labor cost summary (separate regular time from overtime) • Equipment cost summary • Supply cost summary
	Contracts, bids, or invoices (provide for large projects)
	Basis for estimations (for work to be completed) • Historic costs for similar work (provide example for large projects) • Estimate by professional familiar with the facility (provide breakdown)
	Commercial estimating source (RS Means, Cost Works, etc.) report

	Recent safety inspection reports or maintenance records that show pre-disaster condition (provide for large projects)
	Codes and standards to be considered (provide when the code or standard will dramatically increase the cost of restoration)
	Notated maps

Category D: Water Control Facilities

	Location(s) (address and/or GPS/USNG location)
	Facility type
	Are repairs to these facilities the responsibility of USACE or NRCS? (yes/no/unsure)
	Repair/replacement required (in-kind) • Damaged elements • Damage dimensions
	How work was/will be accomplished • Force account • Contract • Combination
	Force Account cost (actual or estimate) • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Material cost (actual or estimate)
	Contract cost (actual or estimate)
	Unique requirements that impact cost
	Impact on normal community functions
	Environmental and historic preservation considerations

Supporting Documentation

	Photographs (sample if multiple similar damage has occurred)
	Force Account (work completed) • Labor cost summary (separate regular time from overtime) • Equipment cost summary • Supply cost summary
	Contracts, bids, or invoices (provide for large projects)

	Basis for estimations (for work to be completed) • Historic costs for similar work (provide example for large projects) • Estimate by professional familiar with the facility (provide breakdown – especially when replacement is requested) • Recent inspection reports or maintenance records that show pre-disaster condition (when pre-disaster condition may impact estimate of large project) • Specifications or as-built drawings of the damage facility (may be helpful – only for large projects)
	Codes and standards to be considered (provide when the code or standard will dramatically increase the cost of restoration)
	Notated maps

Category E: Buildings and Equipment

	Location(s) (address and/or GPS/USNG location)
	Facility type
	Repair/replacement required (in-kind) • Damaged elements • Damage dimensions • Damaged equipment type • Damaged building contents
	How work was/will be accomplished • Force account • Contract • Combination
	Force account cost (actual or estimate) • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Material cost (actual or estimate)
	Contract cost (actual or estimate)
	Value of equipment (blue book value) if replacement is required
	Insurance deductibles and limits
	Unique requirements that impact cost
	Impact on normal community functions
	Environmental and historic preservation considerations

Supporting Documentation

	Photographs (sample if multiple similar damage has occurred)
	Force Account (work completed) • Labor cost summary (separate regular time from overtime) • Equipment cost summary • Supply cost summary
	Contracts, bids, or invoices (provide for large projects)

	Insurance documentation needed to establish deductible and limits (provide for large projects)
	Basis for estimations (for work to be completed) • Historic costs for similar work (provide example for large projects) • Estimate by professional familiar with the facility (provide breakdown – especially when replacement is requested) • Commercial estimating source (RS Means, Cost Works, etc.) report
	Codes and standards to be considered (provide when the code or standard will dramatically increase the cost of restoration)
	Notated maps

Category F: Utilities

	Location(s) (address and/or GPS/USNG location)
	Facility type
	Repair/replacement required (in-kind) • Damaged elements • Damage dimensions (size, length, capacity, etc.)
	Will reconductoring be required (yes/no/unsure)
	How work was/will be accomplished • Force account • Contract • Combination
	Force account cost (actual or estimate) • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Material cost (actual or estimate)
	Contract cost (actual or estimate)
	Unique requirements that impact cost
	Impact on normal community functions
	Environmental and historic preservation considerations

Supporting Documentation

	Photographs (sample if multiple similar damage has occurred)
	Force Account (work completed) • Labor cost summary (separate regular time from overtime) • Equipment cost summary • Supply cost summary
	Contracts, bids, or invoices (provide for large projects)

	Basis for estimations (for work to be completed) • Historic costs for similar work (provide example for large projects) • Estimate by professional familiar with the facility (provide breakdown – especially when replacement is requested) • Commercial estimating source (RS Means, Cost Works, etc.) report
	Information used to evaluate the need for reconductoring (if reconductoring is requested)
	Codes and standards to be considered (provide when the code or standard will dramatically increase the cost of restoration)
	Notated maps

Category G: Parks, Recreational, and Other

	Location(s) (address and/or GPS/USNG location)
	Facility type
	Repair/replacement required (in-kind) • Damaged elements • Damage dimensions
	How work was/will be accomplished • Force account • Contract • Combination
	Force account cost (actual or estimate) • Labor (include regular time and overtime hours and rates used) • Equipment (include time and rates used) • Supplies (list supplies used and cost)
	Material cost (actual or estimate)
	Contract cost (actual or estimate)
	Insurance deductibles and limits
	Unique requirements that impact cost
	Impact on normal community functions
	Environmental and historic preservation considerations

Supporting Documentation

	Photographs (sample if multiple similar damage has occurred)
	Force Account (work completed) • Labor cost calculation sheet (separate regular time from overtime) • Equipment cost calculation sheet • Supply cost calculation sheet
	Contracts, bids, or invoices (provide for large projects)
	Insurance documentation needed to establish deductible and limits (provide for large projects)

	Basis for estimations (for work to be completed) • Historic costs for similar work (provide example for large projects) • Estimate by professional familiar with the facility (provide breakdown – especially when replacement is requested) • Commercial estimating source (RS Means, Cost Works, etc.) report
	Codes and standards to be considered (provide when the code or standard will dramatically increase the cost of restoration)
	Notated maps

APPENDIX F: PRELIMINARY DAMAGE ASSESSMENT PUBLIC ASSISTANCE SITE SHEET EXAMPLE

SHEET 1 OF SHEETS

FEDERAL EMERGENCY MANAGEMENT AGENCY **PRELIMINARY DAMAGE ASSESSMENT SITE ESTIMATE**			DATE
PART I - APPLICANT INFORMATION			
COUNTY	NAME OF APPLICANT	NAME OF LOCAL CONTACT	PHONE NO.

PART II - SITE INFORMATION

KEY FOR DAMAGE CATEGORY *(Use appropriate letters in the "category" blocks below)*

a. DEBRIS REMOVAL	d. WATER CONTROL FACILITIES	g. FACILITIES UNDER CONSTRUCTION
b. PROTECTIVE MEASURES	e. PUBLIC BUILDINGS	h. PRIVATE NON-PROFIT
c. ROADS AND BRIDGES	f. PUBLIC FACILITIES	I. PUBLIC RECREATION

SITE NO.	CATE-GORY	LOCATION *(Use map location, address, etc.)*	
DESCRIPTION OF DAMAGE			
IMPACT:		% COMPLETE	COST ESTIMATE
SITE NO.	CATE-GORY	LOCATION *(Use map location, address, etc.)*	
DESCRIPTION OF DAMAGE			
IMPACT:		% COMPLETE	COST ESTIMATE
SITE NO.	CATE-GORY	LOCATION *(Use map location, address, etc.)*	
DESCRIPTION OF DAMAGE			
IMPACT:		% COMPLETE	COST ESTIMATE
SITE NO.	CATE-GORY	LOCATION *(Use map location, address, etc.)*	
DESCRIPTION OF DAMAGE			
IMPACT:		% COMPLETE	COST ESTIMATE

NAME OF INSPECTOR	AGENCY	PHONE NO. OFFICE	HOME

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Appendix G: Individual Assistance Damage Assessment Matrix

Assessment Matrix for Manufactured Homes

Degree of Damage	Definition	For Flood Damage	For Damage Other Than Flood (e.g., Wind Driven Rain, Earthquake)
Affected	This category includes residences with cosmetic damage only. It also applies to residences with damage to a porch, carport, garage, and/or an outbuilding not for commercial use, etc.	• No damage affecting habitability; cosmetic damage only.	The dwelling's frame is not bent, twisted, or otherwise compromised. **No structural components of the dwelling have been damaged** (e.g., windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up).
Minor	The residence is damaged and requires minimal repairs.	• Water line is below the floor system. • Skirting or HVAC is impacted. • There is no structural damage to the residence and it has not been displaced from the foundation.	• There is no structural damage to the residence and it has not been displaced from the foundation. • Nonstructural components have sustained damage - e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up. • Skirting or HVAC is impacted.
Major	The residence has sustained structural or significant damage that require extensive repairs.	• Water has come into contact with the floor system. • The residence has been displaced from the foundation, block or piers and other structural components have been damaged.	• The residence has been displaced from the foundation, block or piers and other structural components have been damaged.
Destroyed	The residence is a total loss.	• The residence is a total loss.	• The residence's frame is bent, twisted, or otherwise compromised. • The residence is missing the roof covering or the structural ribbing has collapsed for the majority of the roof system.

Damage Assessment Matrix for Conventionally Built Homes

Category of Damage	Definition	Flood Examples	Non-Flood Examples
Affected	Residences with minimal damage to the exterior and/or contents of the home.	• Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged	• Partial missing shingles or siding. • Cosmetic damage such as paint discoloration or loose siding. • Broken screens. • Gutter damage and debris. • Damage to an attached structure such as a porch, carport, garage, or outbuilding not for commercial use. • Damage to landscaping, retaining walls, or downed trees that do not affect access to the residence.
Minor	Encompasses a wide range of damage that does not affect the structural integrity of the residence.	• Water line up to 18 inches in an essential living space. • Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.).	• Nonstructural damage to roof components over essential living space to include shingles e.g. roof covering, fascia board, soffit, flashing, and skylight. • Nonstructural damage to the interior wall components to include drywall, insulation • Nonstructural damage to exterior components • Multiple small vertical cracks in the foundation. • Damage to chimney to include, tilting, fallen, cracks, or separated from the residence. • Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.).
Major	A residence may be categorized as having major damage when it has sustained significant structural damage and requires extensive repairs.	• Water line above 18 inches in an essential living space, a water line above the electrical outlets, or a waterline on the first floor of a residence when basement is completely full.	• 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 residence on the foundation of more than six inches.
Destroyed	The residence is a total loss, or damaged to such an extent that repair is not feasible.	• Complete failure of two or more major structural components (e.g., collapse of basement walls, foundation, walls, or roof).	• Only foundation remains. • A residence that will require immediate demolition or removal because of disaster-related damage or confirmed imminent danger (e.g., impending landslides, mudslides, or sinkholes).

APPENDIX H: PRELIMINARY DISASTER ASSESSMENT INDIVIDUAL ASSISTANCE STREET SHEET EXAMPLE

City_____ County_____ State_____ Disaster Type_____ Date_____ Page _____ of _____

FEMA_____ State_____ Local_____ SBA_____

Address	Affected Habitable								Minor								Major								Destroyed								Not Primary	Inaccessible	Private Road or Bridge	Utilities Out	Water Depth		Other
	Single Family		Multi Family		Manufactured Home		Low Income	Insured	Single Family		Multi Family		Manufactured Home		Low Income	Insured	Single Family		Multi Family		Manufactured Home		Low Income	Insured	Single Family		Multi Family		Manufactured Home		Low Income	Insured					Basement	Living Area	
	O	R	O	R	O	R			O	R	O	R	O	R			O	R	O	R	O	R			O	R	O	R	O	R									
	1	2	1	2	1	2	3	4	1	2	1	2	1	2	3	4	1	2	1	2	1	2	3	4	1	2	1	2	1	2	3	4	5	6	7	8	9	10	11
Totals																																							
Category Totals																																							