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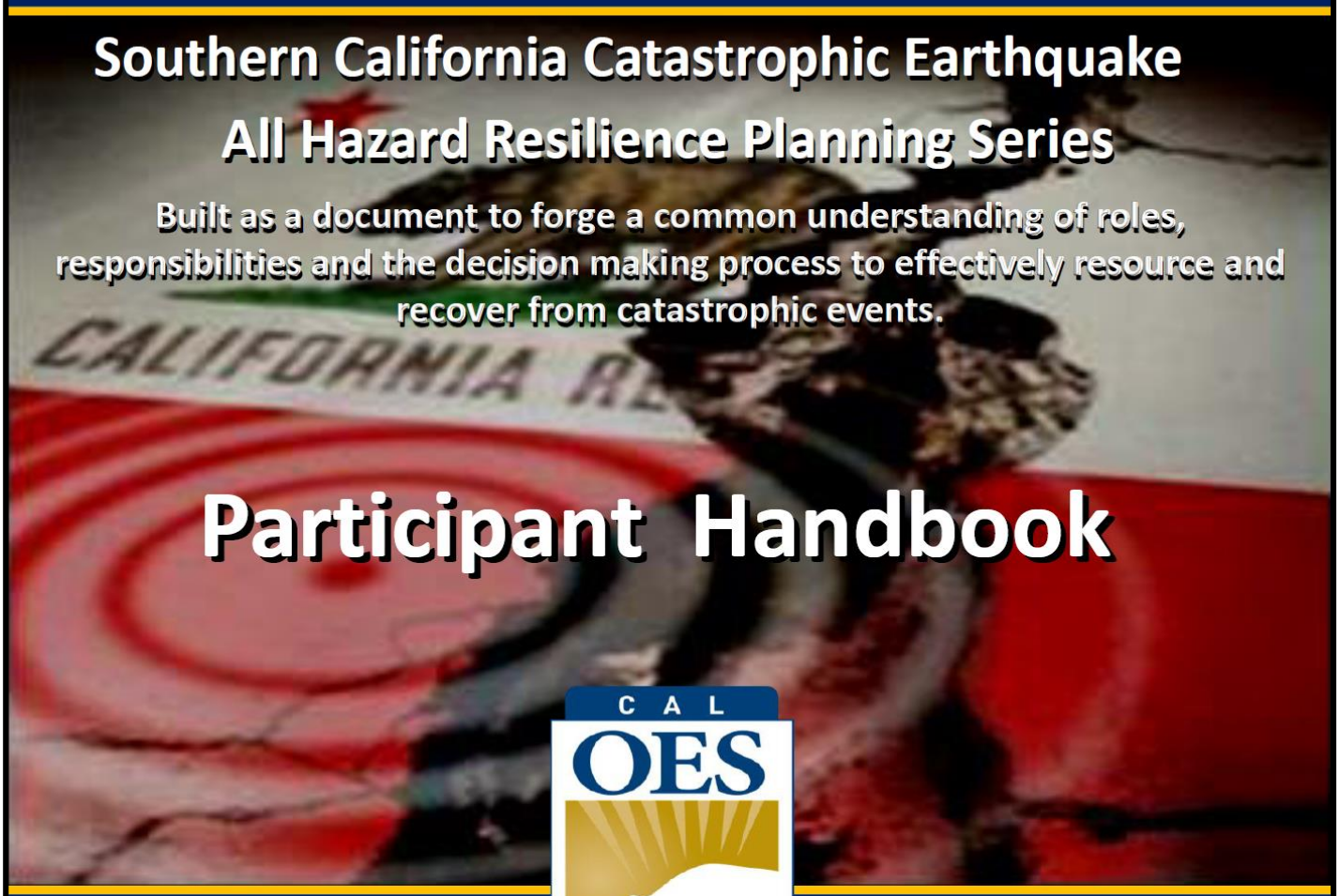
CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES
Multi-Agency Coordination Systems (MACS)

Emergency Transportation Fuels Set-A-Side Program
Discussion Based Table Top Exercise

Southern California Catastrophic Earthquake
All Hazard Resilience Planning Series

Built as a document to forge a common understanding of roles, responsibilities and the decision making process to effectively resource and recover from catastrophic events.



Participant Handbook

Exercise Date:
09 / 30 / 2016

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Emergency Fuels Set-A-Side
Multi-Agency Coordination System (MACS)
Discussion Based Tabletop Exercise

PREFACE

This Earthquake Discussion Table Top Exercise was developed to familiarize executive administrators with *"Multi-Agency or Inter-Agency Coordination Decision Making"*. Participation of agencies and disciplines involved at any level of California's Standardized Emergency Management System (SEMS) organization, work together in a coordinated effort must facilitate incident prioritization and identify scarce critical resources to support overall emergency response activities.

The primary purpose of the Multi-Agency Coordination (MAC) Group is to coordinate critical fuels resource allocation activities above the field level and prioritize the incident demands for critical or competing resources, thereby assisting the coordination of the operations in the field.

As the size or complexity of an incident grows so does the coordination required to properly support the response. The southern California regional earthquake scenario allows senior executives to experience an increasing impact to both its emergency and daily operational activities. The coordination of resources, communications, and other supporting efforts must be implemented to ensure successful accomplishment of emergency management objectives established for the incident while still maintaining acceptable levels of essential vital services within the impacted area and surrounding region.

Participants attending will be provided with all the necessary tools for their roles in prioritizing incidents and allocating scarce resources effectively. Controlling this exercise information is based on organizational sensitivity regarding the nature of the exercise than on the actual exercise content. This exercise material is intended for the exclusive use of MAC Group participants or designees only.

From this Earthquake Discussion Based Table Top Exercise, California Energy Commission (CEC), Western Regional Emergency Fuel Group, National Association of State Energy Officials (NASEO), California Utilities Emergency Association (CUEA), MAC Group Coordinators/Facilitators, California Governor's Office of Emergency Services (Cal OES), Federal Emergency Management Agency (FEMA) Logistics, and Department of Logistics (DLA) will evaluate its findings and modify or update *Procedure Guidance* accordingly. All information shared is subjective and will be reviewed by the CEC Group members through the After Action Report (AAR) and Improvement Plan (IP) process on details and steps to incorporate change within emergency set-a-set program and procedures.

This Participant Handbook is a companion document to California's Multi-Agency Coordination System (MACS) All-Hazard Guidance and serves as a model for emergency management training and response operations. It was produced with input, advice, and assistance from Cal OES MACS Workgroup, which follows the guidance set forth in SEMS/NIMS and DHS/FEMA's Homeland Security Exercise and Evaluation Program (HSEEP).

HANDLING INSTRUCTIONS

1. The title of this document is the Emergency Transportation Fuels Set-A-Side Discussion Based Tabletop Exercise (TTX) Participant Handbook.

2. The information gathered in this Participant Handbook is classified as *For Official Use Only (FOUO)* and should be handled as sensitive information not to be disclosed. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. Reproduction of this document, in whole or in part, without prior approval from Cal OES Preparedness Branch is prohibited.

3. At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a place where it will offer sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.

4. For more information, please consult the following points of contact (POCs):

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	Background - Southern CA Earthquake Risk
	Operational Planning Overview/Scenario
	Major Impacts
	SOC Initial Planning Objectives
10:00 Break	Information Collection Plan/Situational Awareness
	Direct Impacts to Western States Fuel Flow
	Fuel Infrastructure Damage
	Multi-Agency Coordination Group Decision Making Process
	Open Discussion to the MAC Decision Making Process
	Public and Private Partnerships
	Best Practices and Lessons Learned
11:00 – 11:30	Hot Wash
11:30	Adjourn

INTRODUCTION

PURPOSE

This document supports a joint state/federal analysis of earthquake response for emergency transportation fuels allocation. The discussion based exercise incorporates that support each of the five mission areas; 1) Prevention, 2) Protection, 3) Mitigation, 4) Response, and 5) Recovery all tied to CA-ESF #7 – Logistics Management and Resource Support.

In continuance of the analytical process, this document describes the impact to fuels infrastructure from a catastrophic earthquake in the Southern California Area. The focal point of the analysis is to examine the implications for the coordination of emergency transportation fuels responding to critical emergency services, and which resources from public/private partnerships will be available to leverage for use during and after a major earthquake.

Today's discussion based tabletop exercise (TTX) offers participants an opportunity to gain an understanding of the issues involved in addressing fuel shortages as a direct result of a 7.8 magnitude earthquake in southern California. The goal of this exercise is to develop the Multi-Agency Coordination (MAC) Group decision making framework to support emergency transportation fuel prioritization and resource allocation for the impacted region.

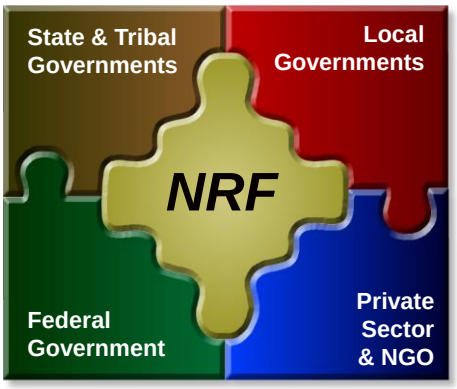
SCOPE

While the focus of this discussion based TTX outlines the critical aspects of preparing for a "catastrophic earthquake" in southern California. It examines the expectations between emergency management and the private sector supporting emergency transportation fuel set-a-side program. Through this discussion, participants will better understand the scope and complexity of prioritizing and allocating fuels the have direct impact for operational response and supporting organizations. Key critical decisions points are made to the overall integration and coordination needed to be successful provide emergency transportation fuels when responding and recovering from this type of devastating incident.

INTEGRATED KEY CONCEPTS

The National Response Framework (NRF), requires an effective, unified response that is layered, with mutually supporting capabilities, and States having the primary responsibility for public health and welfare of its citizens. Five elemental principles of operation constitute national response doctrine:

- Engaged partnerships
- Tiered response
- Scalable, flexible and adaptable operational capabilities
- Unity of effort through unified command
- Readiness to act



Expanded Focus on Partnerships: The *Framework* states that an effective national response requires layered, mutually supporting capabilities. This approach affirms that local communities, tribes and States have primary responsibility for the safety and security of their citizens; that local leaders build the foundation for response and that resilient communities begin with prepared individuals and families.

State – The California Governor's Office of Emergency Services (Cal OES) has responsibility for public safety and welfare. Within California, the main players in coordinating resources and capabilities and obtaining support from regional mutual aid, aid other States and the Federal government:

- Director, Cal OES (Homeland Security Advisor/Emergency Management – State Coordinating Officer)
- Adjutant General, CNG Military Department
- CA-ESF 1 Transportation – Secretary, CTA, Director CalTrans
- CA-ESF 2 Communications – Cal OES Assistant Director, PSCO
- CA-ESF 3 Construction and Engineering – Secretary, Cal GOA, Director, CDGS
- CA-ESF 4 Fire and Rescue – Division Chief, Cal OES Fire and Rescue
- CA-ESF 5 Emergency Management – Deputy Director, Response and Operations
- CA-ESF 6 Care and Shelter – Secretary, Health and Human Services, Director, CDSS
- CA-ESF 7 Resources – Secretary, Government Operations Agency/Director, CDGS
- CA-ESF 8 Public Health and Medical - Secretary, Health and Human Services, Director, CDPH, Director, EMSA.
- CA-ESF 9 Search & Rescue - Merged (CA-ESF4 & CA-ESF9)
- CA-ESF 10 Hazardous Materials – Secretary, Cal EPA
- CA-ESF 11 Food and Agriculture – Secretary, CDFA
- CA-ESF 12 Utilities – Executive Director, CUEA
- CA-ESF 13 Law Enforcement – Division Chief, Cal OES Law Enforcement
- CA-ESF 14 Recovery – Assistant Director, Cal OES Recovery (All)
- CA-ESF 15 Public Information – Deputy Director, Cal OES Office of Comm.'s & Public Affairs
- CA-ESF 16 Evacuation - Merged (CA-ESF13)
- CA-ESF 17 Volunteer and Donations Management – Chief Service Officer, Cal Vol
- CA-ESF 18 Cyber Security – Cal OES Assistant Deputy Director, STAC

Local officials have primary responsibility for community preparedness and response

- Elected/Appointed Officials (Mayor)
- Emergency Manager
- Public Safety Officials

The Private Sector supports community response, organizes business to ensure resiliency, and protects and restores critical lifelines/infrastructure and commercial activity

NGOs perform vital service support missions

- Assist individuals who have special needs
- Coordinate volunteers
- Interface with government response officials at all levels

CORE CAPABILITIES

This Participant Handbook uses core capabilities-based planning to guide preparedness planning, establish training requirements, and evaluates performance through this decision based TTX. This approach identifies gaps in current capabilities and focuses efforts on the improvement planning process. In keeping with the capabilities-based planning described in the National Preparedness Framework, the following capabilities provide the foundation for development of the exercise objectives and scenario. The below selected Core Capabilities have been selected to analysis and evaluate this exercise.

Selected Core Capabilities: (Core Capabilities based upon the National Preparedness Goal)

Cal OES Continuity Program Core Capabilities		
Core Capability	**Reference Number**	**Core Capability Targets**
Planning	01	Develop, validate, and maintain Multi-Agency Coordination (MAC) Group procedures and how the group prioritizes, coordinates, and manages critical information as part of the overall information collection plan. Look at the emergency transportation fuels set-a-side program to adequately allocate and provide scarce fuel reserves to impacted region during: 1) Examine Phase 2A: 0-24 Hours – Activation (Immediate Response) 2) Examine Phase 2B: 12-72 Hours – Deployment and Employment
	02	Discuss, familiarize and exercise the Southern California Catastrophic Earthquake Response Plan. Address transportation fuels set-a-side program procedural gaps and shortfalls. Look at proof of concept (Fuels MAC Group) SOC integration and functionality.
	03	Provide exercise analysis back to California Energy Commission to improve policies, procedures that assist in a better understanding of California's Multi-Agency Coordination System (MACS).
Situational Assessment And Awareness	04	Provide decision makers with decision-relevant information regarding the nature and extent of the hazard/disruption, any cascading effects, and status of response. Analyze transportation critical fuel needs to inform decision makers to prioritize and allocate scare fuel assets regarding re-establishing organizational and state essential functions, stabilizing the incident and transitioning to recovery. Assess overall integration and coordination needed to be successful when conducting initial response operations, training and exercises.
Operational Communications	05	Assess the capability for timely communications in support of situational awareness and operations to mitigate and recover from the event. Examine the Fuels MAC Group prompt and actionable information for effective incident action planning. Discuss communication infrastructure within the affected areas to support effective emergency fuels allocation.
Operational Coordination	06	Examine the Fuels MAC Group operational structure to effectively support all operational phases; response, mitigation and recovery. Assess Fuels MAG Group to effectively prioritize and allocate scarce fuels resources. Execute operations with functional and integrated communications. Examine the Identification, assessment, prioritization, allocation of the MAC Group Planning Process. Establish and maintain partnerships to support networking, planning, and coordination. Enhance resiliency and maintain SEMS/NIMS compliancy.

Note: Core Capabilities are the distinct critical elements necessary for success, enabling the assessment and/or evaluation process to look at organizational preparedness levels and identify areas to address in improvement plans, policies and procedures.

EXERCISE OBJECTIVES

Exercise design objectives are focused on improving understanding of the emergency transportation fuel set-a-side response concept, identifying gaps or problems with policy and procedures.

The State Operations Center (SOC) initial set of objectives during the first Operational Period in the development of the Incident Action Planning process provide the foundation for development of this

tabletop exercise. The below listed objectives were developed and selected by the Exercise Design Team Members for the table top exercise.

State Operations Center (SOC) Initial Planning Objectives E+2 hrs

1. Support the safety and security of all first responders and the public. (ALL)
2. Provide support to health and medical services for survivors as required. (CA-ESF8)
3. Conduct rapid needs assessment to prioritize and execute patient evacuation and movement. (CA-ESF1/CA-ESF8)
4. Reduce hazards by suppressing fire and contain hazardous materials. (CA-ESF4/CA-ESF10)
5. Conduct rapid needs assessment to provide and execute patient evacuation and movement. (CA-ESF8)
6. Conduct rapid needs assessment for critical infrastructure/key resources. (CA-ESF5/CA-ESF12)
7. Conduct rapid needs assessment to provide mass care and accessible shelter operations to include animals. (CA-ESF6/CA-ESF11)
8. Develop robust incident management organizations to optimize lifesaving operations. (All)
9. Conduct mass fatality operations. (CA-ESF13)
10. Develop and implement a joint strategic information communications plan to disseminate and create accessible and actionable public messaging. (CA-ESF2/CA-ESF5)
11. Identify, prioritize and conduct debris removal and clearance operations. (CA-ESF3/CA-ESF7)
12. Prioritize and re-establish critical lines of movement (multimodal). (CA-ESF1/CA-ESF3/CA-ESF7/ CA-ESF 12)
13. **Establish emergency power and fuel lines of supply. (CA-ESF7/CA-ESF12)**
14. Conduct rapid needs assessment to identify critical environmental risks and impacts. (CA-ESF10)

EXERCISE EXPECTATIONS

Emergency Transportation Fuels Set-A-Side Program Discussion Based TTX design objectives are focused on improving understanding of the Multi-Agency Coordination System (MACS) and use of a dynamic/unified team response concept, identifying gaps or problems, and/or achieving improved readiness.

PARTICIPANTS

- ***Players*** respond to the situation presented based on expert knowledge of response procedures, current plans and procedures in place in their agency for emergency transportation fuel reserves or recourse support.
- ***Facilitators*** provide situation updates and moderate discussions. Subject Matter Experts (SME's) and facilitators provide additional information to resolve questions as required during the tabletop exercise.
- ***Subject Matter Experts*** *(SME)* are similar in roles and responsibilities of the Emergency Transportation Set-A-Side Program in responding to a catastrophic earthquake in southern California. SMEs help the facilitation providing technical expertise by answering players' specific questions about their agencies roles, policies while responding or supporting to this type of incident.

Participating Agencies will be as follows:

- Cal OES/CUEA
- CEC
- NASEO Members
- Observers

EXERCISE STRUCTURE

This will be a multimedia, facilitated tabletop exercise. Players will participate in the following set structure:

- Introduction/Overview
- Exercise Objectives to Improve Core Capabilities
- Background - Southern CA Earthquake Risk
- Operational Planning Overview/Scenario
- Major Impacts
- SOC Initial Planning Objectives
- Information Collection Plan/Situational Awareness
- Direct Impacts to Western States Fuel Flow
- Fuel Infrastructure Damage
- Multi-Agency Coordination (MAC) Group Decision Making Process
- Open Discussion about the MAC Decision Making Process
- Public and Private Partnerships
- Best Practices and Lessons Learned
- Hot Wash (HW)

Each exercise participant will receive this Participant Handbook, which provides operational planning information, a written scenario, impacts to fuels and a Multi-Agency Coordination (MAC) decision making process. As the scenario is set, a series of questions that highlight pertinent issues and concerns for the emergency transportation set-a-side program is asked. These questions are supplied as a catalyst for the group discussions; participants are not required to answer every question, nor are they limited to those topics. Participants are encouraged to use this Participant Handbook as a reference throughout the exercise.

EXERCISE GUIDELINES

- This is an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond based on your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from training.
- Decisions are not precedent setting and may not reflect your organization's final position on a given issue. This is an opportunity to discuss and present multiple options and possible solutions.
- Assume cooperation and support from other responders and agencies.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response and preparedness efforts. Problem-solving efforts should be the focus.
- Feel free to interact with other agency representatives to get answers when needed.

ASSUMPTIONS AND ARTIFICIALITIES

In any exercise a number of assumptions and artificialities may be necessary to complete play in the time allotted. During this exercise, the following apply:

- The scenario is plausible, and events occur as they are presented.
- There is no "hidden agenda", nor any trick questions.
- All players receive information at the same time.

SCENARIO

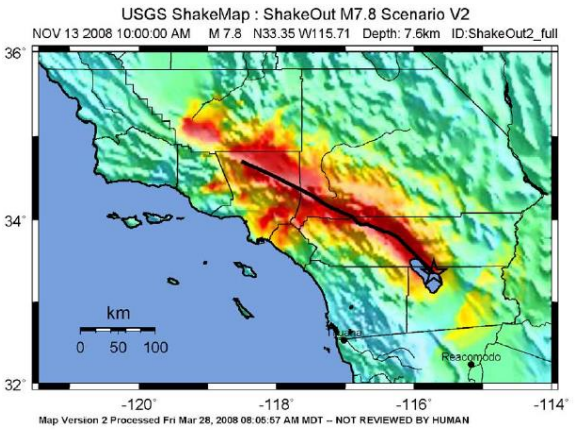
BACKGROUND

The Southern California Catastrophic Earthquake Response Plan Operation Plan 2011 (OPLAN 2011) provides a coordinated state/federal response to a catastrophic earthquake in Southern California. This OPLAN is the result of more than 1500 emergency management professionals determining how best to use the combined capabilities of the private sector, non-governmental organizations (NGOs), local state, tribal and federal resources to respond to a magnitude 7.8 earthquake on the southern San Andreas Fault.

SITUATION

Planning assumptions are based on the California Geological Survey and the United States Geological Survey's ShakeOut Scenario of 2008. While an actual earthquake will almost certainly be different this scenario provides a baseline point of departure from a major Southern California earthquake event. The southern San Andreas Fault has generated earthquakes of magnitude 7.8 on average every 150 years—and on a portion of the fault that ruptures in the ShakeOut Scenario, the last earthquake happened more than 300 years ago. The most critical damage occurs to Interstate 10 in the Coachella Valley and in the San Gorgonio Pass, Interstate 15 in the Cajon Pass, California (CA)-14, CA-111, CA-62, Box Canyon Road, and Big Pines Highway. Other disrupted lifelines include fiber optic cables (90 crossings), petroleum and natural gas pipelines (39 crossings), railroads (21 crossings), aqueducts (32 crossings), and overhead electric power transmission lines (141 crossings).

The plan describes strategies to address the effects of a magnitude 7.8 earthquake on the southernmost segment of the San Andreas Fault, between the Salton Sea and Lake Hughes, including fault offsets, landslides, liquefaction, and fires that impact eight (8) counties in Southern California: Imperial County, Kern County, Los Angeles County, Orange County, Riverside County, San Bernardino County, San Diego County and Ventura County.



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Figure 1: USGS Shakeout Scenario ShakeMap

RESPONSE MISSION

The mission of the unified effort of local, state, federal, tribal and private sector emergency response is to support the needs of the impacted community by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery.

CRITICAL CONSIDERATIONS AND ASSUMPTIONS

Basic services, including transportation, healthcare, water, power, and communications, will be significantly disrupted following a catastrophic earthquake in Southern California. These considerations are described in detail in Annex B. Critical Assumptions were used to gain a better perspective on the impact and the challenges emergency responders would face. The OPLAN includes details about the critical assumptions organized by objective.

EXECUTION

The OPLAN reflects the Senior Leaders' intent to employ a joint State/Federal Unified Coordination Group (UCG), using Incident Command System (ICS) concepts and principles consistent with the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS), to accomplish response activities consistent with the priorities of the Governor, sovereign tribal nations, the local governments, the private sector and the objectives set forth in this OPLAN. The figure below outlines the basic Incident Command Systems (ICS) structure and responsibilities of the Joint State/Federal organization.

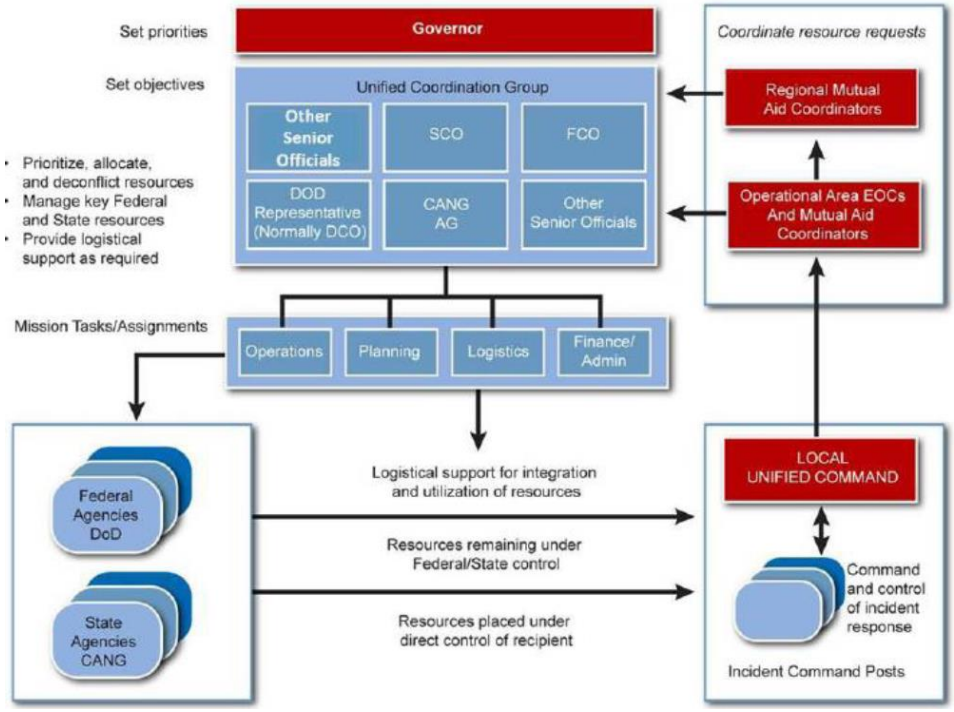


Figure 2: Basic Structure and Responsibilities of the Joint State/Federal Organization

OPERATIONS PLAN (OPLAN) OBJECTIVES

- Establish and maintain functional and interoperable communications for responders.

Coordination and Communications:

- Validate and provide internal and external public messaging.
- Adopt an emergency management structure that manages resource shortages.
- Establish air operations for emergency response and damage assessment.

Emergency Services:

- Conduct search and rescue operations.
- Reduce hazards: Suppress fire, contain hazardous materials.
- Conduct safety assessments.
- Provide safety, security and support to emergency response operations.
- Provide health and medical Services:

Health and Human Services:

- Provide acute care - hospital/Emergency Medical Services (EMS).

a. Provide chronic care – medical special needs, mental health.
b. Execute patient evacuation/movement.
c. Maintain public health (food, water, vector control, food and water quality inspection, surveillance).

- Provide care and shelter, including animals.
- Conduct mass fatality operations.
- Support mandatory and self-evacuations, including logistical needs.
- Stabilize and provide critical utilities for priority infrastructure: water/wastewater, power, communications and natural gas.

Infrastructure:

- Establish lines of supply: sea ports, airports, railroads, and roads.
- Supply emergency water and sanitation needs for response operations.
- Establish emergency power and fuel lines of supply.
- Conduct debris clearance and disposal.

MISSION ESSENTIAL FUNCTIONS (MEF) TASKS

The following regional objectives, focus on functional area concepts of operations and identify mission essential priorities for response operations following a catastrophic earthquake. Each objective area listed below corresponds to an Appendix to Annex C (Operations), Annex D (Logistics), Annex F (Public Messaging), or Annex K (Communications). Further breakdown by tasks are contained in each Annex and Appendix.

MEF 1: Coordination and Communications - Establish and Maintain Functional and Interoperable Communications for Responders.

Support Objectives: The state prioritizes communication requests for support in the State Operations Center (SOC) and directs state mobile using the mutual aid system based on incoming assessments and priorities. Shortfalls that cannot be filled using the mutual aid system are forwarded to the Joint State/Federal Operations Section to be filled by federal assets. Federal assets to include Mobile Emergency Response Systems/Support (MERS) and DoD assets immediately deploy to designated Staging Areas to support federal emergency response operations and fill state communication shortfall requests received in the Operations Section in accordance with established priorities.

MEF 2: Validate and Provide Internal and External Public Messaging.

Support Objectives: The earthquake damage to most conventional public messaging methods will require the use of a variety of innovative communications methods to convey public safety messages, evacuation instructions, sheltering and other critical information. No viable method will be ruled out, particularly during the immediate response phase. The local Emergency Operations Centers (EOCs) and PIO will deliver targeted public messages to the affected populations using all available means with assistance provided by the JIC located at the Joint Field Office (JFO). Response to media inquiries and legislative affairs for damage assessment statistics and estimates will include news conferences and briefings, news releases and statements from state and federal officials on live programming. EOCs and the PIO will publicize the status of any emergency or disaster declarations, the types of assistance available to emergency-disaster survivors and the locations of Local Assistance Centers (LACs) or the Federal Disaster Recovery Centers (DRCs). Federal ESF15 components will be deployed immediately to augment and support state and local emergency public information efforts with JIC operations, community relations and international affairs. Public messaging will be disseminated from the JIC using a phased approach to ensure external messages are accurate, coordinated and consistent.

MEF 3: Adopt an Emergency Management Structure that Manages Resource Shortages.

Support Objectives: Task organization for a catastrophic earthquake is consistent with the NRF, NIMS, and the California/Federal Emergency Management Agency (FEMA) Region IX Concept of Operations as shown in Annex A. This organization is also consistent with the California State Emergency Plan of 2009.

MEF 4: Emergency Services - Establish Air Operations for Emergency Response and Damage Assessment.

Support Objectives: Air operations are established through a phased approach and coordinated by a joint state and federal Air Operations Branch. An Air Operations Branch will be established to coordinate and manage strategic aviation missions including Supply, Airlift and Air Evacuation Operations from outside the affected area to augment local response capabilities. Tactical air operations are conducted by local responders and include helicopter and fixed-wing operations inside the affected area. Initial assessments of critical air operation infrastructure, airfields, communications assets, and aids to navigation, will be conducted to better understand the scope of damage done to the area aviation capability. Airfields capable of supporting air operations and staging of resources will be identified, and emergency airfield repairs will be completed by organic airfield assets with repair effort augmented by federal support as requested.

MEF 5: Conduct Search and Rescue Operations.

Support Objectives: A mixed deployment concept of Urban Search and Rescue capabilities will be used, with some assets sent directly to affected local jurisdictions and some that will be centrally controlled from mobilization sites. Those assets that are centrally controlled will remain under the operational control of the UCG for surge capability needed for potential aftershocks or other simultaneous response requirements. The Fire and Rescue Mutual Aid system will activate all task forces native to California which are on a “first-up, on call” system. Facilitating international aid for US&R support is the responsibility of the Department of State; however international US&R assets will be operationally coordinated through FEMA.

MEF 6: Reduce Hazards: Suppress Fire, Contain Hazardous Materials.

Support Objectives: Fire service includes all public and private entities that assist the state in firefighting activities. Under order by the Governor, using the California Emergency Services Act, all of these fire protection agencies become an organizational part of Fire Rescue Division. This division acts as the primary coordination authority for mutual aid activities for the state. ESF 4 combines to manage and support all firefighting activities on federal lands and urban areas. Hazardous material clean-up and disposal is coordinated by ESF 10 and the formation of a Joint Hazardous Materials Task Force that includes the Environmental Protection Agency (EPA), DoD, ESF 4 and 10, as well as state, local, and the United States Coast Guard (USCG) participants.

MEF 7: Conduct Safety Assessments.

Support Objectives: Following an earthquake, the SOC activates Safety Assessment Program participants. All assignments for this scenario will be accomplished utilizing the Incident Command System (ICS) structure of the UCG. The Emergency Management Assistance Compact (EMAC)/SOC Mission Tasking Coordinator, following SOC procedures, normally requests and coordinates out-of-state SAP resources under direction of the Operations Section Chief.

MEF 8: Provide Safety, Security and Support to Emergency Response Operations.

Support Objectives: Safety and security relies on existing systems and is used first to fill identified security shortfalls. When security requirements cannot be met by local law enforcement, additional in-state assets including California Military Department and neighboring states provide assistance in

accordance with Title 32 and EMAC agreements. Local law enforcement officials handle complex incidents including crowd control and looting. The California Highway Patrol manages evacuations and traffic flow. The California Military Department augments civil law enforcement agencies by providing security forces for staging areas, shelters, Points of Distribution (PODs) and critical infrastructure as requested. Additional federal support for law enforcement to handle less complex incidents, including traffic control and commercial airport security, is provided by ESF 13.

MEF 9: Health and Human Services - Provide Health and Medical Services (Life-saving is the number one priority).

Provide Acute Care

Support Objectives: The overall strategy to meet the medical needs of the impacted populations requires integrated plans for acute care, patient movement and chronic care. ESF 8 will coordinate protection, recovery, and sustainment of the acute care infrastructure, to include critical supply lines (i.e., fuel, water, pharmaceuticals, and medical supplies). Due to the magnitude of this event, acute care resources will be coordinated from within California, other states, non-governmental organizations, international assistance and with the federal government. Immediately following the event, California Health and Human Services Agency (CHHS) - ESF 8, including California Military Department, and ESF 8, led by the US Department of Health and Human Services (HHS) and including DoD, will implement and direct the acute care response in support of OAs. ESF 8 will deploy available acute care resources into the impacted areas and begin coordinating additional resources to meet the acute medical need of the impacted populations.

Provide Chronic Care

Support Objectives: The ESF 8 is responsible for determining chronic care needs and requesting federal support through ESF 8. The State will provide the necessary information needed for federal support of the impacted OAs chronic care needs. The OAs and ESF 8 will conduct self-evacuation and shelter-in-place activities through the long-term care facilities and immediately deploy Federal Medical Stations (FMS) to OAs and other resources to Staging Areas (SAs). The Emergency Prescription Assistance Program (EPAP), Substance Abuse and Mental Health Services Administration (SAMHSA) Crisis Counseling Assistance Program and the Disaster Case Management Contract will be implemented.

Execute Patient Evacuation/Movement

Support Objectives: To support patient movement and evacuation for the impacted OAs, ESF 8 will assign the highest priority to life saving activities; patient movement and evacuation is a lifesaving activity. State and federal resources will be activated to support patient movement and evacuation. Patients will remain within California if possible, and ESF 8 will deploy resources necessary for patient evaluation and stabilization at identified airports.

Maintain Public Health

Support Objectives: CDPH is the lead department within California and is responsible for all environmental and public health activities during response and recovery. All public health missions will be coordinated within the ESF 8 construct by the ESF 8 lead. While most often not a life-saving activity, public health operations provide a wide range of life sustaining activities that begin during response and continue well into recovery. By preventing disease, public health interventions reduce the total number of patients that will seek care in the impacted OAs. Food facilities without power and water will be closed until inspections can be completed after power and water are restored. ESF 8 will conduct initial assessments within the impacted area using local resources and evaluate water quality, deploy mobile laboratories and conduct community assessments only after the situation has stabilized.

MEF10: Provide Care and Shelter, Including Animals

Support Objectives: State and federal ESF 6, 7, 8, and 11 will support local operations with resources and services at shelters, PODs, and areas where people will congregate, as well as provide support to evacuees. Pre-designated sheltering facilities, such as those operated by the American Red Cross (ARC), will be augmented by the use of non-traditional shelter locations. Response operations will be committed to ensuring the needs of all populations, to include individuals with access, functional and other special support needs, are met to the degree possible within general population shelters.

MEF11: Conduct Mass Fatality Operations

Support Objectives: The County Medical Examiners and Sheriff/Coroners are the single authority for fatality management within their OAs. Fatalities will require processing over time and will not occur all at once. All fatality management activities support the local Medical Examiner/Coroners and remain within the county, not crossing county lines. The Coroners will request federal assistance and/or mutual aid. Search and Rescue operations will extract fatalities from damaged buildings and other structures then arrange transport to locations identified by each of the County Coroners. County Coroners and ESF 8 will use existing and surge fatality management infrastructure within the OAs and activate the Coroners' mutual aid system.

MEF12: Support Mandatory and Self-Evacuations, including Logistical Needs

Support Objectives: Evacuation operations will be coordinated at the lowest level possible and every effort will be made to keep evacuees within the shelter system of the affected OA. However, if and when evacuation operations become so large that evacuees must cross county and state boundaries to find shelter or temporary housing or when the Operational Area EOC does not have sufficient resources to support evacuation planning and execution. The California Governor's Office of Emergency Services (Cal OES) Law Enforcement Division as the lead agency for ESF 13/EFS 16, will coordinate all state efforts to support planning and execution for the evacuation. FEMA will assume the role of the Primary and Coordinating Agency for all federal support for evacuation operations. Local jurisdictions are responsible for developing evacuation plans in advance of a catastrophe; only the President or a local or state official with the proper authority can order a mandatory evacuation. It can be assumed, however, that many residents will voluntarily self-evacuate before the order is given. Not all local jurisdictions will have established evacuation plans in place and those that do may still require support from the state and federal government during mandatory or voluntary self-evacuations. In cases where support requirements exceed the local/OA jurisdiction's resources, support will be requested in accordance with the SEMS. The Cal OES Law Enforcement Division will coordinate state level support and request federal support through the SOC who will in turn request federal support from FEMA. FEMA will coordinate the efforts of the other federal ESF supporting agencies for transportation, security and logistic support for large evacuations.

MEF13: Critical Infrastructure: Stabilize and Provide Critical Utilities for Priority Infrastructure - Water/Wastewater, Power, Communications and Natural Gas

Support Objectives: In coordination with the California Utilities Emergency Association (CUEA), FEMA will establish partnerships with the private sector before a catastrophic earthquake occurs. These partnerships will take many forms, e.g., Memorandums of Understanding (MOUs), and Task Forces (TFs), but each will be established to ensure that local, state and federal efforts facilitate the repair efforts of the private sector and to ensure that a coordinated effort leads to the rapid and effective restoration of utility services after the disaster. Key to the successful execution of the mission above is the activation of three important Task Forces: 1) the Cajon Pass, 2) other Critical Infrastructure, and 3) Water and Port Reconstitution TFs. After the disaster occurs, these TFs convene to conduct assessments and adjust plans based on the actual situation. Private sector utility companies immediately execute Crisis Action

Plans in accordance with their operating procedures; however, the TF members help establish priorities and employ state and federal assets and resources (such as heavy lift and security) to facilitate and augment rapid triage of critical infrastructure to restore functional operability.

MEF14: Establish Lines of Supply: Sea Ports, Airports, Railroads, and Roads

Support Objectives: Logistics support will be provided by federal, state, local and private sources, and in accordance with the defined response operations phases. Throughout all phases of the response, transportation and logistics coordination will be a joint responsibility of the State and FEMA. Medical supply lines and logistics will be led by ESF8 with support from FEMA and the California Governor's Office of Emergency Services (Cal OES). This joint operation will emphasize reestablishing all modes of transportation systems in order to facilitate the effective distribution of resources from Incident Support Bases, Staging Areas, shelters, PODs, and other sources. Emphasis will also be placed on the movement or evacuation of people with severe medical needs. This integration will ensure unity of effort and efficient use of transportation assets to deliver required resources. FEMA will issue mission assignments to other federal agencies to provide additional resources and support. Situational awareness of the earthquake's impact on the State's transportation infrastructure will be paramount to implementing a logistical capability for the delivery of response resources and employment of response teams. Movement of resources and people in and around the affected area will be impacted by initial severe damages to ground transportation infrastructure. The overarching logistics strategy will be to focus on delivery of response resources and personnel by air, land, and sea movement through the Ports of Long Beach and Los Angeles and various operable civil and military airfields.

If the State anticipates that its resources may be exceeded, the Governor can request assistance from the Federal Government and/or from other states through mutual aid and assistance agreements such as EMAC. EMAC will be activated when the governor declares an emergency through the Governor's Emergency Declaration. Cal OES coordinates all EMAC requests and does not need to exhaust mutual aid agreements before requesting federal assistance.

STATE AND LOCAL COORDINATION REQUIREMENTS

Cal OES has primary responsibility for coordinating the State's response and liaison between the federal and regional/local Governments and the Private Sector. Cal OES divides operations into three regions and each has a Regional EOC – Southern Region (Regional Emergency Operations Center (REOC)-Los Alamitos), Inland Region (REOC-Sacramento), and the Coastal Region (REOC-Walnut Creek) – which are activated during disaster incidents and are the primary coordination points for the regional/ local governments. The REOCs report to the SOC.

In accordance with California Emergency Services Act and SEMS, all federal resources and support will be coordinated through the State. The Cal OES is the agency with primary responsibility for coordinating the state's response and liaison between the federal and county/local governments.

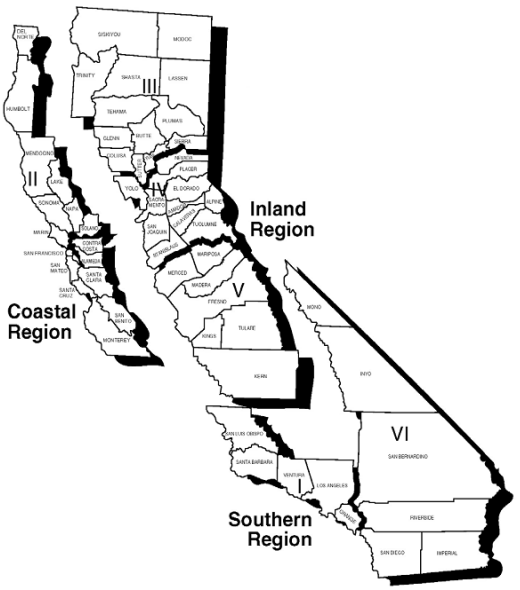


Figure 3: California's Three Geographic Regions

Each of the 58 county governments is also an Operational Area (OA) for emergency services purposes; each has an EOC and is the primary contact/liaison between the State and Local Government. Within each OA, incorporated cities are generally the primary entity responsible for first response during a disaster incident. Cal OES activates the SOC and REOC; FEMA activates the National Response Coordination Center (NRCC) at FEMA Headquarters and the Regional Response Coordination Center (RRCC) in the FEMA Region IX Office in Oakland. Organizational and process descriptions are contained in Annex A.

Key Federal Roles and Responsibilities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act provide the federal government with the authority to provide direct federal assistance in support of states and local jurisdictions. The Federal Government's response/support will be carried out in accordance with the National Response Framework (NRF) and the NIMS.

NGO Coordination Requirements

NGOs are integrated into the individual assistance branch of the joint State/Federal Operations Section; coordination is done by the Unified Coordination Group (UCG). The REOC coordinates when the NGO is working directly with local and regional governments. Voluntary organizations are integrated similarly. Voluntary organizations that request to integrate into the Joint Field Office (JFO) are coordinated by the Joint State and Federal Individual Assistance Branch Director.

Key Decisions Required Executing OPLAN

- ShakeMap of the earthquake incident from USGS.
- The designation of Priority Response Areas and Development of Support Plan.
- Establishment of the UCG.
- Validate Staging Areas for immediate push of resources in accordance with Annex X.
- ICS organizational structure.
- Prioritization for debris clearance at airfields, ports and supply lines.
- Prioritization of resource allocation based on impact and need.
- Subsequent decisions on facilities locations (Initial Operating Facility [IOF], JFO), establishment of facilities, staffing, program priorities, resources, and demobilization are required.

Critical Information Requirements (CIRs)

Senior level decision makers responsible for implementing this plan require this information when the incident occurs:

- Accurate plot of the impacted area and earthquake magnitudes within the impacted area.
- Demographics (including individuals displaced, self-evacuees, injured, and killed) and information on special needs populations.
- Evacuation plans, timelines, and instructions (to include the evacuation of critical facilities such as hospitals and nursing homes).
- Requests and/or need for state and federal assistance.
- Status of declarations and EOC activations.
- Location, capabilities, and number of all deployed response resources including equipment, commodities, and personnel.
- Identification of Governor and national-level priorities.
- Anticipated spread of fires and Hazardous Material (HazMat) contamination.
- Damage to and status of critical facilities, ports, airfields, government buildings, hospitals and infrastructure.
- Potential chemical, physical, and natural hazards that may affect the safety and health of response and recovery workers.
- Status of shelters and their commodities.
- Information on damage to residential dwellings, temporary housing plans, and power restoration timeline.
- Factors that have a significant economic impact.
- Ability of government organizations to continue essential functions and services.

ESSENTIAL ELEMENTS OF INFORMATION (EEI)

Essential Elements of Information are critical pieces of information regarding the event and the environment needed by responding agencies by a particular time to integrate with other available intelligence to assist response agency decision making and management of response operations. EEI and the corresponding roles and responsibilities of participating agencies are detailed in the Incident Action Plan (IAP) and the Incident Information Collection Plan. EEI figure 4 below reflects a detailed listing of information needs that comprise the generalized CIR list and include:

Essential Elements of Information (EEIs)		
Disaster Area EEI: • Boundaries of the disaster area • Access points to the disaster area • Jurisdictional boundaries • Social, economic, and political impacts • Hazard-specific information • Seismic and/or other geophysical information • Weather conditions and forecasts • Historic and demographic information	**Assessment EEI:** • Predictive modeling impact projections • Initial needs and damage assessments • Status of communications systems • Status of transportation systems and critical transportation facilities • Status of operating facilities • Status of critical facilities and distribution systems • Status of energy systems • Status of critical resources and resource shortfalls	**Response and Recovery EEI:** • Status of emergency or disaster declarations • State Emergency Function (EF)/Federal ESF activations • Major issues/activities of ESFs, EFs, and other functional areas • Key state and federal personnel and organizations • Remote sensing activities • FCO/SCO priorities • Recovery program statistics • Donations and volunteers • Status of upcoming activities and events • Status of efforts under State/Federal authorities

Figure 4: Essential Elements of Information

Information Collection Plan/Training & Exercise (Operationally Based) - Figure 5 outlines that process.

- ❑ **Common Operational Picture** (fatality/injury/missions) geographic analysis
- ❑ Event Summary
- ❑ State, Federal, Tribal, County, Local Proclamations
- ❑ ESF5 - Activations
- ❑ Weather Forecast
- ❑ IAP Priorities and Objectives
- ❑ Incident Map (ESF specific – fire and rescue, law, transportation, etc.)
- ❑ ESF4 - Fire Urban Search & Rescue Analysis
- ❑ ESF13 - Law Search & Rescue, Evacuation Geographic Analysis
- ❑ ESF6 - Care and Shelter (DAC/LAC-human/pet/livestock)
- ❑ ESF7 - Critical Resources and Commodity Distribution
- ❑ ESF8 - Health and Medical Facilities Critically Impacted
- ❑ ESF1 - Transportation Analysis (routes/airports/rail/sea/mass transit)
- ❑ ESF3 - Debris Removal (hazmat waist, landfills, SA, routes)
- ❑ ESF10 - HazMat/Hazards, Vulnerabilities, Risk (response/public safety)
- ❑ ESF2 - Communication Analysis
- ❑ OPNS - Branch/Division Boundaries Organizational Structures/Charts
- ❑ IA-ESF14 - Damaged/Destroyed Facilities (safety assessment analysis)
  - Residential/Mobil Home/Commercial Analysis
- ❑ ESF3 - Dam/Water Systems Analysis
- ❑ ESF8 - Drinking Water Distribution Centers
- ❑ ESF11 - Food and Agriculture Distribution Centers
- ❑ ESF12 - Utilities/Critical Infrastructure Analysis
- ❑ Other as requested and pre-incident products

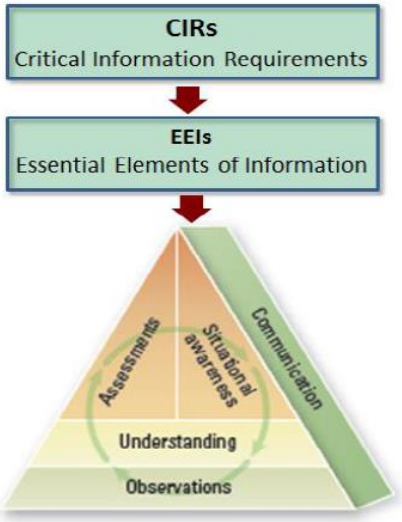


Figure 5: Information Collection Plan

CONCEPT OF OPERATIONS (CONOPS)

The Concept of Operations is divided into **three distinct phases**: Figure 6 outlines Normal Operations, Response, and Long-Term Recovery. Phase 2, Response, is further divided into Activation (Immediate Response), Deployment and Employment, and Sustained Response.

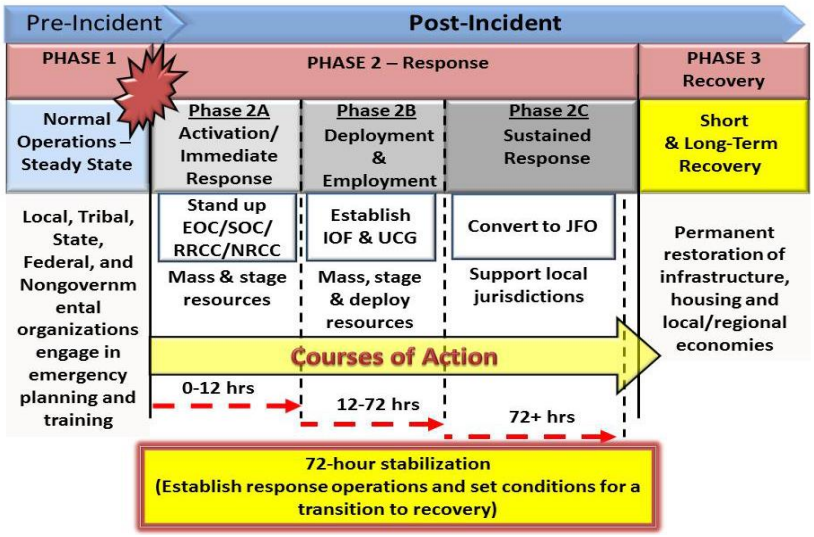


Figure 6: Operational Phases of earthquake response

PHASE 1: Normal Operations

The purpose of Phase 1 is to coordinate with private, non-profit, local, state, tribal and federal stakeholders to prepare for a catastrophic earthquake. Actions include planning, organizing, training, equipping, exercising, evaluating and taking corrective actions.

PHASE 2: Response

Damage to citizens and structures are massive as summarized below:
Injuries, Deaths and Structural Damage:

- 1,800 deaths
- 53,000 injuries
- 300,000 buildings significantly damaged (1 in 16)
- 1,600 ignitions requiring a fire engine, 1,200 exceed capability of first engine response
- 542,000 individuals require mass care and shelter, to include those with access, functional and other special support needs. This includes 10% (50,000+) toddlers and infants
- 2.5 million individuals shelter-in-place and need basic resource support (e.g., food and water)
- 267,000 displaced household pets
- 4,500 rescues
- $213 billion estimated damages

The damage is compounded by fires that occur due to down wires and ruptured gas lines. Debris hampers response efforts due to landslides, damaged buildings, roads and power lines that block assess points. In additional to the debris, many of the water mains are ruptured or damaged make response effort difficult to say the least.

Local and Regional Emergency Management Activation

Cities and counties activate their Emergency Operations Center (EOC) at the highest level. The EOCs first priority is to gain situational awareness of the incident. Within the eight counties impacted, EOCs will require incident management support personnel, subject matter experts/technical specialists. Primary services are hampered due to family care issues, road damage and debris.

State and Federal Activation

Cal OES Warning Center initiates actions to stand up the State Operations Center (SOC) at Mather at the highest activation level, while FEMA Region IX activates the Regional Response Coordination Center (RRCC) in Oakland reporting/coordinating with the National Operations Center (NOC)/National Response Coordination Center (NRCC) alerting/notifying federal primary Agency/Department Emergency Support Functions (ESFs) Executives and coordinating support.

Transportation Networks

Airports, working with the Federal Aviation Administration (FAA), initially divert incoming air traffic and hold planes on the ground until damage to critical operational equipment and runways can be accessed. Crews immediately attempt to access damage. Most experience power disruptions and have to shift to emergency power generators for essential operations.

Ports

The Ports are not in a heavy shake area and sustain limited damage. United States Coast Guard (USCG) conducts inspections of the Ports and channel surveys while Caltrans, Department of Transportation (DOT), Federal Railroad Administration (FRA) and contractors conduct inspections on port bridges. The ports resume operations once they verify shipping safety. However, port operations have a heavy reliance on the power infrastructure, roads and rail networks to on/off load goods to be shipped to their final destination. The large cranes that off load containers will most likely be damaged; compounding the problem are the road/rail networks disruption, power outages and debris removal, all causing a backlog of containerized cargo, bulk fuels and natural gas offloading. The Ports of Los Angeles (POLA) and Port Long Beach (POLB) handle 44% of the imports to the United States and 80% of the container traffic, so keeping these ports open and operational is of national importance.

Roads

The Southern California road system comprises hundreds of thousands of bridges and overpasses. While some problems, like debris, can be quickly removed by Caltrans and local debris removal contracts. Repairs due to fault offsets or collapsed overpasses will disrupt traffic for months.

The FEMA National Response Coordination Center (NRCC) coordinates a “push” of federal resources during phases 2A (Activation, 0-24 hours) and phase 2B (Deployment and Employment, 12-72 hours). A transition to a “pull” of resources occurs during phase 2C (Sustained Response, 72+ hours) as requirements are more clearly defined.

During Phase 2, avenues of approach to the incident area are determined based on infrastructure damage to transportation corridors. Available air, land, and sea avenues of approach are used to push federal teams and resources.

Unity of Effort and Unified Command

The “Unified Coordination Group” concept contained in this plan extends into the Operations organization to the Branch and Division/Group level. As a result FEMA operations may have joint positions (FEMA, state, and/or local) throughout the organization.

Multimodal Transportation Corridors – Response

Figure 7 below outlines Phase II multimodal transportation phased in approach.

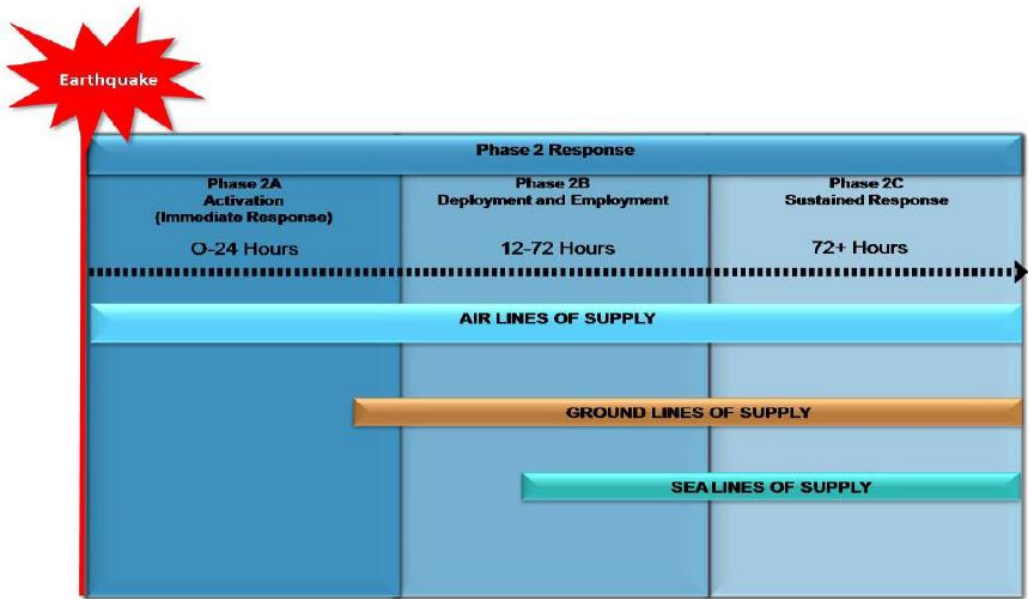


Figure 7: Avenues of Approach

Phase 2A: 0-24 Hours – Activation (Immediate Response)

Communications, Search and Rescue (SAR), firefighting, medical care and evacuation, and mass care are prioritized and carried out by local responders in each Operational Area (OA). Staging Areas (SAs) are determined at the time of the incident. Resources are forward deployed by the state and federal governments in support of modal operations. These facilities are part of multi-modal concept of operations. Facilities are chosen due to their earthquake survivability, suitability for large scale air operations (including offloading and staging of teams, equipment and material) and their proximity to the incident area.
The Department of Transportation (DOT) coordinates with the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) to establish ground transportation routes. DOT works with the Federal Aviation Administration (FAA) to determine operational status of commercial airfields and reports this to the FEMA RRCC and State Operations Center (SOC). Airspace control is managed by the FAA with support from the National Guard, Customs and Border Protection (CBP), and the Department of Defense (DoD).

An Air Operations Branch is initially established at the SOC and supported by federal partners including, but not limited to DoD, CBP, and the USCG. The triage of critical infrastructure systems to enable communications, water distribution, power generation, fuel refinement, and air operations is prioritized by the UCG as temporary sources of water, power, and fuel are acquired and consumed by local jurisdictions in the incident area. The Operations Section of the UCG works closely with the State and private sector to coordinate triage of critical systems.

Functional Geographic Operations Set-up

OPLAN has designated the below organizational level Branches that have functional and/or geographic responsibility for major parts of the Operations or Logistics support (Stage Areas) functions.

Figure 8 below, depicts branch and divisional boundaries to support response operations.

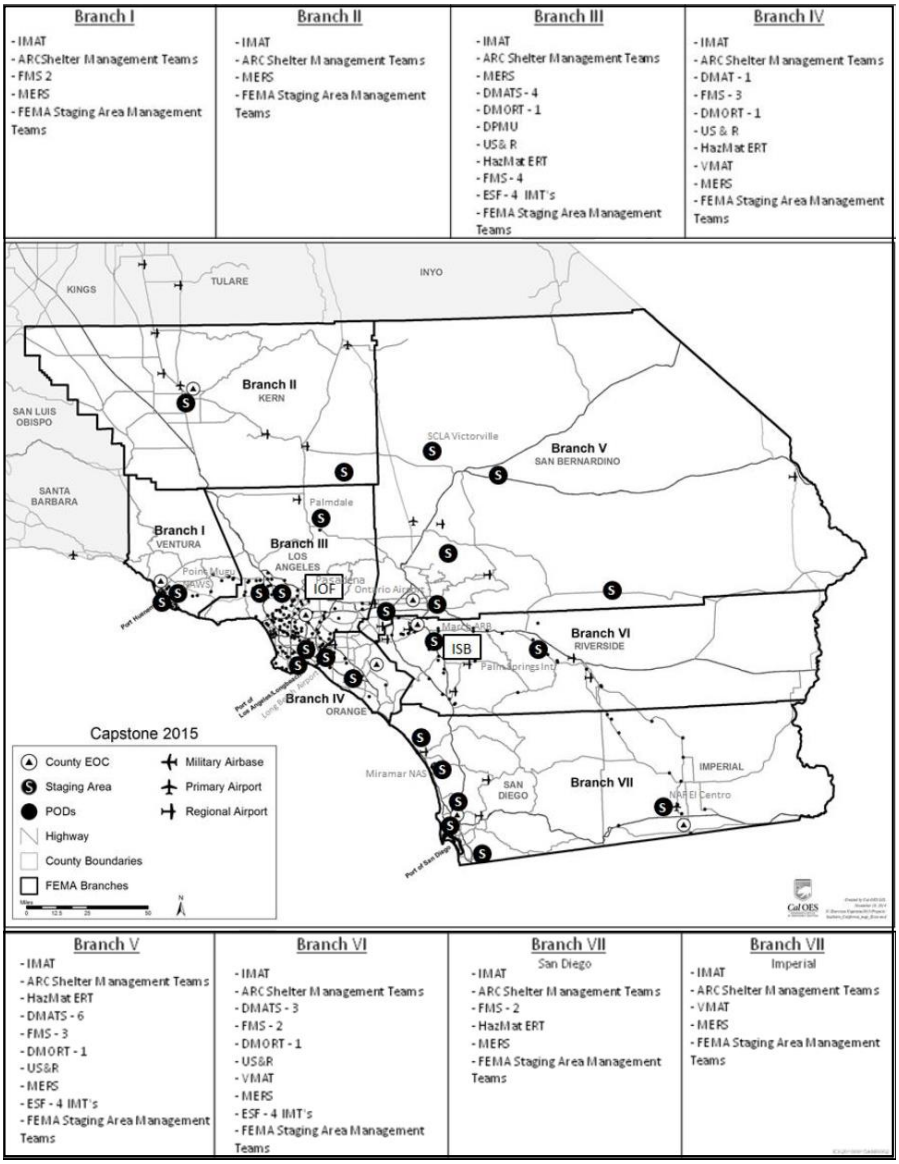


Figure 8: Branch Boundaries to support response.

Division boundaries are established by the joint State and Federal Operations Section in close coordination with OA emergency managers. State and federal representation within Divisions are established to communicate needs/coordinate employment of state and federal resources in accordance with objectives established by the UCG. Division Supervisors are responsible for the management and supervision of assigned resources within their geographical areas, reporting on the progress of operations, the status of assigned resources, and their portion of the IAP.

Phase 2B: 12-72 Hours – Deployment and Employment

Phase 2B occurs as Cal OES and FEMA resources are deployed and employed in the affected area.

- State and federal resources are deployed and employed based on impact and need.
- Ground deformation, fire, debris, and traffic limits ground movement in Phase 2A and 2B. The CHP and Caltrans manage ground avenues of approach and report status of road systems.
- Strategic airlift resources arrive at staging areas and are offloaded.

- Maritime ship-based staging and operations may be established to deliver temporary fuel, water, and ship-based care. The USCG leads port reconstitution efforts to re-establish port continuity.
- Cal OES and FEMA deploy Branch Directors to serve in each OA EOC. The mission of State and Federal Branch Directors, work with OA emergency managers to articulate response requirements and report priorities to the Operations Section Chief. Branch Directors are supported by State and FEMA support staff and ESF representation. They are responsible for supervising branch operations, assigning specific work tasks to Division Supervisors, developing and implementing portions of the Incident Action Plan (IAP), and communicating and resolving logistical problems.

Phase 2C: 72+ Hours – Sustained Response

During Phase 2c, local OA Emergency Operations Centers in Kern, Ventura, Los Angeles, San Bernardino, Riverside, Orange, San Diego and Imperial maintain communications infrastructure for responders and work to establish public lines of communication. The OA EOCs transition operations within the incident from SAR and firefighting, to maintaining law enforcement and mass care services.
OA emergency managers adjudicate available resources based on impact and need and articulate requirements to the Joint State and Federal Operations Section. The SOC transitions to a support role when the UCG moves to the incident area and establishes command presence at the JFO.

The JFO is established and the UCG assumes operational control of the incident establishes and maintains a regular Operational Period and conducts Incident Action Planning. Regular operational periods are established and the Joint Incident Action Planning process begins at the JFO. FEMA Region IX RRCC maintains operational readiness and supports the UCG by filling resource requests. Available communications equipment organic to the impacted area may be functional and will be supplemented by additional state and federal equipment and personnel, including MERS assets. Communications equipment and personnel support federal responders and state and federal operations in Branches and Divisions. Federal Branch Directors and Division Supervisors continue to work with OA and local emergency management officials to communicate needs through the chain of command.

Lines of supply from staging areas to hospitals, schools, shelters, and other mass care sites are established and maintained by FEMA Logistics in coordination with Branches. Joint State/Federal Planning Section develops Continuity of Operations Plans (COOP) in the event of aftershocks. State Agencies continue to deploy resources and commodities to staging areas identified by the joint State/Federal Operations Section. Joint State/Federal Operations Section Chiefs continue to prioritize and allocate resources from Staging Areas to Branches based on impact and need.

Air Operations Branch continues strategic airlift missions and coordinates with state and local emergency managers and health officials to prioritize medical evacuations. Base camps are maintained and demobilized as infrastructure is repaired at the Ports of LA and Long Beach, Metropolitan Water District facilities, the Cajon Pass, and select staging areas. Power, water, and fuel systems and associated critical infrastructure are repaired and restored to a functional level (see private sector coordination). PODs and shelters shutdown as able as critical systems are repaired. The Joint State/Federal Operations Section continues to issue Mission Assignments (MAs). MAs may be extended beyond 60 days should services be required.

Survivors are supported by establishing a network of hubs and spokes depicted in figure 9. Staging Areas support hospitals, mass shelters (arenas/stadiums/fairgrounds/raceways), open spaces, and Points of Distribution (PODs) as determined by the State and OA emergency managers.

Figure 9: Hub and Spoke Concept.

Pre-established joint State/Federal messaging, both within and outside the incident area, is delivered to media outlets by ESF 15 and coordinated with local jurisdictions in accordance with Annex F.

Private Sector Coordination

This OPLAN has developed joint private sector and government Task Forces for Water, Port Reconstitution (water, power, staging), and the Cajon Pass and Other Critical Infrastructure (power/fuel/ communications, railroads) the Task Forces are activated by the joint State/Federal Operations Section to facilitate triage of critical infrastructure systems (**Figure 10**). These are:

1. The Cajon Pass and other Associated Critical Infrastructure Task Force:
   - Lead: California Utilities Emergency Association/ESF-3

Mission: Coordinate and facilitate the rapid and efficient repair of private sector critical infrastructure (Power, Communications, Natural Gas and other Fuels, and Railroads) that passes through the Cajon Pass and other critical locations damaged by the earthquake.

End State: Restoration of basic services (Power, Communications, Natural Gas and other Fuels, and Rail Service) to the affected population and surrounding areas.

2. Water Conveyance Task Force:
   - Leads: Department of Water Resources and the Metropolitan Water District of Southern California.

Mission: Coordinate and facilitate the rapid and efficient repair the critical water infrastructure that provides water resources to affected population in Southern California and surrounding areas.

End State: Restoration of uninterrupted basic waster services to the affected population and surrounding areas.

3. Port Reconstitution Task Force:
   - Lead: United States Coast Guard

Mission: Ensure functionality of the Ports of Los Angeles and Long Beach following a catastrophic earthquake in order to ensure short term and long term recovery for the LA Region and United States.

End State: Restoration of normal port operations for Los Angeles and Long Beach ports with both ports supporting emergency response and commercial operations.

Task Forces - focus on reconstitution of critical systems to support response.

Operations Section Infrastructure Branch

The figure below outlines the operations section organizational structure for the three critical Task Forces required to restore vital lifelines and services throughout the impacted area.

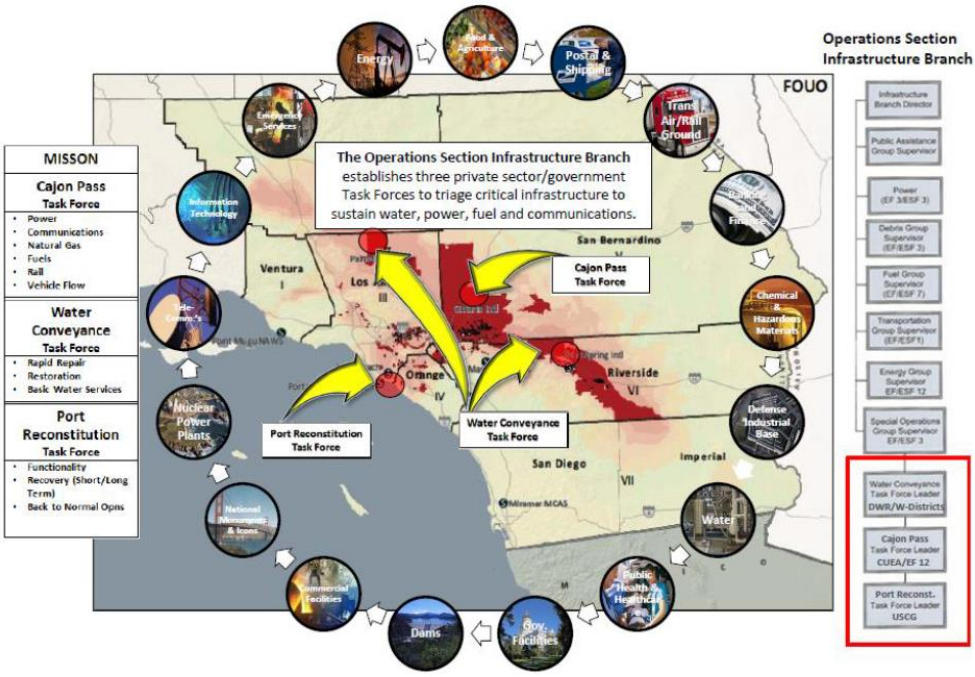


Figure 10: Task Forces focus on reconstitution of critical systems to support response.

End State: Phase 2c ends when response activities set conditions for long term recovery. Sheltering is transitioned to temporary housing including rebuilt or repaired homes or other temporary housing. The Ports of LA and Long Beach are operating at full commercial capability while maintaining response operations. The Cajon Pass is operational and other critical conveyance infrastructure for natural gas, power and communications is functional. Major water conveyance structures including the Arizona Aqueduct and the California Aqueduct are functional and supplying water to major water treatment facilities in the incident area. Temporary and repaired power generation infrastructure enables communications, water and fuel distribution, sanitation, and increased public messaging**.**

Phase 3: Long Term Recovery

Private sector, local, state, tribal and federal actions are required to restore services, continue government operations, and promote economic recovery following a catastrophic earthquake. All life-saving activities have been completed.

End State: Phase 3 ends when recovery activities have set the conditions for long-term community recovery. Temporary housing has transitioned to rebuilt homes or other permanent housing, schools are open, tourism is re-established, and critical facilities and infrastructure are self-sustaining through normal transactions.

INITIAL FUEL INFRASTRUCTURE DAMAGE REPORT

Situational Assessment - Fuel Infrastructure Damage

- Chevron El Segundo Operating ALL other Refineries are DOWN.
- Terminals are DOWN
- Significant damage to SoCal pipeline infrastructure (leaks, fires, etc.)
- For Southern California resource <40% of on-site inventory is available or accessible (dependent on status of the power infrastructure)
- UNEV Pipeline is down that supply 60,000 barrels per day impacting Nevada, Utah, and Arizona (down time estimates 42 days).
- Northern California resources at the time of the event are the only reliable source of inventory for 7 days.
- Key delivery options will be impacted by road situation around the disaster area.

Direct Impacts to Western States Fuel Flow

Figure 11 depicts fuel flow locations that are directly impacted with a 7.8 m earthquake in southern California.

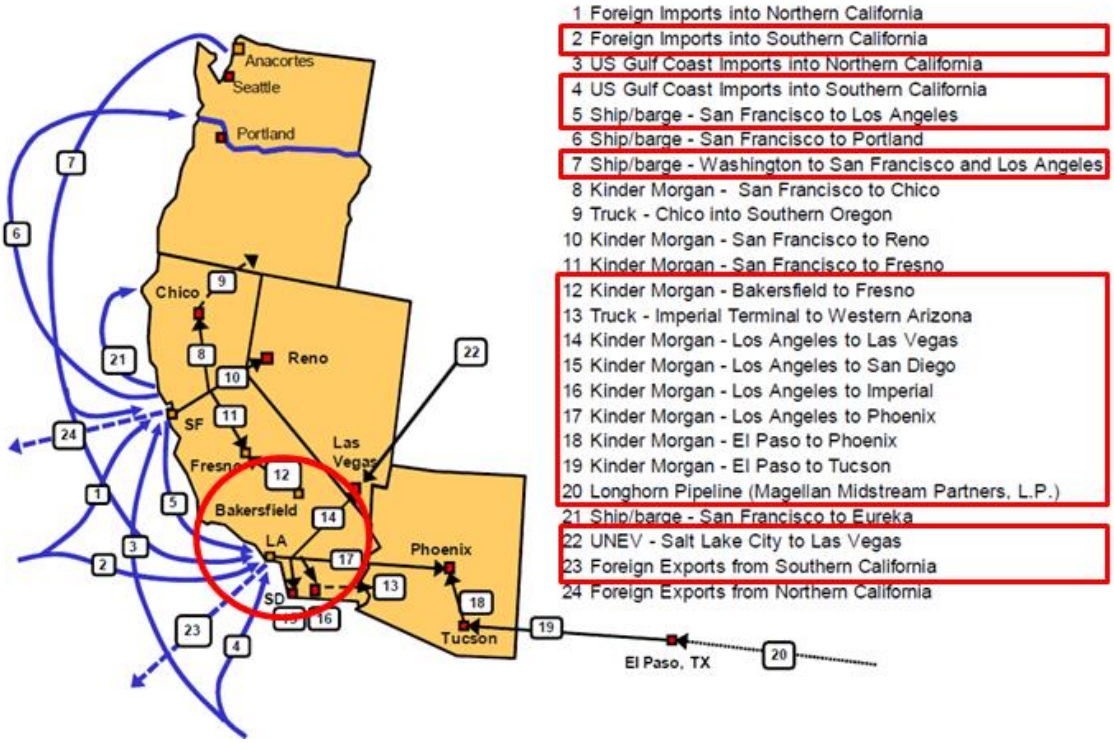


Figure 11: Western United States Fuel Flow Locations and Routes

CALIFORNIA EMERGENCY TRANSPORTATION FUELS FACT SHEET ANALYSIS

Background: This fact sheet supports the joint state/federal analysis for earthquake recovery efforts for the emergency transportation fuels set-a-side program. This document describes an overview of the Southern California transportation fuel supply and distribution systems that will be impacted as a result of a southern California catastrophic earthquake, including the regional dependencies of Nevada and Arizona.

Fuel Infrastructure

The petroleum fuels infrastructure and distribution system falls into five main categories: refineries, pipelines, distribution terminals, marine facilities, and retail stations.

Refineries

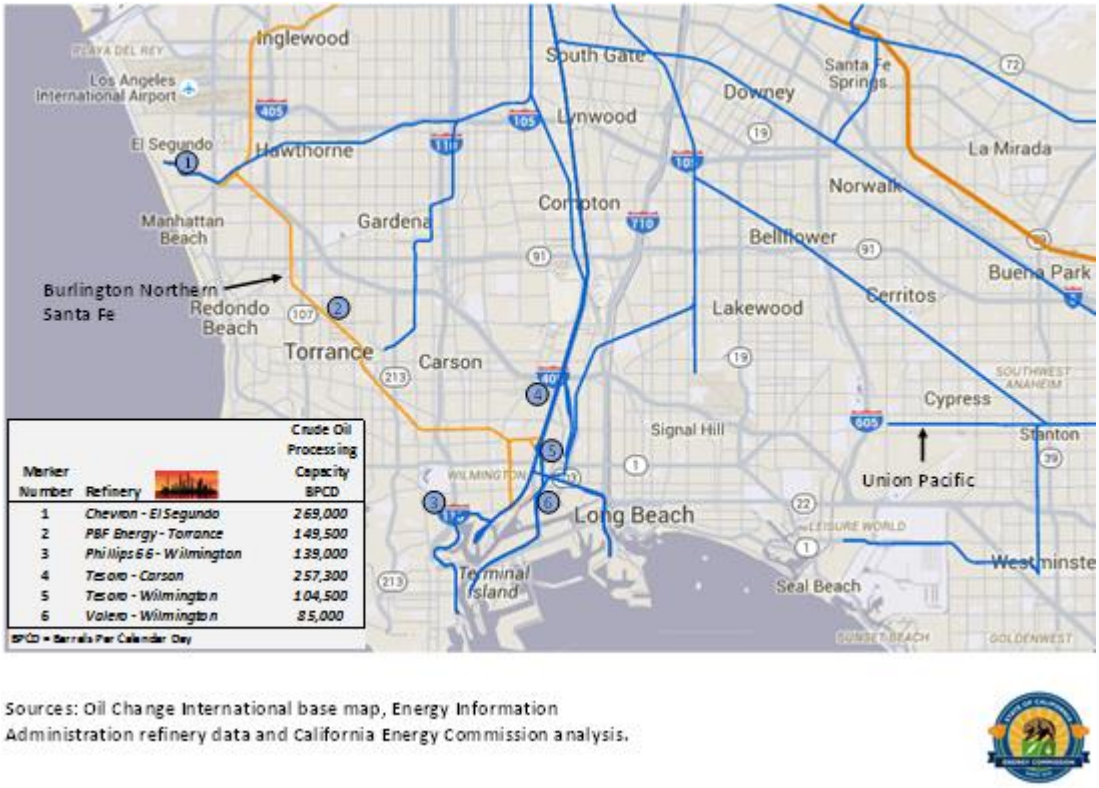
There are six sophisticated petroleum refineries in Southern California that produce both gasoline and diesel fuel meeting the state's more stringent fuel specifications. In addition, there are some smaller facilities that provide other refined products necessary for businesses such as asphalt and lubricants. Collectively the six large refineries received 882 thousand barrels per day (TBD) of crude oil during 2015. 478.6 TBD (54.7 percent) arrived via marine tanker from foreign sources, followed by 276.0 TBD (31.5 percent) via pipeline from San Joaquin Valley oil fields, and 120.3 TBD (13.8 percent) via marine tanker from Alaska. During 2015, these facilities produced 513 TBD of California gasoline, 110 TBD of California diesel fuel, and 179 TBD of commercial jet fuel. In addition, nearly 60 TBD of non-California gasoline and 70 TBD of non-California diesel fuel were produced for export to Southern Nevada, Arizona, and Central America (reference figure 12, page 29).

- **Chevron El Segundo Refinery -** Crude oil processing capacity of 269,000 barrels per day. Located on 1,000 acres north of the city of Manhattan Beach and adjacent to the Pacific Ocean. Chevron receives its crude oil from ships and pipelines. Company distributes refined products via ship, pipeline, and truck.
- **PBF Energy Torrance Refinery –** Crude oil processing capacity of 149,500 barrels per day. Located on 750 acres in the city of Torrance, the refinery receives crude oil via ship and pipeline and distributes refined products via pipeline, railcar, and truck.
- **Phillips 66, Wilmington Refinery –** Crude oil processing capacity of 139,000 barrels per day. The Los Angeles Refinery comprises two linked facilities, five miles apart, in Carson and Wilmington, California, about 15 miles southeast of Los Angeles International Airport (combined footprint of 660 acres). Carson equipment processes crude oil, and Wilmington upgrades the intermediate products to finished products. Phillips 66 receives crude oil via ship and pipeline and distributes products via ship, pipeline, railcar, and truck.
- **Tesoro Carson Refinery –** Crude oil processing capacity of 257,300 barrels per day. The Tesoro Carson Refinery is located on 650 acres in Los Angeles County, near the Long Beach and Los Angeles Harbors. The Carson refinery receives crude oil via ship and distributes refined products via ship, pipeline, and truck.
- **Tesoro Wilmington Refinery –** Crude oil processing capacity of 104,500 barrels per day. Located on 300 acres in Los Angeles County, east of the city of Wilmington and near the Long Beach and

Los Angeles Harbors. The Wilmington refinery receives crude oil via ship and distributes refined products via ship, pipeline, and truck.

- **Valero Wilmington Refinery –** Crude oil processing capacity of 85,000 barrels per day. Located on 120 acres in Los Angeles County, east of the city of Wilmington and near the Long Beach and Los Angeles Harbors. The Wilmington refinery receives its crude oil via ship, pipeline, and railcar and distributes its products via ship, pipeline, and truck.

- **Southern California Refineries**



Sources: Oil Change International base map, Energy Information Administration refinery data and California Energy Commission analysis.

Figure 12: Southern California Refinery Locations and Capacity

Refinery Storage Tanks

Storage tanks are an essential element in the petroleum infrastructure distribution system. Tanks are located alongside marine terminals, at refineries, along pipelines, and at large holding areas referred to as *tank farms*. Storage tanks in California are used to store crude oil and to store refined petroleum products.

- *Operations tanks* are those that normally serve a critical function for the day-to-day operations of a refinery, pipeline pump station, or marine terminal.

- *Strategic storage tanks* are used normally to temporarily hold inventory that can be used later when a refinery experiences an unplanned outage.

- *Distribution storage tanks* are used to hold refined product before it is dispensed into tanker trucks. These types of storage tanks are usually located at refineries and at pipeline distribution terminals.

Pipelines and distribution terminals

Petroleum pipelines move crude oil and refined products to and from refineries and other delivery points. The petroleum product pipelines in Southern California connect the Los Angeles Basin refineries to terminals located in Los Angeles, Orange, Colton, Imperial, Barstow, San Diego and several area airports. These networks of pipelines are normally used to transport different types of transportation fuel through the same pipe, pumping one type of fuel for a couple of days before shifting to pumping another type. There is no petroleum product pipeline that connects Northern California with Southern California.

The petroleum product pipeline system operated by KinderMorgan is also used to supply gasoline, diesel, and jet fuel to Southern Nevada which is depicted in figure 13 (Las Vegas and the surrounding area) and Phoenix, Arizona. During 2015, approximately 93 thousand barrels per day (TBD) of refined petroleum products were shipped to Las Vegas via this pipeline system and 79 thousand barrels per day (TBD) to Phoenix. These exports represented approximately 85 percent of the total volume supplied to Southern Las Vegas and nearly 35 percent of the total pipeline deliveries to Arizona.

The S2 San Andreas Fault Rupture - ShakeOut Scenario indicates the loss of Kinder Morgan's CALNEV pipeline would cause gasoline outages in Las Vegas for several weeks. The CALNEV pipeline system transports gasoline, diesel and jet fuel from Los Angeles, CA refineries and terminals through parallel 14-inch and 8-inch pipelines that originate in Colton, CA, and extend to terminals in Barstow, CA, and Las Vegas, NV. The pipeline system also serves the Nellis Air Force Base in Las Vegas, NV, McCarran International Airport in Las Vegas, NV. The San Andreas scenario indicates the pipeline will be nonfunctional for 42 days. A Sandia Labs report echoes that same information. The two figures below outlines a regional view of liquid fuel infrastructure which supports southern California.

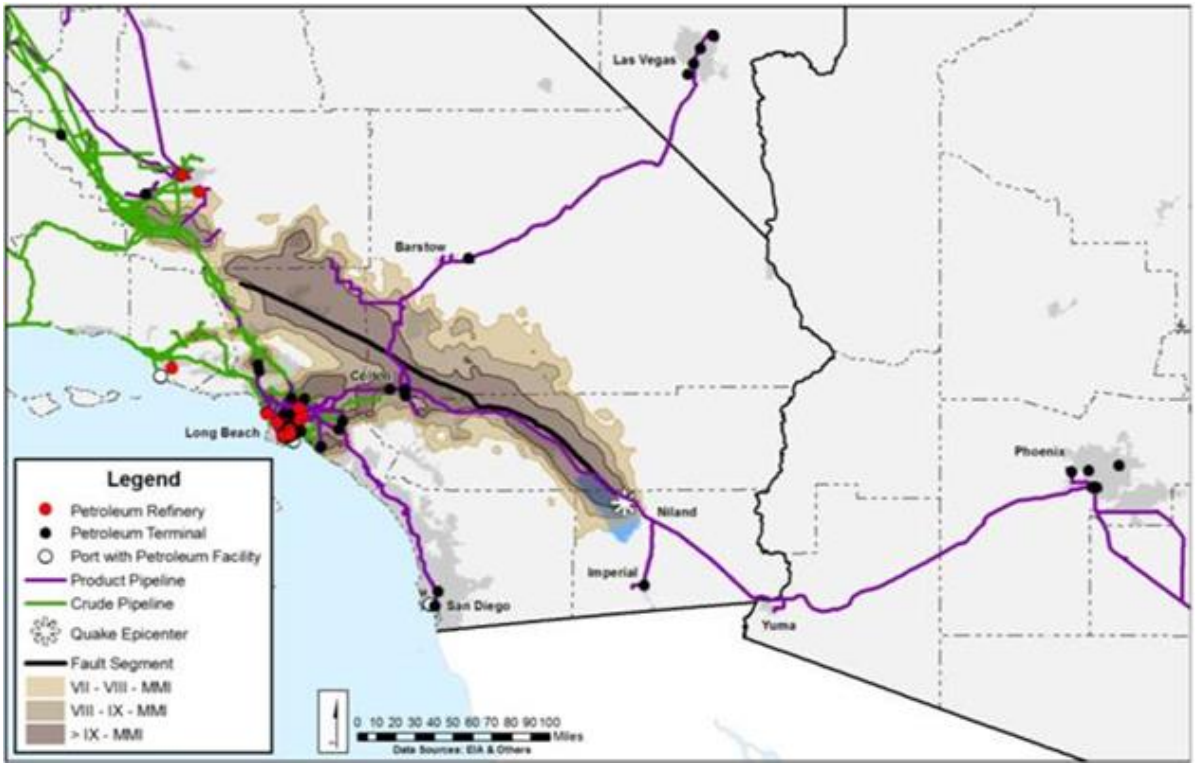


Figure 13: Kinder Morgan's CALNEV Pipeline Fuel Flow Locations and Routes

Figure 14: Kinder Morgan's CALNEV/AR/NM Pipeline Location and Pump Stations

Distribution Terminals

Gasoline and diesel fuel dispensed at retail outlets are delivered to these locations in tanker trucks that have picked up their cargo at a facility known as a distribution terminal. These types of petroleum infrastructure facilities are supplied either by pipeline or fed directly from storage tanks located at the refinery. Distribution terminals will have several storage tanks and associated piping that feed gasoline, diesel, and jet fuel to a set of valves and hose connections. This arrangement is referred to as a truck rack. There are approximately 35 locations in Southern California that can load tanker trucks with a combined storage tank capacity of over 25 million barrels. Distribution terminals downstream from refineries usually have storage capacity to accommodate maximum seasonal weekly shipments, plus some additional cushion. This means that the amount of inventory of transportation fuel that is on hand at any point in time represents between 1 and 8 days worth of demand. The wide variation in this value is due to the cyclic nature of pipeline deliveries and the fact that these terminals are not used for long-term storage of transportation fuels.

Retail Stations

There were approximately 10,040 retail gasoline stations in California during 2014 with about 5,300 stations (about 53 percent of statewide total) supplied by refineries located in Southern California. An average service station in California dispensed a little more than 4,000 gallons per day of gasoline during 2014 while hypermart stations like Costco dispensed at least 10 times that volume on a daily basis. Service stations on average receive a fuel delivery every 1.5 to 2 days. Locations that have higher throughput could receive 5 or 6 deliveries per day.

Refinery Interdependencies

Continuous refinery operations also depend on services and inputs outside the refiners' direct control. Primary examples include: Purchased electricity, natural gas and processed water used to generate steam and create hydrogen; purchased hydrogen from local third-party providers, and sulphuric acid for

gasoline processing units. Damage to any of these systems can result in curtailment or cessation of refinery operations for those facilities that did not experience significant damage to process units.

Operational Impacts on Fuel Infrastructure following Earthquakes

Refineries in California have spent billions of dollars to avoid failure during an earthquake. They have strengthened key refinery components such as building structures, shutoff valves, and internal monitoring of refinery processes. Storage tanks are shake resilient, and containment around storage tanks is intended to prevent discharges. Oil and natural gas pipelines are also conservatively engineered to prevent failure. Pipeline supervisory control and data acquisition (SCADA) systems support the isolation of breaks and control of fires. The natural gas system has redundant features underground storage fields can be drawn from and pumped into existing gas lines for emergency delivery.

In the aftermath of a catastrophic event (such as a large earthquake similar to the 1906 event in San Francisco) it is anticipated that there will not be sufficient fuel supplies available and the state will experience a temporary shortage of gasoline, diesel, and jet fuel. This will be a level of disruption not previously experienced by stakeholders that will require additional actions by government entities that are designed to simultaneously decrease local demand and increase resupply from outside the state. Further, the interconnected nature of the Southwest region's transportation fuel market will negatively impact Nevada and Arizona as the anticipated widening of the fuel supply shortfall propagates outside the immediate impact zone. Inventory levels at distribution terminals outside the impacted area being supplied by refineries located within the shake zone are typically sufficient to cover one to eight days' worth of demand depending on the status of the pipeline cycle. Therefore, areas of the state outside the impact zone that have not experienced any damage and still have electricity and natural gas service are expected to begin experiencing fuel supply shortfalls within a matter of several hours or a couple of days. The severity of these shortfalls will be exacerbated by the level of panic-buying that could ensue.

Generally, impacts may include:

- **Refineries -** In a catastrophic earthquake, the oil refining infrastructure in the Los Angeles Basin may not be fully operational. Not all systems are expected to shut down. Refineries likely will undergo emergency shutdown procedures to idle all of their processing units. Damage assessments can begin after all personnel are safely accounted for and all fires and releases are safely addressed. Initial reports on operability of the refineries could take several hours or a couple of days to obtain, while damage assessments and return-to-service estimates could take longer. One or more refineries may be partially functional to process fuel and might be available as a limited fuel source depending on the damage to the local roadway infrastructure and access to electricity at the distribution terminal associated with the refinery.
- **Refinery Storage Tanks -** Full storage tanks are vulnerable to lateral movement as the product shifts inside. In areas of liquefaction the effect is greater. Partial or complete tank failure is possible in areas of PGA or liquefaction.
- **Petroleum Product Pipelines** and pump stations may be damaged and unable to distribute refined products to distribution terminals located within and outside the impacted zone. The majority of refined products produced at California refineries are distributed through this network and any extended downtime will result in curtailment and shut-down of refineries that

did not experience any significant damage. A catastrophic earthquake could also rupture the jet fuel pipelines to the airports in the Los Angeles Basin. Most of these airports have jet fuel storage capacity and generally hold a couple of weeks of inventory.

- **Oil Pipelines -** Oil pipelines might also rupture by displacement where pipelines cross faults. During 2015, refiners in the Los Angeles Basin depended on these pipelines for supplying nearly 32 percent of their crude oil. Pipelines between the marine terminals and the refineries could also experience varying degrees of damage, limiting the ability of refiners to compensate for the loss of these California oil pipeline receipts.
- **Refinery Marine Terminals –** Southern California refiners depend on marine terminals to allow them to receive the majority (68.5 percent during 2015) of crude oil needed to operate their facilities and produce transportation fuels. Refiners usually have on hand between 7 and 10 days' worth of crude oil. Any loss of marine terminal assets used to import crude oil will degrade the ability of refiners to restart. The greater the damage to these offloading facilities and the ultimate length of repair time will dictate how soon the operable refiners can continue output once their inventories of crude oil have been exhausted.
- **Retail stations** - Interruption of fuel supply service to the public from commercial gas stations is probable due to power failure, loss of telecommunication capability (for transactions), and degraded infrastructure. Retail gas stations may have fuel in their underground tanks but will be unable to pump fuel without power. Some retail gas stations may be damaged.

FEMA/Defense Logistics Agency Inter-Agency Agreement (IAA)

- Emergency response ONLY—NO STEADY STATE
- IAA between FEMA & DLA
  - First Responders only
  - Other than First Responders—President of the United States (POTUS)
    - Sandy—public & transit system in New York & New Jersey (Vital Economic stabilization/Regional Resilience)
- Contract between DLA & contracted vendor—Foster Fuels
- Ground Fuels Only
  - MOGAS & Diesel
  - No Aviation Fuel & No Propane etc.,
  - Transported via ground Fuel vehicles ONLY
  - No Air & No Sea
- Fuel requirements flow from RRCC/RSS to NRCC/RSS
  - Resource Request Form (RRF) & WEBEOC
  - Logistics Supply Chain Management System (LSCMS)
- RSS submits warning order & activation order to DLA—Emergency Response mode
- Vendor coordinates with resource providers to obtain fuel from refineries
  - Not within FEMA LMD/RSS' or State's purview or control
  - Pre-established contractual agreements
- Vendor must be in place 48 hours after receipt of order from DLA
- Once vendor delivers fuel—FEMA OWNS!

- Full ground fuel service support—24/7 ops within 300 miles of ISB
- Three types of support
  - ❖ Tank to bulk storage
  - ❖ Tank to truck
  - ❖ Retail
- Costs
  - ❖ $225 per hour (75 or < trucks)
  - ❖ $275 per hour (over 75 trucks)
- Deactivation of Fuels mission
  - ❖ RRCC/RSS submits termination request to NRCC/RSS
  - ❖ NRCC/RSS submits deactivation order to DLA
  - ❖ DLA directs Contractor to deactivate the fuel mission
    - ➢ Contractor has 48 hours to completely deactivate
    - ➢ Hourly rate continues until vendor is demobilized or 48 hours

Emergency Eligibility to Receive Fuel from FEMA, DLA and the Contractor

- **Stafford Act titles IV and V** do not provide authority to transfer Federal property directly to a **private commercial entity**; however, the State may request fuel support be provided to a commercial entity if doing so will save lives or protect property (i.e. address an immediate threat), and the State agrees to pay the applicable cost share. Under such circumstances the private commercial entities could be considered incidental beneficiaries, while the State or local government would be the primary beneficiary of the assistance.

- **Eligible Recipients** - The State may request FEMA to provide fuel to vehicles from Federal fuelling points or make bulk deliveries into tanks at state-identified facilities when the state believes fuel is necessary to address an immediate threat and where the state cannot otherwise provide the fuel on its own. Subject to FEMA approval, **eligible recipients** could include, but are not limited to, hospitals, nursing homes, police, firefighters, emergency medical crews, and other non-profits whose services address public health and safety. States could also request fuel for disaster survivors. (FEMA's draft Fuel Services Guide)

- FEMA may provide fuel for its own needs in carrying out the FEMA mission.
  - ❖ **ESF 7 (Logistics)** – coordinates with State counterpart and direct federal fuel operations to support the State. Develops federal supporting strategy to source, transport, stage, and distribute fuel. May use a task force to coordinate all fuel activities and collaboration with stakeholders.
    - ▪ **Fuels Manager** will coordinate bulk to retail delivery, validate and set delivery priorities for bulk fuel and provide oversight of the FOO.
    - ▪ **Fuels Ordering Officer (FOO)** will identify estimated fuels requirements, forecast requirements, verify the receipt of fuel, maintain and submit fuel logs, re-direct the vendor to deliver around the radius, and report status of deliveries.

- **DLA** - responsible for executing deliveries of fuel that have been prioritized by FEMA and maintain operational control of DLA Liaison Officer(s).

- **Foster Fuels (Federal Fuels Contracting Agency)** - responsible for executing the work specified by contract for fuel deliveries initiated by the Contracting Officer (CO). Also, coordinates with resource providers to obtain fuel.

Standard Ground Fuels Deployment Package **Tank to Storage** **Retail Sales**

Figure 15: Photos of Ground, Tank and Retail Sales – FEMA, DLA to Contractor

Multimodal Transportation (SoCal Earthquake Plan) supports the delivery of fuel from other sources.

Federal - Maritime Administration (MARAD)

- E+7 Days, Initial delivery of fuel by tanker trucks may be enabled by the **MARAD** roll-on/roll-off ships in figure 16 below, which is an agency of the United States Department of Transportation. Waivers may be required for certain fuels. Delivery of refined products by barge and tanker provide a large bulk delivery method for fuel from outside of the area (Bay Area and Puget Sound).

MARAD Roll-On/Roll-Off (RO/RO)

Figure 16: Photo of MARAD RO/RO

Southern California Freight Rail System

Freight Rail Inventory

California's freight railroad system consists of 28 railroads, which can be categorized into two of the three Federal classes:

- *Class I railroads* generate more than $399 million in annual operating revenues. Burlington Northern & Santa Fe (BNSF) and Union Pacific (UP) are the only Class I railroads in California.
- *Class III railroads* are referred to as "short line" railroads and generate about $31.9 million in annual operating revenues. There are 27 short line railroads operating in California.

This freight rail network supports the operations of industries throughout the State and links California with domestic and international markets.

Class I Railroads – California's Primary Fuel Rail Transpiration Network

Union Pacific (UP) has evolved as the largest railroad in the United States. UP ships a significant volume of intermodal freight and is the largest shipper of chemicals in the country. In California, UP operates an expansive network of over 3,283 miles of track and serves diverse regions including the San Joaquin Central Valley, the Port of Oakland and San Francisco Bay Area, and the Los Angeles metropolitan area.

Carload services include two system classification yards at West Colton (Southern California) and Roseville (northern California). Regional yards are located in Lathrop (San Joaquin County), Commerce (Los Angeles County) and Yermo (San Bernardino County).

Burlington Northern Santa Fe Railroad (BNSF) is North America's largest intermodal carrier and grain-hauling railroad in the country. In California, BNSF operates over 2,125 miles of track of which BNSF owns 1,155 miles. BNSF operates on the remaining 975 miles through trackage rights (rights of one railroad to operate on another's tracks).

BNSF rail yards include Bakersfield, Barstow, City of Commerce (Los Angeles), Fresno, Needles, Richmond, Riverbank, San Bernardino, San Diego, Stockton, and Wilmington. Intermodal hub centers are located at Fresno, Richmond, San Bernardino, Stockton, and Vernon (Hobart).

Key Freight Rail Routes

A key route for both Class I railroads in California is the Tehachapi Trade Corridor, which is dispatched by the UP. The Tehachapi Trade Corridor is a major trade route which connects the State with national markets.

Southern California Freight Rail System Map

Figure 17: Southern California Freight Rail System Map

Intermodal Terminals

California's multimodal supply chain, trains carrying containers and trailers represent one link in the intermodal chain that connects shippers with receivers, together with containers ships and trucks. Intermodal rail terminals are established to facilitate transfer of containers and trailers between modes (ship to rail, truck to rail, and vice versa). In California, the majority of intermodal rail traffic is associated with the Port of Oakland, Port of Los Angeles (POLA), and Port of Long Beach (POLB). A sizable but smaller volume is related to wholly North American Free Trade Agreement (NAFTA) traffic.

CALIFORNIA FORMAL FUEL SET-ASIDE PROGRAM (FSAP)

Authority and Statutes that authorize these duties:

- Public Resource Code Section 25216.5 (b)
- Public Resource Code Section 25700
- Government Code 8596
- **Governor's Executive Emergency Order #6 -** Empowers the California Energy Commission to "hold control and coordination of petroleum and petroleum products needed to ensure the health, safety and welfare of the public."

The California Energy Commission (CEC) coordinates with the California Office of Emergency Services (OES) to ensure critical fuel supplies get to where they are needed most during a declared emergency.

Non-emergency FSAP activities handled by the CEC at their Sacramento headquarters outline in Figure 18 look at liquid transportation fuels, not electricity or natural gas.

- Gasoline & diesel fuel
- Civilian and military jet fuel
- Alternative fuels – ethanol & biodiesel
- Propane

Role of the California Energy Commission: Mediate communication between entities (emergency management/responders) with *fuel needs* and entities with *fuel stock* (refineries & distributors)

FSAP has two versions – Emergency (formal) and Non-emergency (informal).
Emergency-related transportation fuel requests:

- Emergency-related transportation fuels requests CEC personnel located at SOC - reporting, posting and completing mission tasks for transportation fuels through CalEOC web based system.

Non-emergency-related transportation fuels requests:

- CEC personnel located at the Energy Commission assess all fuel requests for other reasons.
  - Economic harm
  - Community hardship
  - Requests may over-whelm the system

Note: Priority given to emergency-related requests if supplies are constrained.

FSAP Emergency Management Coordination Process

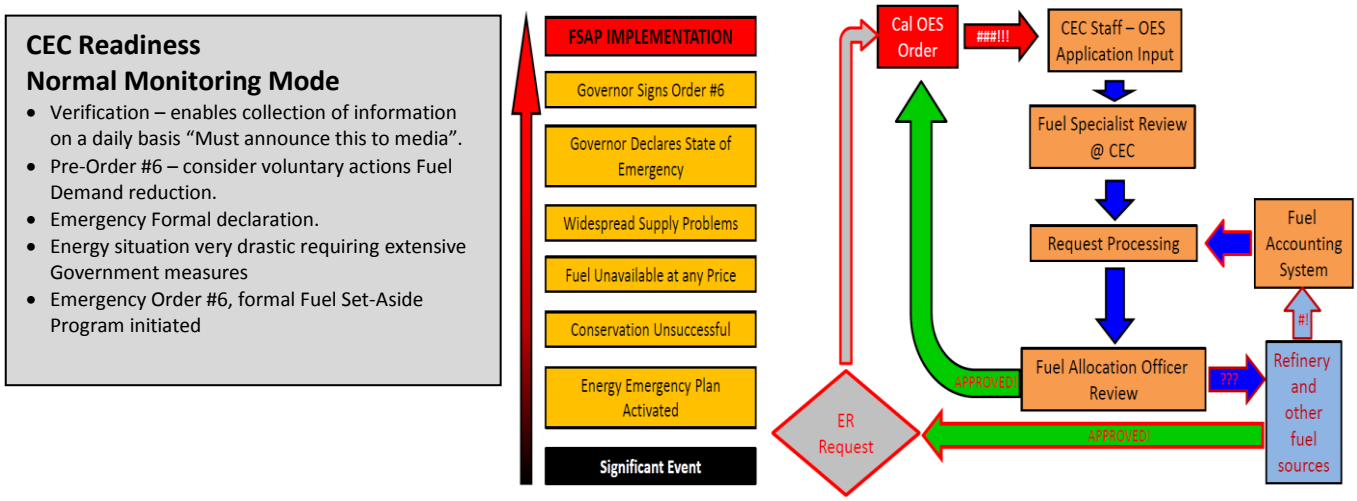


Figure 18: FSAP Emergency Management Coordination Process

FUELS – MULTI-AGENCY COORDINATION GROUP DECISION MAKING PROCESS

1. Multi-Agency Coordination System (MACS) Functions

The primary functions of the MAC System are to support resource coordination, incident-related information and to coordinate interagency and intergovernmental activities regarding incident management. The MAC Group assists in coordination of regional support operations by performing a number of core functions. In the context of this PARTICIPANT HANDBOOK, the term function is defined as "a specific process, action, or task a system is designed to perform." Figure 19 below outlines the Multi-Agency Coordination (MAC) Group functions:

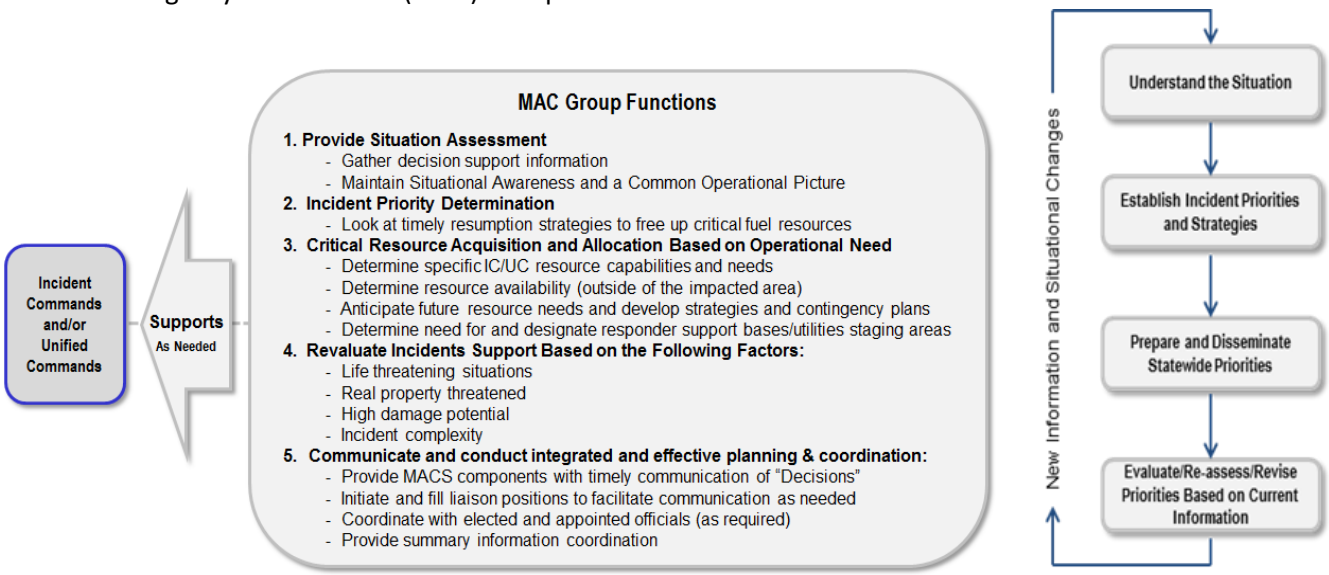


Figure 19: Multi-Agency Coordination Functions

Important Note: "Life safety" is the priority when prioritizing incidents and allocating scarce resources.

2. Specific MAC Group Planning Objectives Include:

- Establishing guidelines for the management and coordination of region/statewide scarce resources.
- Establishing the methodology for prioritizing and allocating statewide emergency fuels scarce resourcing.
- Establishing priorities and adjudicating any conflicting demands for critical resource needs.
- Establishing the framework for coordinating and maintaining liaison with appropriate federal, state, local governmental agencies and applicable segments of the private sector.
- Providing guidance for region/statewide fuels prioritization and allocation of resources.
- Providing guidance for managing the movement of region/statewide emergency transportation fuels allocated resources.
- Providing guidance for collecting, evaluating, and disseminating information & other essential data.

Note: Situational Assessment - Fuel Infrastructure Damage Page 27

3. Multi-Agency Coordination Group Prioritization Process

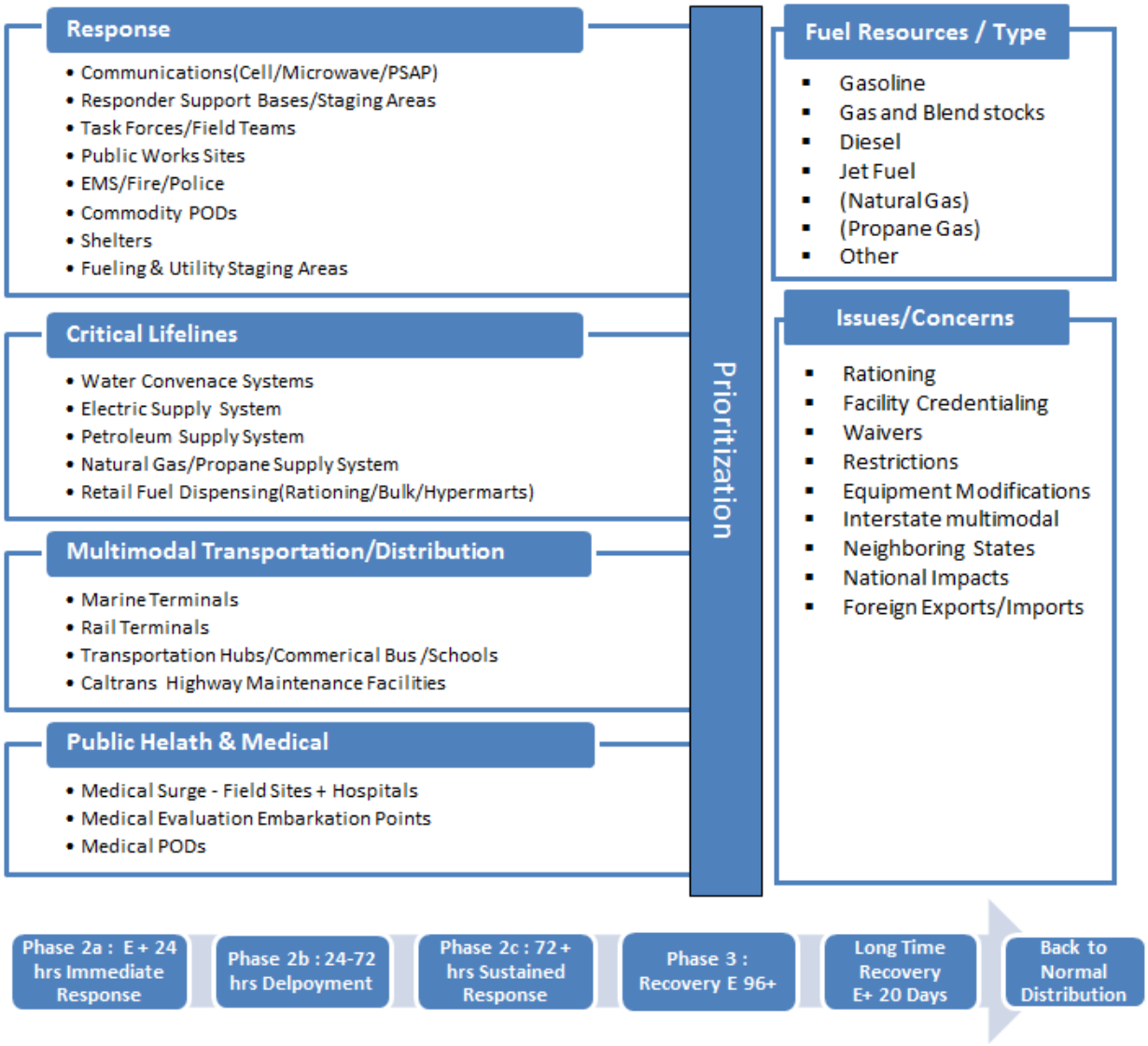


Figure 20: Multi-Agency Coordination Group Prioritization Process

Regional information: State fuel requirements with potential Federal, State, and key infrastructure fuel sites (critical facilities and priorities).

The California State Operations Center/California Energy Commission (CEC), Emergency Fuels Set-A-Side MAC Group will process fuel shortage Requests for Information (RRFs) and analyze, prioritize, allocate and coordinate initiation of support requirements. The timing of support will be in accordance with the priorities set by SOC C&GS/MAC Group/UCG. Fuel will be delivered to those impacted area(s) as directed by the California Energy Commission, Emergency Fuels Set-A-Side MAC Group.

The CEC Fuels Analyst, Reporting Specialist, to the statistician of the CEC Chair, or designee will provide necessary data points and input information in the MAC Group reporting requirements at a minimum of (4) four times daily.

LOGISTICS SUPPLY CHAIN MANAGEMENT SYSTEM (LSCMS)

This guide applies to CEC Emergency Transportation Fuel Set-A-Side MAC Group and coordinating elements supporting response activities. The below content describes a fueling concept, delivery integration, accountability, and mission assignment task orders. This document provides members of the emergency management community standardized logistics procedural guidance. These procedures are not directed to serve as the principal guiding document for external organizations to Cal OES. Figure 21 below outlines the critical information necessary for both state and federal mission tracking and incident action planning.

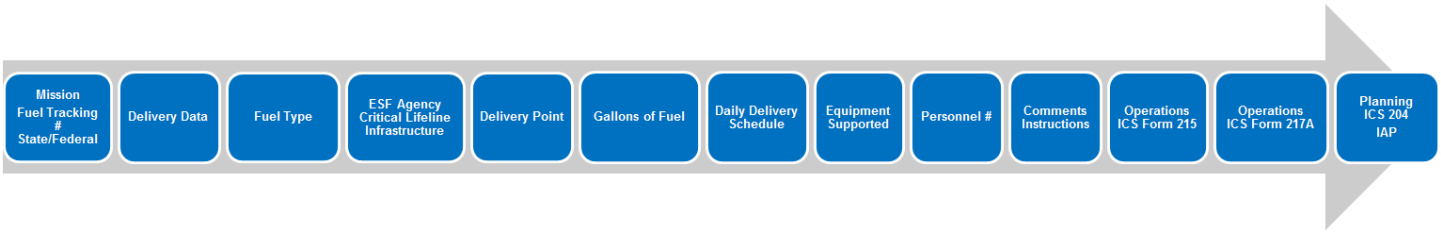


Figure 21: Multi-Agency Coordination Group Critical Information Requirements

CRITICAL INFORMATION FOR INCIDENT ACTION PLANNING/FUEL DISTRIBUTION

Mission/Fuel Tracking# State/Federal

- **Delivery Data**
- **Fuel Type**
  - Gasoline
  - Gas and Blend stocks
  - Diesel
  - Jet Fuel
  - (Natural Gas)
  - (Propane Gas)
  - Other
- **ESF Agency/Critical Lifeline/Infrastructure**
- **Delivery Point**
- **Gallons of Fuel**
- **Daily Delivery Schedule**
- **Equipment Supported**
- **Personnel #**
- **Comments/Instructions**
  - Rationing
  - Facility Credentialing
  - Waivers
  - Restrictions
  - Equipment Modifications
  - Interstate multimodal
  - Neighboring States
  - National Impacts
  - Foreign Exports/Imports
  - HazMat/Safety

Incident Action Planning Product Requirements

- ICS Form 217A – Mission Resource Coordination – (Updates every four hours)
- ICS Form 215 – Operational Planning Worksheet – (Prepared daily during the Operational Meeting)
- ICS Form 204 – Assignments List – (Prepared daily after the completion of the ICS 215s)

SOC Incident Management/Incident Action Planning Cycle Formal Fuel Set-Aside Program (FSAP) MAC Group

A series of COLLABORATIVE meetings, activities that engages leadership and all functions within the ICS structure [Field, DOCs, EOCs, MAC Groups, REOCs, SOC and with the Unified Coordination Group (UCG) at an Initial Operating Facility (IOF) or Joint Field Office (JFO) in a concerted, synchronized effort to direct action and allocate resources in the most efficient and effective way possible]. Figure 22 outlines the process depicting the primary support elements of incident planning:

- What do we need to accomplish?
  - Based on operational need and a collaborated set of objectives and priorities.
- What resources do we need?
  - Based on operational need, available resources and allocation by priority.
- Who is responsible for those resources?
- How do we collaborate, communicate and take care of each other?

ICS Incident Action Planning Process Planning "P"

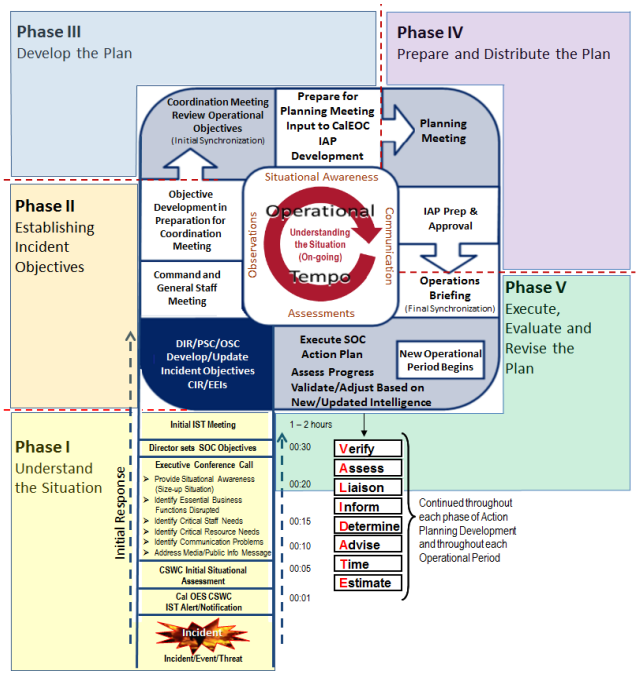


Figure 22: ICS Incident Action Planning Process Planning "P"

Incident Action Planning Process

Phase I Understand the Situation	Phase II Establishing Incident Objective/Priorities	Phase III Develop the Plan	Phase IV Prepare Distribute the Plan	Phase V Execute, Evaluate and Revise the Plan
• Incident • Initial Alert/Notification • Staffing Req'ts • Deployment • Gain Situational Awareness Gather Record Analyze Display Situation Identify Resource Req'ts Identify Risk/Hazards Identify Impacts/Concerns Identify Cascading Failures Obtain a Clear Picture • Establish Opn'l Comm.'s • Opn'l Coordination	• Formulating and prioritizing incident objectives • Identify, analyze and evaluating reasonable alternative strategies (i.e., "what" has to be done) that will accomplish overall incident objectives and conform to the legal obligations and practice of all affected agencies • Determine allocations and priorities based on operational needs. • Provide direction to guide resource allocation and distribution	• Do work assignments accurate/complete • Support incident objectives • Develop Opn'l Comm.'s Plan Radio/Telephone • Identify Organizational Structure • Develop Opn'l Tactics and Coordination • Develop and Maintain Medical Plan • Identify Risk/Hazards • Identify and Track Mission Resource Coordination • Identify Gaps/Vulnerabilities • Identify Issues and Concerns • Develop Advance Plan • Set Daily Meeting/Activity Schedule	• Review, adjust and approve Incident Action Plan (IAP) • Discuss & resolve any issues/concerns prior to publishing final IAP by going through Page by page – Step by step process • Approve by consensus and obtain commitment from C&GS/UCG to support the IAP **Note:** IAP development is for the Next Operational Period (NOP), usually starts at 0700 a.m. to 0700 a.m. the following day (24 hour period). This is based on the scope, complexity and duration of the incident.	• Compare planned progress with actual progress on a regular basis and identify deviations—changes in resource availability, mission failure or unexpected success, and new safety/cost/political/ environmental considerations • Input new information and situation changes into the first step of the planning process as necessary to modify the IAP for the current or subsequent operational period
0630 – On Going	0930 – 1000	1000 - 1700	1700 - 1900	NOP 0700 – On Going

Figure 23: Five Phases of Incident Action Planning

DISCUSSION BASED TTX - QUESTIONS

OBJECTIVE

- Examine the organization's continuous process of managing emergency transportation fuels set-a-side prioritization and allocation activities effectively.
- Trigger discussion on identifying problems and possible solutions related to southern California fuel shortage.

QUESTIONS

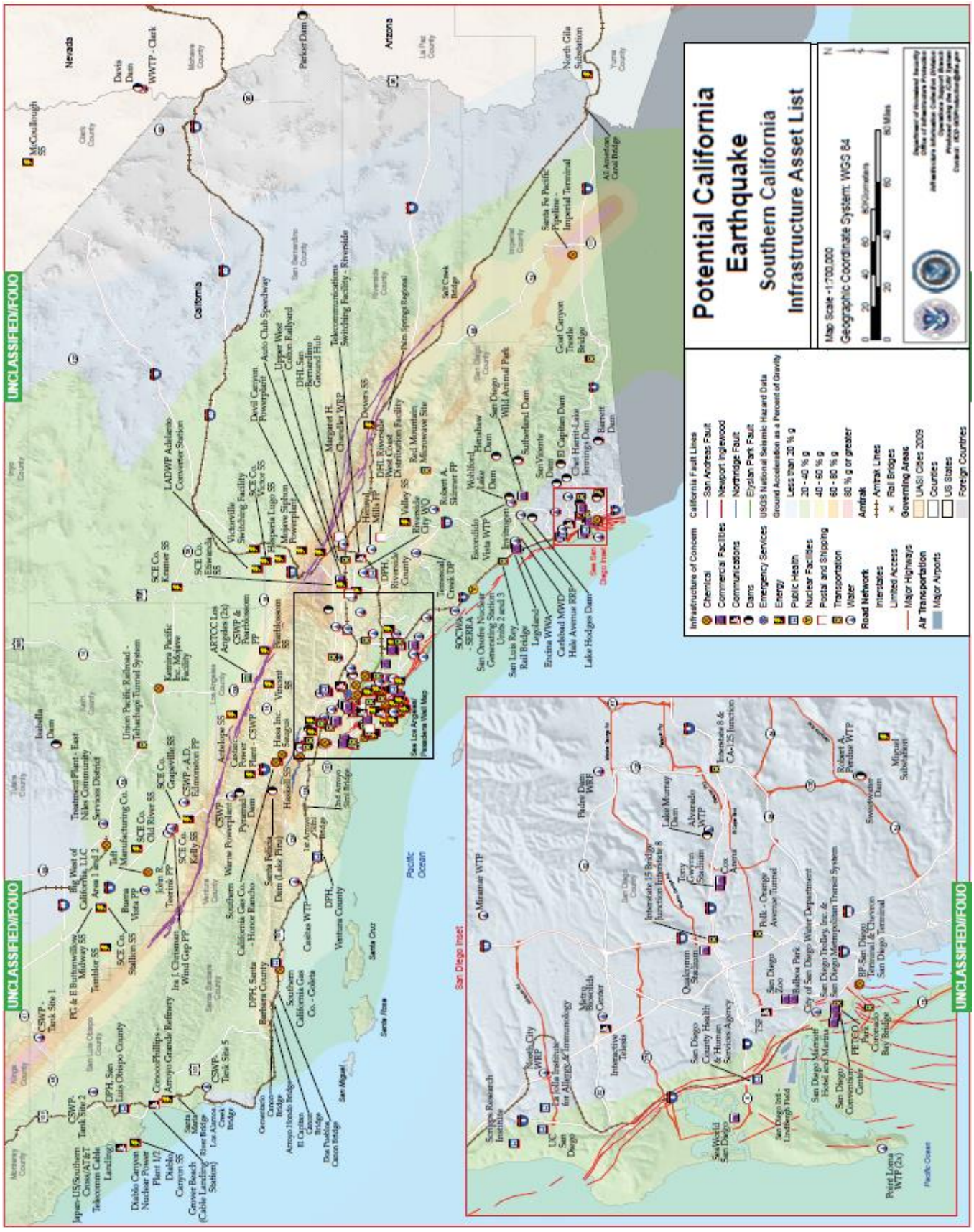
Discuss Initial Actions by CEC/Emergency Transportation Fuels MAC Group

- Identify the Day-1 Fuel situation (CEC SME provides overview of the fuel Situational Assessment) Fuel Infrastructure Damage Report
    - Chevron El Segundo Operating ALL other Refineries are DOWN.
    - Terminals are DOWN
    - Significant damage to SoCal pipeline infrastructure (leaks, fires, etc.)
    - For Southern California resource <40% of on-site inventory is available or accessible (dependent on status of the power infrastructure)
    - Utah/Nevada (UNEV) Pipeline is down that supply 60,000 barrels per day impacting Nevada, Utah, and Arizona (down time estimates 42 days).
    - Northern California resources at the time of the event are the only reliable source of inventory for 7 days.
    - Key delivery options will be impacted by road situation around the disaster area.
- Review Day-1 Fuel situation (CEC personal provide fuel impact to critical infrastructure/vital lifelines and possible escalating failures).
- Discuss prioritization requirements for the next operational period IAP.
    - Response
    - Critical Lifelines
    - Multimodal Transportation/Distribution
    - Public Health and Medical
- Discuss Pre-Scripted Mission Assignments (PSMAs) for emergency fuels allocation to impacted areas (Response, Critical Lifelines, Transportation/Distribution, Public Health and Medical) issues and concerns.
- Discuss the Public Information Office (PIO) plan for handling the media.

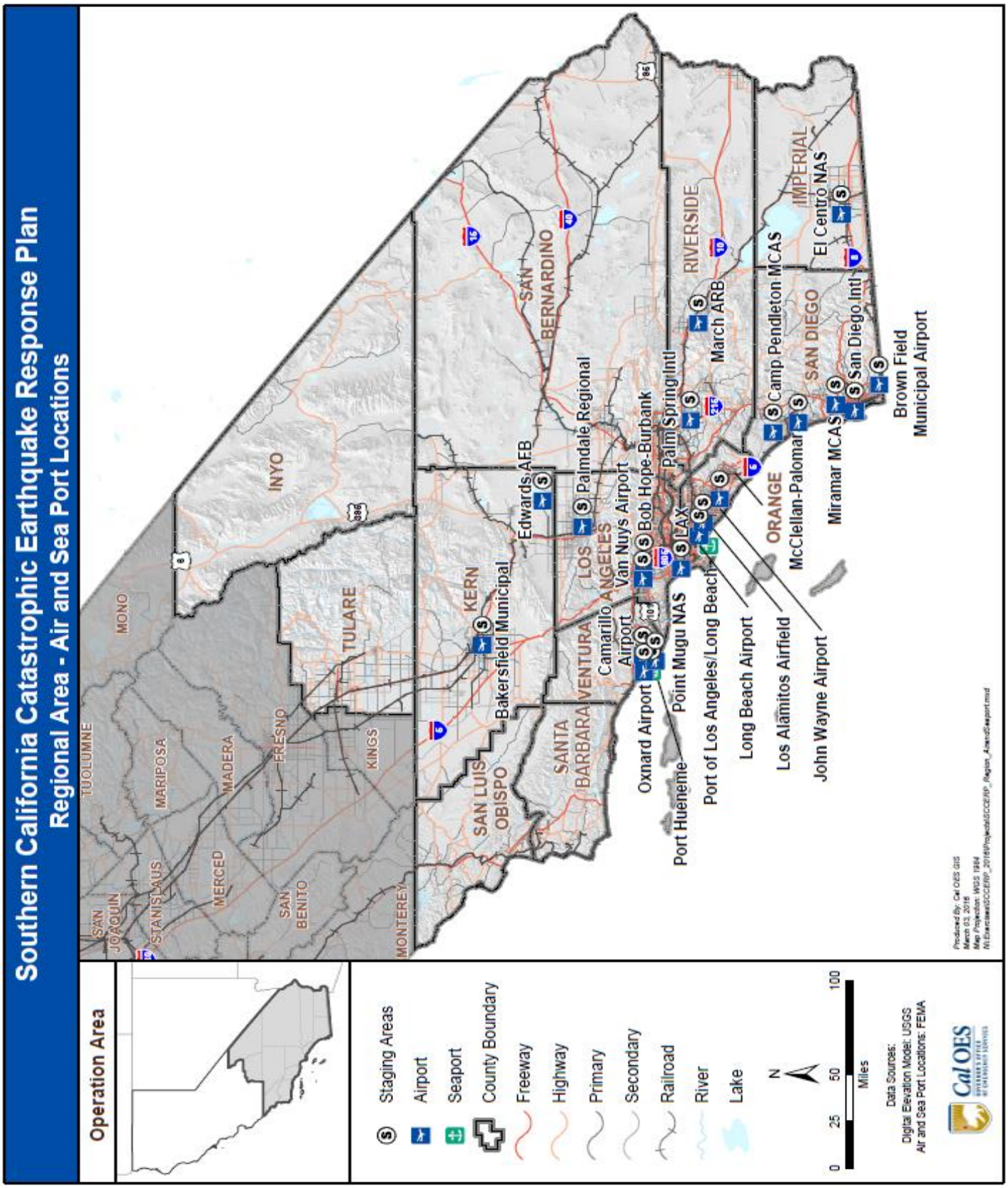
HOT WASH

- Are the current policies and procedures adequate to mitigate this type of incident?
- What are the immediate concerns/issues that need to be addressed?
- What are the key takeaways/lessons learned from this TTX?

APPENDIX B MAPS/LAYOUTS



APPENDIX B MAPS/LAYOUTS



APPENDIX B EVALUATION AND POST-EXERCISE ACTIVITIES

Exercise Documentation

The goal of this discussion based Table Top Exercise (TTX) is to develop the Multi-Agency Coordination (MAC) Group decision making framework to support emergency transportation fuel prioritization and resource allocation for the impacted region. After the exercise, data collected by evaluators, scribe and players will be used to identify strengths and areas for improvement in the context of the exercise objectives/core capabilities.

Exercise Evaluation Guides (EEGs)

Cal OES Planning and Preparedness Division will develop Exercise Evaluation Guides (EEGs) that identify expected activities for evaluation, provide consistency across exercises, and link individual tasks to disciplines and expected outcomes.

The EEGs selected by the exercise design team are contained in the Participant Handbook for evaluator materials. These EEGs have been selected because the activities they describe can be expected to be observed during the exercise. The EEGs will guide evaluation to match the emergency transportation fuels discussion based TTX objectives. Supplemental evaluation materials designed for ESF7/ESF12 may also be used.

Hot Wash

Immediately after completion of the discussion based exercise, facilitator, players, and evaluators will participate in a Hot Wash. The Hot Wash is an opportunity for players to express their opinions about the exercise and their own performance. At this time, evaluators can seek clarification regarding certain actions or questions that players asked during the exercise. The Hot Wash should not last more than 30 minutes. Evaluators should take notes during the Hot Wash and include these observations in their analysis.

Facilitator and Evaluator Debriefing

Facilitators, evaluators, and selected exercise participants will attend a facilitated exercise debriefing directly after Hot Wash at California Energy Commission, 1516 Ninth Street, Sacramento, CA 95814. During this debriefing, these individuals will discuss their observations of the exercise in an open environment to clarify actions taken during the exercise. Evaluators should take this opportunity to complete their EEGs for submission to the Lead Evaluator and begin the analysis process outlining issues to be included in the AAR.

After Action Report (AAR)

The AAR is the culmination of Cal OES discussion based exercise. It is a written report that outlines strengths and areas for improvement identified during the exercise. The AAR will include the timeline, executive summary, scenario description, mission outcomes, and capability analysis. The AAR will be drafted by the Lead Planner in direct coordination with evaluation team members.

Improvement Plan (IP)

The improvement process represents the comprehensive, continuing preparedness effort of which the Lead Planner is a part. Lessons learned and recommendations from the AAR will be incorporated into an Improvement Plan (IP).

The IP identifies how recommendations will be addressed, including what actions will be taken, who is responsible, and the timeline for completion. It is created by the Lead Planner and evaluators after the initial AAR Draft is completed.

Lessons Learned / Best Practices Overview

The lessons learned and best practices are reviewed by both the Exercise Evaluation Team, Emergency Transportation Fuels Set-A-Side Working Group, and selected NASEO members. This forum allows participants to hear the results of the evaluation analysis, validate findings and recommendations in the draft AAR, and begin development of the IP.

Exercise Evaluation Team

Position	Name	Phone	E-mail
Lead Exercise Planner/Controller	Patrick T. Hammond	845-8777	Patrick.Hammond@caloes.ca.gov
Lead Evaluator - Planning	Jeff Newman	845-8829	Jeff.Newman@caloes.ca.gov
Evaluator - Situational Awareness	Megan Pappas	845-8783	Megan.Pappas@caloes.ca.gov
Evaluator - Operational Comm.'s	Lee Dorey	845-8480	Lee.Dorey@caloes.ca.gov
Evaluator - Operational Coordination	Amy Stewart	845-8177	Amy.Stewart@caloes.ca.gov
Scribe	Karen Valencia	845-8785	Karen.Valencia@caloes.ca.gov

Number of Participants (Estimated)

Due to the nature of this exercise, participates/players in this exercise will vary due to real world requirements (travel, other scheduled appointments, and other business.)

- 35 Players
- 1 Controller
- 4 Evaluators
- 2 Facilitators
- 1 Scribe / 5 Observers

Evaluation Process:

The goal of the emergency transportation fuel exercise evaluation process is to successfully manage the conduct of the exercise and to validate strengths and identify improvement opportunities. This is accomplished by:

1) Communicating key events that occur during exercise play.
2) Facilitating and controlling the exercise according to the plan.
3) Observing the event and collecting supporting data, analyzing the data to compare performance against expected outcomes, and determining what changes need to be made to ensure future expected outcomes.

Facilitators/Evaluation Team Members/Scribes' (FAC/ETM/S) Key Responsibilities:

- ❒ Protect the safety of all participants. (FAC/ETM/S)
- ❒ Ensure participants follow the Participant Handbook time tables. (FAC/ETM/S)
- ❒ Ensure proper exercise flow and participation. (FAC/ETM)
- ❒ Ensure objectives are met; stay on script. (FAC/ETM)
- ❒ Observe and record activity and conduct. (ETM/S)
- ❒ Compare activities against evaluation objectives. (FAC/ETM/S)
- ❒ Complete Exercise Evaluation Guides. (ETM)
- ❒ Note strengths and areas for improvement. (FAC/ETM/S)

Before the Exercise:

- ❒ Familiarize yourself with plans, procedures and protocols.
- ❒ Attend required briefings and trainings.
- ❒ ***Review PARTICIPANT HANDBOOK.*** Be familiar with the exercise package materials, including objectives, scenario, injects, safety and security plans, and instructions.
- ❒ Understand exercise organization, control, communications systems and procedures.
- ❒ Review the evaluation objectives and evaluator materials for *your* area of responsibility. Evaluators meet on September 29th, 13:00 in B 242 conference room to meet. Lead Planner and discuss evaluation procedures.

During the Emergency Transportation Fuels TTX:

Pre-coordination, set-up will begin on September 30th, 2016 at 08:30 a.m. All support staff will be present NLT 09:00 a.m. at California Energy Commission, 1516 Ninth Street, Sacramento, CA 95814. TTX will begin at 09:00 a.m. and complete at 11:30 a.m., followed by a half-hour participant Hot Wash for all that participated before adjourning.

- ❒ Be at your location at least 30 minutes before start (**08:30**). Call the Lead Planner/Controller (916-508-6089) to check in.
- ❒ Have proper identification and tools to perform your mission/tasking.
- ❒ Be familiar with the PARTICIPANT HANDBOOK and evaluation process.
- ❒ Enforce time tables (stay on track) and encourage participants for honest and to play realistically.
- ❒ Maintain observation logs and ensure significant activities, key issues and decisions are documented.

Important Note: Follow proper procedures in the event of a real emergency. Real Events take precedence over exercise events.

Player Interface:

- FAC/ETM provides direct input to players as required.
- Evaluators only when required or asked specifics on the Participant Handbook.
- Scribes may answer questions/provide basic information from data recorded.
- Do not prompt or coach player responses.

Following the Exercise:

- ❒ Lead Planner/Facilitator will conduct the Participant Hot Wash immediately following the end of the exercise. (Location: CEC, 1516 Ninth Street, Sacramento, CA 95814, 11:00 to 11:30)
  - Hot Wash Ground Rules
    - Lead Facilitator conducts
    - Short time duration (~30 minutes or less)
    - Facilitated discussion
    - Constructive comments only
    - Follow debrief/question format focused on organizational improvement
  - Hot Wash Agenda
    - Distribute *Participant Feedback Forms*
    - Facilitator/player discussion
      1) Review of exercise objectives, did we accomplish what we set out to do?
      2) What are the key take a ways from the discussion based workshop?
      3) What are the immediate concerns/issues that need to be addressed?
      4) What where the workshop positives and strengths to sustain?
    - Collect completed *Participant Feedback Forms*

Immediately following the Hot Wash

- ❑ Lead Planner conducts facilitators/evaluator/scribe hot wash
- ❑ Discussion/Input from facilitators, evaluators, scribes and others supporting the exercise.

Near Term Product Requirement

- ❒ Complete all EEG forms and documentation (Logs, EEGs, Feedback Notes).
  - Turn in to Lead Planner – no later than (NLT) one week after exercise completion (October 7th, 2016).
- ❒ Draft AAR/IP for review/approval (30 days after receipt of Logs, EEGs, Feedback Notes, Scribe Notes).
- ❒ Provide key leadership and exercise staff with electronic versions of completed AAR/IP NLT (Nov 9, 2016).

EXERCISE EVALUATION GUIDES (EEGS) ANALYSIS FORM

Customized Template - Based on Emergency Transportation Fuels Discussion Based TTX objectives and expectations.

Evaluator Name/Location:_____

Phone #: _____

PREVENT MISSION: PLANNING (JEFF NEWMAN)

Core Capability: Planning - Examine, validate, and maintain catastrophic plans, policies, and procedures, and how Multi-Agency Coordination System (MACS) agencies prioritize, coordinate, and manage information, equipment, and resources during phase two of the initial response. Reference: (Gov.'s Emergency EO #6, SEMS, NIMS, FIRESCOPE MACS 410-2, California Statewide Multi-Agency Coordination System Guide, ICS IAP Planning Process).
#1 - Relevant Support Objectives
Develop, validate, and maintain Multi-Agency Coordination (MAC) Group procedures and how the group prioritizes, coordinates, and manages critical information as part of the overall information collection plan. Look at the emergency transportation fuels set-a-side program to adequately allocate and provide scarce fuel reserves to impacted region during: ☐ Examine Phase 2A: 0-24 Hours – Activation (Immediate Response) ☐ Examine Phase 2B: 12-72 Hours – Deployment and Employment ☐ Provide exercise analysis back to California Energy Commission to improve policies, procedures that assist in a better understanding of California's Multi-Agency Coordination System (MACS). ☐ Look at proof of concept (Fuels MAC Group) SOC integration and functionality.

The exercise evaluation guide analysis sheet identifies those recommendations to enhance performance, and address changes in policy and procedures relevant to your observations.

Activity Analysis
Observations ***(Each bullet will need a completed After Action Report [AAR] input form.)***
Strengths:
Areas for Improvement – Root Cause/Reference:
Issues / Concerns Observed specifically focused on: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment
Recommendations: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment

EXERCISE EVALUATION GUIDES (EEGS) ANALYSIS FORM

Customized Template - Based on Emergency Transportation Fuels Discussion Based TTX objectives and expectations.

Evaluator Name/Location:_____

Phone #: _____

RESPONSE MISSION: SITUATIONAL ASSESSMENT (MEGAN PAPPAS)

Core Capability: Situational Assessment - Provide decision makers with relevant timely information regarding the nature and extent of the current situation caused by a southern California catastrophic earthquake.

- Deliver information sufficient to prioritize and allocate scarce fuels resources and provide accurate and time information to assist in the incident action planning process.

Reference: (Gov.'s Emergency EO #6, SEMS, NIMS, FIRESCOPE MACS 410-2, California Statewide Multi-Agency Coordination System Guide, ICS IAP Planning Process).

#2 - Relevant Support Objectives

- ☐ Analyze emergency transportation fuels critical needs to adequately allocate and provide scarce fuel reserves to impacted region. Examine communications between Fuels MAC Group/CEC/SOC.
- ☐ Examine the continuous process of managing all-hazard activities effectively.
- ☐ Assess overall integration and coordination needed to be successful when conducting initial response operations, training and exercises.

The exercise evaluation guide analysis sheet identifies those recommendations to enhance performance, and address changes in policy and procedures relevant to your observations.

Activity Analysis
Observations ***(Each bullet will need a completed After Action Report [AAR] input form.)***
Strengths:
Areas for Improvement – Root Cause/Reference:
Issues / Concerns Observed specifically focused on: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment
Recommendations: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment

EXERCISE EVALUATION GUIDES (EEGS) ANALYSIS FORM

Customized Template - Based on Emergency Transportation Fuels Discussion Based TTX objectives and expectations.

Evaluator Name/Location:_____

Phone #: _____

RESPONSE MISSION: OPERATIONAL COMMUNICATIONS (LEE DOREY)

Core Capability: Operational Communications - Ensure the capability for timely communications in support of situational awareness and operations to mitigate and recover from the event. Fuels Multi-Agency Coordination (MAC) Group provides prompt and actionable information to prioritize, allocate scarce fuels resources.

Reference: (Gov.'s Emergency EO #6, SEMS, NIMS, FIRESCOPE MACS 410-2, California Statewide Multi-Agency Coordination System Guide, ICS IAP Planning Process).

#3 - Relevant Support Objectives

- ❑ Assess the capability for timely communications in support of situational awareness and operations to mitigate and recover from the event.
- ❑ Examine the Fuels MAC Group prompt and actionable information for effective incident action planning.
- ❑ Discuss communication infrastructure within the affected areas to support effective emergency fuels allocation.

The exercise evaluation guide analysis sheet identifies those recommendations to enhance performance, and address changes in policy and procedures relevant to your observations.

Activity Analysis
Observations ***(Each bullet will need a completed After Action Report [AAR] input form.)***
Strengths:
Areas for Improvement – Root Cause/Reference:
Issues / Concerns Observed specifically focused on: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment
Recommendations: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment

EXERCISE EVALUATION GUIDES (EEGS) ANALYSIS FORM

Customized Template - Based on Emergency Transportation Fuels Discussion Based TTX objectives and expectations.

Evaluator Name/Location:_____

Phone #: _____

RESPONSE MISSION: OPERATIONAL COORDINATION (AMY STEWART)

Core Capability: Operational Coordination - Establish and maintain a Fuels MAC Group/coordinated operational structure to assist in the execution of the incident action planning process/(IAP) development. The Fuels Multi-Agency Coordination (MAC) Group provides prompt and actionable information to prioritize, allocate scarce fuels resources.

Reference: (Gov.'s Emergency EO #6, SEMS, NIMS, FIRESCOPE MACS 410-2, California Statewide Multi-Agency Coordination System Guide, ICS IAP Planning Process).

#3 - Relevant Support Objectives

- ❑ Examine the Fuels MAC Group operational structure to effectively support all operational phases; response, mitigation and recovery.
- ❑ Assess Fuels MAG Group to effectively prioritize and allocate scarce fuels resources.
- ❑ Execute operations with functional and integrated communications.
- ❑ Establish and maintain partnerships to support networking, planning, and coordination.
- ❑ Enhance resiliency and maintain SEMS/NIMS compliancy.
- ❑ Look at proof of concept (Fuels MAC Group) SOC integration and functionality.

The exercise evaluation guide analysis sheet identifies those recommendations to enhance performance, and address changes in policy and procedures relevant to your observations.

Activity Analysis
Observations ***(Each bullet will need a completed After Action Report [AAR] input form.)***
Strengths:
Areas for Improvement – Root Cause/Reference:
Issues / Concerns Observed specifically focused on: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment
Recommendations: • Planning (Policy and Procedures) • Leadership/Management (Knowledge and Decision Making) • Workshop/Exercise (Performance Improvements) • Training (Individual/Team/Collective) • Systems and Equipment

EMERGENCY TRANSPORTATION FUELS DISCUSSION BASED TTX ACTIVITY LOG

Activity Log	
Name:	**Evaluator Functional Area:**
Tasks Observed – place time, given task number observed and provide a quick narrative/observation notes to specific performance measures and/or core competencies. An effective evaluation ensures: – Accurate data collection – Effective data analysis – Identification of best practices, lessons learned, and improvement steps	**Observation / Notes**: Write a general chronological narrative of actions based on your observations during the exercise to include contributing factors and what led to that action (strength, gap or weakness, positive or negative consequences). Please identify any recommendations you may have for enhance performance, address changes in policy, procedures relevant to your observations.

Emergency Transportation Fuels TTX Activity Log		
Time	**Observation / Notes:**	**Plan/Ref: Page**

Activity Log	
Name:	**Evaluator Functional Area:**
Tasks Observed – place time, given task number observed and provide a quick narrative/observation notes to specific performance measures and/or core competencies. An effective evaluation ensures: – Accurate data collection – Effective data analysis – Identification of best practices, lessons learned, and improvement steps	**Observation / Notes**: Write a general chronological narrative of actions based on your observations during the exercise to include contributing factors and what led to that action (strength, gap or weakness, positive or negative consequences). Please identify any recommendations you may have for enhance performance, address changes in policy, procedures relevant to your observations.

Emergency Transportation Fuels TTX Activity Log		
Time	**Observation / Notes:**	**Plan/Ref: Page**

Participant Feedback Form

Exercise Design and Conduct

1. What is your assessment of the exercise design and conduct?

Please rate, on a scale of 1 to 5, your overall assessment of the conference relative to the statements provided below, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement.

	Rating of Satisfaction with Exercise				
	Strongly Disagree				***Strongly Agree***
Assessment Factor					
a. The exercise was well structured and organized.	1	2	3	4	5
b. The exercise scenario was plausible and realistic.	1	2	3	4	5
c. Was the exercise beneficial and format useful for future exercises.	1	2	3	4	5
d. The facilitator(s) was knowledgeable about the material, kept the exercise on target, and was sensitive to group dynamics.	1	2	3	4	5
e. The documentation used during the breakout was a valuable tool.	1	2	3	4	5
f. The participants included the right people in terms of decision making and planning.	1	2	3	4	5

2. What changes would you make to improve this exercise?
Please provide any recommendations on how this exercise could be improved or enhanced.

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APPENDIX C GLOSSARY – (Key Terms, Definitions and Acronyms)

ACTIVATION: The implementation of business continuity capabilities, procedures, activities, and plans in response to an emergency or disaster declaration; the execution of the recovery plan.

ALERT: Notification that a potential disaster situation exists or has occurred; direction for recipient to stand by for possible activation of disaster recovery plan.

ALTERNATE SITE: An alternate operating location to be used by business functions when the primary facilities are inaccessible. 1) Another location, computer center or work area designated for recovery. 2) Location, other than the main facility, that can be used to conduct business functions. 3) A location, other than the normal facility, used to process data and/or conduct critical business functions in the event of a disaster. SIMILAR TERMS: Alternate Processing Facility, Alternate Office Facility, Alternate Communication Facility, Backup Location, and Recovery Site.

ALTERNATE WORK AREA: Office recovery environment complete with necessary office infrastructure (desk, telephone, workstation, and associated hardware, communications, etc.); also referred to as Work Space or Alternative work site.

APPLICATION RECOVERY: The component of Disaster Recovery that deals specifically with the restoration of business system software and data, after the processing platform has been restored or replaced. SIMILAR TERMS: Business System Recovery.

BACKUP GENERATOR: An independent source of power, usually fueled by diesel or natural gas.

BUSINESS INTERRUPTION: Any event, whether anticipated (i.e., public service strike) or unanticipated (i.e., blackout) which disrupts the normal course of business operations at an organization location.

CALL TREE: A document that graphically depicts the calling responsibilities and the calling order used to contact management, employees, customers, vendors, and other key contacts in the event of an emergency, disaster, or severe outage situation. SIMILAR TERMS: Alert Roster; Emergency Contact List; Phone Tree

COMMUNICATIONS RECOVERY: The component of disaster recovery which deals with the restoration or rerouting of an organization's telecommunication network, or its components, in the event of loss. SIMILAR TERMS: Telecommunications Recovery, Data Communications Recovery

COMMAND CENTER: Facility separate from the main facility and equipped with adequate communications equipment from which initial recovery efforts are manned and media-business communications are maintained. The management team uses this facility temporarily to begin coordinating the recovery process and its use continues until the alternate sites are functional.

CONTACT LIST: A list of team members and/or key players to be contacted including their backups. The list will include the necessary contact information (i.e. home phone, pager, cell, etc.) and in most cases be considered confidential.

CONTINGENCY PLAN: A plan used by an organization or business unit to respond to a specific systems failure or disruption of operations. A contingency plan may use any number of resources including workaround procedures, an alternate work area, a reciprocal agreement, or replacement resources.

CONTINUITY PLANNING: Process of developing advance arrangements and procedures that enable an organization to respond to an event in such a manner that critical business functions continue with planned levels of interruption or essential change. SIMILAR TERMS: Contingency Planning, Disaster Recovery Planning. (That can occur by chance or unforeseen circumstances.)

CONTINUITY OF OPERATIONS PLAN (COOP): A COOP provides guidance on the system restoration for emergencies, disasters, mobilization, and for maintaining a state of readiness to provide the necessary level of information processing support commensurate with the mission requirements/priorities identified by the respective functional proponent. This term traditionally is used by the Federal Government and its supporting agencies to describe activities otherwise known as Disaster Recovery, Business Continuity, Business Resumption, or Contingency Planning.

CRATE & SHIP: A strategy for providing alternate processing capability in a disaster, via contractual arrangements with an equipment supplier, to ship replacement hardware within a specified time period. SIMILAR TERMS: Guaranteed Replacement, Drop Ship, Quick Ship.

CRISIS: A critical event, which, if not handled in an appropriate manner, may dramatically impact an organization's profitability, reputation, or ability to operate.

CRISIS MANAGEMENT: The overall coordination of an organization's response to a crisis, in an effective, timely manner, with the goal of avoiding or minimizing damage to the organization's profitability, reputation, or ability to operate.

CRISIS MANAGEMENT TEAM: A crisis management team will consist of key executives as well as key role players (i.e. media representative, legal counsel, facilities manager, disaster recovery coordinator, etc.) and the appropriate business owners of critical organization functions.

CRITICAL FUNCTIONS: Business activities or information that could not be interrupted or unavailable for several business days without significantly jeopardizing operation of the organization.

CRITICAL INFRASTRUCTURE: Systems whose incapacity or destruction would have a debilitating impact on the economic security of an organization, community, nation, etc.

DAMAGE ASSESSMENT: The process of assessing damage following a disaster. This process helps determine the extent on damage and cost estimation (what can be salvaged, restored and what must be replaced).

DECLARATION: A formal announcement by pre-authorized personnel that a disaster or severe outage is predicted or has occurred and that triggers pre-arranged mitigating actions (e.g. a move to an alternate site.)

DECLARATION FEE: A one-time fee, charged by an Alternate Facility provider, to a customer who declares a disaster. NOTE: Some recovery vendors apply the declaration fee against the first few days of recovery. 1) An initial fee or charge for implementing the terms of a recovery agreement or contract. SIMILAR TERMS: Notification Fee.

DESK CHECK: One method of testing a specific component of a plan. Typically, the department heads or signatories review components for accuracy and completeness and signs off.

DISASTER: A sudden, unplanned calamitous event causing great damage or loss. 1) Any event that creates an inability on an organizations part to provide critical business functions for some predetermined period of time. 2) In the business environment, any event that creates an inability on an organization's part to provide the critical business functions for some predetermined period of time. 3) The period when company management decides to divert from normal production responses and exercises its disaster recovery plan. Typically signifies the beginning of a move from a primary to an alternate location. SIMILAR TERMS: Business Interruption; Outage; Catastrophe.

EMERGENCY: A sudden, unexpected event requiring immediate action due to potential threat to health and safety, the environment, or property.

EMERGENCY PREPAREDNESS: The discipline that ensures an organization, or community's readiness to respond to an emergency in a coordinated, timely, and effective manner.

EMERGENCY PROCEDURES: A plan of action to commence immediately to prevent the loss of life and minimize injury and property damage.

EMERGENCY OPERATIONS CENTER (EOC): A site from which response teams/officials (municipal, county, state and federal) exercise direction and control in an emergency or disaster.

ENVIRONMENT RESTORATION: Recreation of the critical business operations in an alternate location, including people, equipment and communications capability.

EXECUTIVE / MANAGEMENT SUCCESSION: A predetermined plan for ensuring the continuity of authority, decision-making, and communication in the event that key members of senior management suddenly become incapacitated, or in the event that a crisis occurs while key members of senior management are unavailable.

EXERCISE: An activity that is performed for the purpose of training and conditioning team members, and improving their performance. Types of exercises include: Workshops, Seminars, Discussion Based Exercise, Table Top Exercise, Simulation Exercise, Operational Exercise, and Full Scale Exercise.

FINANCIAL IMPACT: An operating expense that continues following an interruption or disaster, which as a result of the event cannot be offset by income and directly affects the financial position of the organization.

HAZARD OR THREAT IDENTIFICATION: The process of identifying situations or conditions that have the potential to cause injury to people, damage to property, or damage to the environment.

HIGH AVAILABILITY: Systems or applications requiring a very high level of reliability and availability. High availability systems typically operate 24x7 and usually require built in redundancy built-in redundancy to minimize the risk of downtime due to hardware and/or telecommunication failures.

HIGH-RISK AREAS: Heavily populated areas, particularly susceptible to high-intensity earthquakes, floods, tsunamis, or other disasters, for which emergency response may be necessary in the event of a disaster.

HUMAN THREATS: Possible disruptions in operations resulting from human actions. (i.e., disgruntled employee, terrorism, blackmail, job actions, riots, etc.)

INCIDENT ACTION PLAN: The IAP is a written plan that defines the incident objectives and reflects the tactics necessary to manage an incident during an operational period. The IAP is developed through the incident action planning process.

INCIDENT ACTION PLANNING PROCESS: There are five primary phases of the incident action planning process in developing an Incident Action Plan (IAP). During the initial stages of incident management, planners must develop a simple plan that can be communicated through concise verbal briefings. Frequently, this plan must be developed very quickly and with incomplete situation information. As the incident management effort evolves over time, additional lead time, staff, information systems, and technologies enable more detailed planning and cataloging of events and "lessons learned." The Planning involves:

- Phase I – Understand the situation
- Phase II – Establish incident objectives
- Phase III – Selecting a strategy and develop the Plan
- Phase IV – Prepare the Plan and make distribution
- Phase V – Execute, evaluate and revise the Plan

INCIDENT COMMANDER: The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

INCIDENT MANAGEMENT TEAM: The appropriate Command and General Staff personnel assigned to an incident.

INCIDENT OBJECTIVES: Statements of guidance and direction necessary for selecting appropriate strategy(s) and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow strategic and tactical alternatives.

INITIAL ACTION: The actions taken by those responders first to arrive at an incident site.

INITIAL RESPONSE: Resources initially committed to an incident.

INTERAGENCY AGREEMENTS: A written agreement entered into between agencies that require specific goods or services to be furnished or tasks to be accomplished by one agency in support of the other.

INTEROPERABILITY: "Interoperability" has two meanings: (1) The ability of systems, personnel, or agencies to provide services to and accept services from other systems, personnel, or agencies, and to use the services so exchanged so that these organizations can operate together effectively; (2) A condition that is realized among electronic-communications operating systems or grids and/or among individual electronic-communications devices, when those systems and/or devices allow the direct, seamless, and satisfactory exchange of information and services between the users of those systems and devices.

INCIDENT COMMAND SYSTEM (ICS): Combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for management of assigned resources to effectively direct and control the response to an incident.

Intended to expand, as situation requires larger resources, without requiring new, reorganized command structure.

INCIDENT RESPONSE: The response of an organization to a disaster or other significant event that may significantly impact the organization, its people, or its ability to function productively. An incident response may include evacuation of a facility, initiating a disaster recovery plan, performing damage assessment, and any other measures necessary to bring an organization to a more stable status.

INTEGRATED TEST: A test conducted on multiple components of a plan, in conjunction with each other, typically under simulated operating conditions.

MISSION-CRITICAL APPLICATION: An application that is essential to the organization's ability to perform necessary business functions. Loss of the mission-critical application would have a negative impact on the business, as well as legal or regulatory impacts.

MULTI-AGENCY COORDINATION (MAC): MAC provides alternative organizational structures to facilitate multiple agencies working together.

MULTI-AGENCY COORDINATION SYSTEM (MACS): Part of California's State Emergency Management System and the Federal National Incident Management System Incident Command System. MACS provides the basic architecture for facilitating the allocation of resources, incident prioritization, coordination and integration of multiple agencies for large-scale incidents and emergencies.

NATURAL THREATS: Events caused by nature that have the potential to impact an organization.

NETWORK OUTAGE: An interruption in system availability resulting from a communication failure affecting a network of computer terminals, processors, and/or workstations.

OPERATIONAL EXERCISE: One method of exercising teams in which participants perform some or all of the actions they would take in the event of plan activation. Operational exercises, which may involve one or more teams, are typically performed under actual operating conditions at the designated alternate location, using the specific recovery configuration that would be available in a disaster.

OPERATIONAL IMPACT ANALYSIS: Determines the impact of the loss of an operational or technological resource. The loss of a system, network or other critical resource may affect a number of business processes.

OPERATIONAL TEST: A test conducted on one or more components of a plan under actual operating conditions.

PEER REVIEW: One method of testing a specific component of a plan. Typically, the component is reviewed for accuracy and completeness by personnel (other than the owner or author) with appropriate technical or business knowledge.

PLAN MAINTENANCE PROCEDURES: Maintenance procedures outline the process for the review and update of business continuity plans.

RECIPROCAL AGREEMENT: Agreement between two organizations (or two internal business groups) with basically the same equipment/same environment that allows each one to recover at each other's site.

RECOVERY: A process that begins with its efforts in pre-disaster preparedness, including coordinating with whole community partners, mitigating risks, incorporating continuity planning, identifying resources, and developing capacity to effectively manage the recovery process, and through collaborative and inclusive planning processes. Collaboration across the whole community provides an opportunity to integrate mitigation, resilience, and sustainability into the community's short- and long-term recovery goals.

RECOVERY PERIOD: The time period between a disaster and a return to normal functions, during which the recovery plan is employed.

RESPONSE: The reaction to an incident or emergency to assess the damage or impact and to ascertain the level of containment and control activity required. In addition to addressing matters of life safety and evacuation, Response also addresses the policies, procedures and actions to be followed in the event of an emergency. 1) The step or stage that immediately follows a disaster event where actions begin as a result of the event having occurred. SIMILAR TERMS: Emergency Response, Disaster Response, Immediate Response, and Damage Assessment.

RESTORATION: Process of planning for and/or implementing procedures for the repair or relocation of the primary site and its contents, and for the restoration of normal operations at the primary site.

RESUMPTION: The process of planning for and/or implementing the restarting of defined business operations following a disaster, usually beginning with the most critical or time sensitive functions and continuing along a planned sequence to address all identified areas required by the business. 1) The step or stage after the impacted infrastructure, data, communications and environment has been successfully re-established at an alternate location.

RISK: Potential for exposure to loss. Risks, either man-made or natural, are constant. The potential is usually measured by its probability in years.

RISK ASSESSMENT / ANALYSIS: Process of identifying the risks to an organization, assessing the critical functions necessary for an organization to continue business operations, defining the controls in place to reduce organization exposure and evaluating the cost for such controls. Risk analysis often involves an evaluation of the probabilities of a particular event.

RISK MITIGATION: Implementation of measures to deter specific threats to the continuity of business operations, and/or respond to any occurrence of such threats in a timely and appropriate manner.

SIMULATION EXERCISE: One method of exercising teams in which participants perform some or all of the actions they would take in the event of plan activation. Simulation exercises, which may involve one or more teams, are performed under conditions that at least partially simulate 'disaster mode'. They may or may not be performed at the designated alternate location, and typically use only a partial recovery configuration.

STANDALONE TEST: A test conducted on a specific component of a plan, in isolation from other components, typically under simulated operating conditions.

STATE OPERATIONS CENTER (SOC): A Multi-Agency Coordination Center (MACC) used by state, federal, local and volunteer agencies, as well as private sector organizations to respond to disasters or emergencies that require a coordinated state response. It also includes the state's 24 hour warning center.

STRUCTURED WALKTHROUGH: One method of testing a specific component of a plan. Typically, a team member makes a detailed presentation of the component to other team members (and possibly non-members) for their critique and evaluation.

SUBSCRIPTION: Contract commitment that provides an organization with the right to utilize a vendor recovery facility for processing capability in the event of a disaster declaration.

SYSTEM DOWNTIME: A planned or unplanned interruption in system availability.

TABLE TOP EXERCISE: One method of exercising teams in which participants review and discuss the actions they would take per their plans, but do not perform any of these actions. The exercise can be conducted with a single team, or multiple teams, typically under the guidance of exercise facilitators.

TEST: An activity that is performed to evaluate the effectiveness or capabilities of a plan relative to specified objectives or measurement criteria. Types of tests include: Desk Check, Peer Review, Structured Walkthrough, Standalone Test, Integrated Test, and Operational Test.

TEST PLAN: A document designed to periodically exercise specific action tasks and procedures to ensure viability in a real disaster or severe outage situation.

UNINTERTUPTIBLE POWER SUPPLY (UPS): A backup supply that provides continuous power to critical equipment in the event that commercial power is lost.

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APPENDIX C GLOSSARY (ACRONYM LIST)

AAR	After-Action Report
AAR/IP	After Action Report/Improvement Plan
BOL	Bills of Laden
CA-ESF	California Emergency Support Functions
CALEOC	California WebEOC
CALEPA	California Environmental Protection Agency
CALOES	California Governor's Office of Emergency Services
CALTRANS	California Department of Transportation
CALVOL	California Volunteers
CDFA	California Department of Food and Agriculture
CDGS	California Department of General Services
CDPH	California Department of Public Health
CDSS	California Department of Social Services
CEC	California Energy Commission
CGC	Continuity Guidance Circular
CHHS	California Health and Human Services
CI/KR	Critical Infrastructure/Key Resources
CIRT	Computer Incident Response Team
CMD	Command
COG	Continuity of Government
CONOPS	Concept of Operations
COOP	Continuity of Operations
CSWC	California State Warning Center
CTA	California Transpiration Agency
CUEA	California Utilities Emergency Association
DFA	Direct Federal Assistance
DHS	U.S. Department of Homeland Security
DLA	Defense Logistics Agency
DOC	Department Operations Center
DoD	Department of Defense
EDO	Executive Duty Officer
EEG	Exercise Evaluation Guidelines
EM	Emergency Management
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
EXPLAN	Exercise Plan
FCD	Federal Continuity Directive
FEMA	Federal Emergency Management Agency
FMS	Federal Medical Stations
FOO	Fuels Ordering Officer
FOS	Federal Operations Support
FSA	Federal Staging Area
GOA	California Government Operations Agency
GIS	Geographic Information Systems
HAZMAT	Hazardous Materials
HQ	Headquarters
HSEEP	Homeland Security Exercise and Evaluation Program
HSIN	Homeland Security Information Network
HW	Hot Wash

IAA	Interagency Agreement
ICS	Incident Command System
IMAT	Incident Management Assistance Team
IOF	Initial Operating Facility (Joint)
IP	Improvement Plan
IT	Information Technology
ISB	Incident Support Base
JFO	Joint Operations Center (State/Federal)
JIC	Joint Information Center
MA	Mission Assignment
MEF	Mission Essential Functions
MIU	Mobile Interoperability Unit
MIGU	Mobile Interoperability Gateway Unit
MOB	Management by Objective
MOU	Memorandum of understanding
NASEO	National Association of State Energy Officials
NGO	Non-Government Organizations
NIPP	National Infrastructure Protection Program
NRCC	National Response Coordination Center
NRF	National Response Framework
NIMS	National Incident Management System
OA	Operational Area
OASIS	Operational Area Satellite Information System
PI	Public Information
PIO	Public Information Office
POD	Point of Distribution
PS	Public Safety
PSCO	Public Safety Communications Office
PSMA	Pre-Scripted Mission Assignment
REOC	Regional Emergency Operations Center
RRCC	Regional Response Coordination Center
RRF	Resource Request Form
RSB	Responder Support Base
RSS	Resource Support Section
SA	Situational Awareness
SAR	Search And Rescue
SAT	Senior Activation Team
SEF	State Essential Functions
SEP	State Emergency Plan
SEMS	State Emergency Management System
SOC	State Operations Center
SME	Subject matter expert
SOP	Standard Operating Procedure
STAC	State Threat Assessment Center
TCL	Target Capabilities List
T-COMM	Tele-Communications
TOD	Technology Operations Division
TT&E	Test, Training and Exercise
TTX	Tabletop exercise
UCG	Unified Coordination Group
USGS	Unites States Geological Survey
UTL	Unified Task List