

Regional Catastrophic Earthquake Logistics Response Plan

Annex to the San Francisco Bay Area
Regional Emergency Coordination Plan

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Prepared for:



Bay Area Urban Area
Security Initiative

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This plan has been prepared for the Bay Area Urban Area Security Initiative Approval Authority (Approval Authority) on behalf of the counties and cities in the 12-county Bay Area region. The plan describes the general strategy for emergency response to an incident with regional impact. The plan has been prepared in accordance with the standards of the National Incident Management System, the California Standardized Emergency Management System, and other Federal and State requirements and standards for emergency response plans applicable as of the date of the plan's preparation.

The plan provides guidance only; it is intended for use in further development of response capabilities, implementation of training and exercises, and defining the general approach to incident response. The actual response to an incident, whether at the regional, county, or city level, is dependent on:

- The specific conditions of the incident, including the incident type, geographic extent, severity, timing, and duration
- The availability of resources for response at the time of the incident
- Decisions of Incident Commanders and political leadership
- Actions taken by neighboring jurisdictions, the State, and the Federal Government

These and other factors may result in unforeseen circumstances, prevent the implementation of plan components, or require actions that are significantly different from those described in the plan. The Approval Authority and its contractors; the counties, cities, and other organizations that have participated in plan development; the State; and the Federal Government are not responsible for circumstances related to the implementation of the plan during an incident.

The plan is not applicable outside the 12-county region that comprises the planning area.

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Foreword

The vulnerability of the San Francisco Bay Area to earthquakes is well known. According to the 2008 Uniform California Earthquake Rupture Forecast, the probability of an **M** 6.7 or greater earthquake in the Bay Area in the next 30 years is 63 percent. An earthquake of this magnitude results in widespread and catastrophic damage.

A catastrophic earthquake in the Bay Area will immediately overwhelm local, regional, and State emergency response capabilities. The region will need massive, rapid support from the Federal and State Governments, other local governments in California, other states, and private-sector and voluntary organizations. The effectiveness of the region's response will affect the long-term recovery of the region's communities and economy. An effective response is possible only if comprehensive planning has taken place.

The Federal Government is providing funding under the Regional Catastrophic Preparedness Grant Program (RCPGP) to selected metropolitan areas throughout the United States to plan for catastrophic events. The San Francisco Bay Area is one of the metropolitan areas. The Federal Emergency Management Agency (FEMA) is administering the program. The Bay Area Urban Area Security Initiative (UASI) Program is implementing the RCPGP for 11 counties and 3 cities in the Bay Area. For fiscal year 2010, the UASI Program has used RCPGP funding to prepare regional and local plans for managing logistics response.

This document, the Regional Catastrophic Earthquake Logistics Response Plan (Plan), has been prepared under the RCPGP. Logistics planning is an important component of any response, but it is especially critical in responding to complex events such as the catastrophic earthquake scenario.

This Plan is an annex to the Regional Emergency Coordination Plan, and as such is consistent both with it and with the Regional Emergency Coordination Plan Logistics Subsidiary Plan. It is also consistent with the San Francisco Bay Area Catastrophic Earthquake Readiness Response Concept of Operations Plan prepared by FEMA.

This Plan has been prepared for the Bay Area UASI Approval Authority on behalf of the counties and cities in the 12-county Bay Area region. The Plan describes the general strategy for logistics-specific emergency response to an incident with regional impact. The Plan has been prepared in accordance with the standards of the National Incident Management System, the California Standardized Emergency Management System, the National Response Framework, the Homeland Security Exercise and Evaluation Program, and other Federal and State requirements and standards for emergency response plans that were available and applicable as of the date of the Plan's preparation.

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Table of Contents

1	Introduction	1
1.1	Purpose.....	1
1.2	Objectives	2
1.3	Scope and Definitions	2
1.3.1	Nature and Duration of the Scenario Event.....	2
1.3.2	Geographic Scope.....	2
1.3.3	Time Frame.....	3
1.3.4	Definitions of Key Terms	3
1.4	Applicability	3
1.4.1	Regional Emergency Coordination Plan and Logistics Subsidiary Plan.....	3
1.4.2	San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan	4
1.5	Plan Organization.....	4
1.6	Authorities, Regulations, and Requirements	5
1.6.1	Local.....	5
1.6.2	State.....	5
1.6.3	Federal	6
2	Situation and Assumptions.....	7
2.1	Catastrophic Nature of the Earthquake	7
2.2	General Assumptions	7
2.3	General Logistics Assumptions	8
2.4	Commodity Assumptions.....	10
2.4.1	Fuel	10
2.4.2	Water and Wastewater	10
2.4.3	Sanitation	11
2.4.4	Food.....	11
2.4.5	Generators and Other Mass Care Supplies.....	12
2.5	Transportation System Disruptions	12
3	Roles and Responsibilities	15
3.1	Field	15
3.2	Local Government.....	15
3.3	Operational Area	15
3.4	Region.....	15
3.4.1	California Emergency Management Agency Coastal Region.....	16
3.4.2	Metropolitan Transportation Commission.....	17
3.5	State.....	17
3.5.1	California Emergency Management Agency Headquarters/State Operations Center	17
3.5.2	California Emergency Function 7 – Resources	18
3.5.3	California Energy Commission	18
3.5.4	California Highway Patrol	18

3.5.5	California Department of Forestry and Fire Protection	19
3.5.6	California Department of General Services	19
3.5.7	California National Guard	19
3.5.8	California State Military Reserve	20
3.5.9	California Department of Transportation.....	20
3.6	Private Businesses and Other Non-Governmental Organizations.....	21
3.6.1	California Resiliency Alliance.....	21
3.6.2	Business Operations Center.....	21
3.6.3	Utilities Operations Center.....	21
3.6.4	American Red Cross	21
3.6.5	Northern California Voluntary Organizations Active in Disaster.....	22
3.6.6	Other Non-Governmental Organizations	22
3.7	Federal Government	22
3.7.1	Federal Emergency Management Agency	22
3.7.2	Federal Emergency Management Agency Headquarters Logistics Management Directorate	23
3.7.3	Federal Emergency Management Agency Region IX.....	23
3.7.4	Federal Emergency Management Agency Field Units.....	24
3.7.5	Federal Emergency Support Function #7, Logistics Management and Resource Support.....	24
3.7.6	Federal Emergency Support Function #12, Energy.....	24
3.7.7	U.S. Department of Transportation.....	25
3.7.8	General Services Administration	25
3.7.9	U.S. Department of Defense.....	25
3.7.9.1	U.S. Army Corps of Engineers.....	26
3.7.9.2	Defense Logistics Agency.....	26
3.7.10	Federal Aviation Administration.....	27
3.7.11	U.S. Coast Guard	27
3.7.12	U.S. Department of Health and Human Services	28
3.7.13	U.S. Department of Transportation, Maritime Administration	28
4	Priorities and Objectives	29
4.1	Overview of Priorities and Objectives.....	29
4.2	E to E+72 Hours.....	30
4.2.1	Operational Priorities	30
4.2.2	Objectives.....	30
4.3	E+72 Hours to E+14 Days.....	31
4.3.1	Operational Priorities	31
4.3.2	Objectives.....	31
4.4	E+14 Days to E+60 Days	32
4.4.1	Operational Priorities	32
4.4.2	Objectives.....	32
5	Coordination and Communication	33
5.1	Activation of the Logistics Support Framework.....	33
5.1.1	Field.....	33

5.1.2	Local Governments	34
5.1.3	Operational Areas	34
5.1.4	Cal EMA Coastal Region.....	35
5.1.4.1	Regional Coordination Group	35
5.1.4.2	Commodity Distribution Task Force.....	35
5.1.5	State of California.....	36
5.1.6	Federal Government	36
5.1.6.1	Joint Field Office.....	36
5.1.6.2	Unified Coordination Group	37
5.1.7	American Red Cross	37
5.1.8	Other NGOs	38
5.2	Information and Communication	38
5.2.1	Intelligence and Information Sharing.....	38
5.2.2	Public Information.....	38
6	Concept of Operations	41
6.1	Activating the Logistics Support System	41
6.1.1	National Distribution Centers.....	42
6.1.2	National Logistics Staging Areas.....	42
6.2	Establishing Receiving, Staging, and Distribution Sites	42
6.2.1	Local Logistics Staging Areas	43
6.2.2	Points of Distribution	44
6.3	Commodity Distribution	44
6.3.1	Alternative Distribution Methods.....	45
6.3.2	Types of Commodities.....	45
6.3.2.1	Water.....	45
6.3.2.2	Food	46
6.3.2.3	Fuel.....	46
6.3.2.4	Sanitation.....	46
6.3.2.5	Medical supplies	47
6.3.2.6	Generators.....	47
6.3.2.7	Other commodities.....	47
6.4	Resource Coordination.....	47
6.4.1	Requesting Commodities	47
6.4.2	Commodity Sources	48
6.4.2.1	Government-Provided Commodities.....	48
6.4.2.2	Donated Commodities	48
6.4.2.3	Procurement and Contracting.....	48
6.5	Resource Movement and Distribution	49
6.5.1	Axes of Movement.....	49
6.5.2	Commodity Distribution Flow.....	50
6.5.3	Transportation of Commodities	51
6.5.4	Resource Tracking	52
6.5.4.1	Response Information Management System/WebEOC.....	52
6.5.4.2	National Donations Management Network	52
6.5.4.3	California Resiliency Alliance Disaster Asset Registry.....	52

6.6	Lifeline Restoration.....	52
6.6.1	Lifeline Interdependencies.....	53
6.7	Transition to Long-Term Recovery	53
7	Plan Maintenance.....	55
7.1	Plan Distribution	55
7.2	Plan Updates.....	55
7.3	Plan Testing, Training, and Exercises	55
7.4	After-Action Review and Corrective Action.....	56
Appendix A	Glossary	
Appendix B	Maps	
Appendix C	Scenario and Assumptions Details and HAZUS Description	
Appendix D	Logistical Capability Assessment Report	
Appendix E	Sample Press Releases and Public Information Announcements	
Appendix F	Response Timeline	
Appendix G	Critical Lifelines	
Appendix H	Commodity Points of Distribution	
Appendix I	Critical Information Collection Requirements	
Annexes A–N	Operational Area and Core City Annexes	

1 Introduction

Logistics is an essential component of emergency response plans at local, regional, State, and national levels to ensure the availability of the right products in the right location at the right time and in the right quantities. Logistics planning for a disaster requires knowledge of the geographic, social, political, cultural, and physical characteristics of the region. In general, logistics planning addresses the following questions:

- What resources are needed and in what quantity?
- How can they be procured?
- How can they be transported to the affected location?
- How can they be received, staged, stored, distributed, and tracked?
- Which organizations have critical roles and responsibilities in the logistics supply chain?
- How is coordination regarding logistics activities achieved between different organizations?

1.1 Purpose

The Regional Catastrophic Earthquake Logistics Response Plan (Plan) is a scenario-driven, function-specific operations plan for the 12-county Bay Area planning region that describes the logistics response system in the aftermath of a catastrophic earthquake on the San Andreas fault.

The Plan provides guidance for the coordinating logistics support necessary to respond effectively to the earthquake for the benefit of those affected by the disaster. It provides logistics-related details for:

- Prioritizing, requesting, procuring, and allocating resources in the Bay Area region.
- Transporting, receiving, warehousing, distributing and tracking of resources in the Bay Area region.
- Applying the Standardized Emergency Management System (SEMS), the National Incident Management Systems (NIMS), and the Incident Command System (ICS) for logistics response operations.
- Coordinating logistics activities among local, regional, State, Federal, private-sector, and non-governmental organizations (NGOs).
- As an event-specific annex to the Regional Emergency Coordination Plan (RECP), the Plan is intended for:
 - The personnel responsible for implementing the RECP, including emergency managers and Regional Emergency Operations Center (REOC) personnel.
 - The agencies, departments, and organizations responsible for implementing logistics response operations in the region.

Finally, this document was developed as an event-specific plan, and the details presented pertain to a catastrophic earthquake. However, the Plan could be scaled easily to smaller earthquakes or to non-seismic disasters such as fires or floods. Where appropriate, this Plan includes suggestions for ways to adapt the Plan to smaller or other types of events.

1.2 Objectives

The objectives of the Plan are to:

- Define planning assumptions for the logistics response based on projected catastrophic impacts of the earthquake
- Identify and describe the logistics-related roles and responsibilities of agencies and organizations
- Identify recommended, time-based priorities and objectives to guide logistics response operations
- Establish a response timeline for individual tasks in logistics support operations

1.3 Scope and Definitions

The Plan pertains to logistics response operations in the 12-county Urban Areas Security Initiative (UASI) planning region, which is defined and discussed below. It addresses the broader regional level response to the disaster and focuses on the interactions between the State of California and the Operational Areas that comprise the planning region.

1.3.1 Nature and Duration of the Scenario Event

As described in the National Response Framework (NRF), a catastrophic event is any natural or human-caused incident that results in an extraordinary level of casualties, damage, or disruption that severely affects the population, infrastructure, environment, economy, morale, and government functions of the area in question, and potentially the nation as a whole.

The scenario used in the development of this Plan is a moment magnitude (**M**) 7.9 earthquake on the northern segment of the San Andreas fault. The impacts from the earthquake are catastrophic. Although the shaking from an earthquake and the aftershocks last only seconds or minutes, recovery can take several years. See **Section 2** and **Appendix C** for more information about the scenario event.

1.3.2 Geographic Scope

The earthquake has a catastrophic impact on the Bay Area region. The Plan includes the following 12 counties (also see maps in **Appendix B**):

- Alameda County
- Contra Costa County
- Marin County

- Monterey County
- Napa County
- San Benito County
- San Francisco County
- San Mateo County
- Santa Clara County
- Santa Cruz County
- Solano County
- Sonoma County

Impacts to these jurisdictions affect local, regional, State, and Federal response and recovery decisions. These counties bear direct and significant impacts, impacts from regional disruption of critical infrastructure systems, and/or short- or long-term impacts to the economy. Counties adjacent to the region, such as Mendocino, Sacramento, San Joaquin, and Stanislaus, may be affected directly by damage or indirectly by evacuations and other response actions, but these counties are not included in this Plan.

1.3.3 Time Frame

The time frame for the Plan begins with the occurrence of the earthquake and ends 60 days after the earthquake. The planning periods (phases) are presented in hours and days after the earthquake or event occurrence (E). The Plan does not address preparedness activities that may occur before the earthquake or long-term activities that occur after 60 days. However, it does provide guidance for initial steps in planning restoration of critical lifelines and the transition to long-term recovery activities.

1.3.4 Definitions of Key Terms

The term “logistics” as used in this Plan refers to the process of planning, implementing, and controlling the efficient, effective flow, storage, and staging of resources from their point of origin to point of use.

Other terms and acronyms used in this plan are listed and defined in **Appendix A**.

1.4 Applicability

As an event-specific, function-specific annex to the RECP, the Plan is consistent with the foundational concepts described in it. The plan is also consistent with the plans listed below.

1.4.1 Regional Emergency Coordination Plan and Logistics Subsidiary Plan

The RECP provides an all-hazards framework for collaboration among responsible entities and coordination during emergencies in the San Francisco Bay Area. The

RECP also defines procedures for regional coordination, collaboration, decision-making, and resource sharing among emergency response agencies in the Bay Area. The Logistics Subsidiary Plan describes the general approach of the California Emergency Management Agency (Cal EMA) and other entities in coordinating the influx of out-of-region and out-of-state resources and commodities that can be expected following a catastrophic incident such as a major earthquake.

1.4.2 San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan

The Plan is also consistent with the San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan (CONPLAN), prepared by the Federal Emergency Management Agency (FEMA) and Cal EMA. The CONPLAN describes the joint State–Federal response to an **M** 7.9 earthquake on the San Andreas fault in the Bay Area and includes an annex describing transportation and logistics response operations. The CONPLAN describes the establishment of a Joint Field Office (JFO) with a Unified Coordination Group that coordinates joint State–Federal operations in support of the response in the Bay Area. The CONPLAN also has a tab for a Transportation and Logistics section, which describes the joint Federal and State Concept of Operations for logistical support to the region.

1.5 Plan Organization

Section 1 – Introduction provides the scope and applicability of the Plan and the authorities, regulations, and requirements that provide the foundation for the logistics operations that are discussed in the Plan.

Section 2 – Situation and Assumptions contains a description of the scenario event and its projected impacts and the assumptions underlying the scenario event and the logistics-specific response to it.

Section 3 – Roles and Responsibilities describes the roles and responsibilities of key organizations at each level of the coordinated logistics response.

Section 4 – Operational Priorities and Objectives contains a listing of the time-based operational priorities and objectives for the logistics-specific response, sorted into three time periods following the earthquake.

Section 5 – Coordination and Communication describes the overall approach to coordinating the establishment of a logistics framework to receive stage, store, track, deploy, and distribute resources and commodities.

Section 6 – Concept of Operations describes the concept of operations, which includes the response coordination system and the operational components of the logistics response operation.

Section 7 – Plan Maintenance describes how the plan is maintained, updated, and executed. It also identifies the agency responsible for maintaining the Plan.

Appendix A is a glossary of acronyms and abbreviations.

Appendix B contains the maps that are referenced in the Plan.

Appendix C provides the background information for how scenario and assumptions details were derived.

Appendix D provides the results of the Logistics Capability Assessment Tool analysis for the region.

Appendix E provides templates for public information releases related to commodity distribution and donations.

Appendix F contains a response timeline for the logistics support component of the response. More specifically, the timeline presents the individual tasks necessary to achieve the objectives and priorities laid out in **Section 4**.

Appendix G contains critical lifeline restoration plans (Fuel Supply Restoration; Electric Power Restoration; Water/Wastewater Restoration).

Appendix H is a guide to commodity points of distribution (PODs).

Appendix I describes critical information collection requirements.

Annexes A–N contain plans for each Operational Area and core city in the region.

1.6 Authorities, Regulations, and Requirements

The following local, regional, State, and Federal authorities, regulations, and requirements apply to the preparation of this Plan and to logistics operations that are conducted in response to a catastrophic earthquake.

1.6.1 Local

In general, local governments, including cities and counties, have primary responsibility for the public health and safety of their residents after disasters of any type. Local authorities for emergency response are described in each county's and city's Emergency Operations Plan.

1.6.2 State

As described in the RECP, emergency response operations are conducted in accordance with the:

- California Emergency Services Act, Government Code (GC) §§ 8550–8668
- California Disaster Assistance Act (CDAA), GC §§ 8680–8692
- Interstate Civil Defense and Disaster Compact and the Emergency Management Assistance Compact (EMAC), GC §§ 177–179
- California Code of Regulations, Title 19, Division 2, which includes SEMS, public assistance, and individual assistance and which also establishes the role of Cal EMA

- California State Emergency Plan
- RECP, Cal EMA Coastal Region, March 2008

1.6.3 Federal

Federal operations in support of local governments and the State are governed by the following:

- Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, 42 United States Code §§ 5121–5206, 2008 (the Stafford Act)
- NRF
- NIMS
- Code of Federal Regulations, Title 44, which defines the roles of the FEMA and the Department of Homeland Security (DHS)

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2 Situation and Assumptions

This section contains a description of those aspects of the scenario earthquake and its projected impacts that pertain specifically to logistics. The scenario earthquake for this Plan is the same as that developed for and used in previous Regional Catastrophic Preparedness Grant Program (RCPGP)-funded planning efforts at the local and regional levels. The full description of the scenario earthquake and the additional general planning assumptions are presented in **Appendix C**. The scenario earthquake is a recurrence of the 1906 earthquake on the northern segment of the San Andreas fault. The basis for the scenario is a Hazards U.S. (HAZUS)¹ model run and analysis, the details of which are also presented in **Appendix C**.

2.1 Catastrophic Nature of the Earthquake

Threats and hazards resulting from the earthquake include structural and non-structural damage to buildings and infrastructure, fires, subsidence and loss of soil-bearing capacity, landslides, hazardous materials spills and incidents, dam/levee failure resulting in flooding, and civil disorder. Many residential, commercial, and industrial buildings would be rendered uninhabitable. The earthquake would significantly affect all regional utilities and transportation networks; large portions of the transportation infrastructure would be damaged or destroyed. Utility and water supply damage, even in areas with less extreme structural impacts, would compound the problem of housing people. Most Internet connectivity, telephone lines, and cellular telephone systems are damaged, causing communication difficulties throughout the region.

The earthquake would result in:

- More than 400,000 displaced residents
- More than 300,000 people seeking shelter
- More than 1 million people who need transportation assistance
- 2.9 million households without electricity
- 1.8 million households without potable water
- 7,000 fatalities
- 50 million tons of debris

2.2 General Assumptions

- Within 24 hours:
 - County administrators proclaim local emergencies.

¹ HAZUS is a loss-estimation software program developed by the National Institute of Building Sciences for the Federal Emergency Management Agency. The version used for this analysis (HAZUS-MH MR3) was developed by National Institute of Building Sciences in 2003.

- The Governor proclaims a State of Emergency and requests that the President declare a disaster. The proclamation allows for State-funded financial assistance, in accordance with CDAA, GC §§ 8680–8692.
- The President declares a Major Disaster, making Federal assistance available under the Stafford Act.
- DHS and FEMA implement the NRF Catastrophic Incident Supplement and begin mobilizing Federal resources.
- DHS activates or elevates the level of activation of all DHS command and coordinating facilities.
- Cal EMA activates the REOC and the State Operations Center (SOC).
- The FEMA Region IX Regional Response Coordination Center in Oakland is not functional. FEMA co-locates with Cal EMA at the SOC until a JFO is established.
- Outside the affected region, all elements of SEMS, including communications and mutual aid systems, are functional.
- Operational Area Emergency Operations Centers (EOCs) in the region experience varying degrees of damage but are at least partly operational. All other local government functions in the Operational Areas are either severely compromised or are focused entirely on responding to the earthquake.
- Response capabilities and resources of the cities, Operational Areas, and State agencies in the region are quickly overwhelmed or exhausted.
- Operational Area EOCs are overwhelmed and challenged to coordinate the Operational Area response effectively.
- A detailed and credible common operating picture cannot be achieved for 24 to 48 hours (or longer) after the disaster. As a result, response activities begin without the benefit of a detailed and complete situation or critical needs assessment.
- First responders, providers of recovery services, and other critical response personnel are personally affected by the disaster and may be unable to report to their posts for days because of damaged transportation infrastructure.
- Once the President declares a disaster and commits Federal resources, the State and Federal governments establish joint operations to provide assistance to local jurisdictions.
- Because of damage to transportation infrastructure, out-of-region mutual aid, State and Federal resources, and resources from other states cannot begin to arrive for up to 72 hours.

2.3 General Logistics Assumptions

The following assumptions pertain specifically to logistical constraints, capabilities, and expectations of the logistical framework after the earthquake.

- Responding effectively to the needs of impacted communities after a catastrophic event requires a vast amount of resources.
- Nearly 5 million people may require bottled or other potable water supplies due to disruption of regional water distribution systems. Lack of water and sanitation results in emerging public health crises in the hardest-hit areas (Marin, San Francisco, San Mateo, Santa Clara, and Santa Cruz counties). Restoration and repair of water distribution systems requires at least 8 weeks.
- Approximately 2.2 million people require feeding and other basic life-sustaining commodities due to lack of services, loss of residence, or because they are visitors or commuters who are stranded.
- Existing stockpiles of critical life-sustaining commodities are limited. The supply by contractors and distribution capabilities is severely compromised by the overwhelming need and the damage to facilities and transportation infrastructure.
- Massive assistance in the form of response teams, equipment, materials, and volunteers begin to flow toward the region, providing urgently needed resources but creating coordination and logistical support challenges.
- Resource requirements to support response and recovery for a catastrophic earthquake are great; and they are necessary over an extended period.
- In-state mutual aid, EMAC, and Federal and private-sector resources are required to support extended operations.
- Staging areas, temporary facilities for incident command posts and other field operations centers, and disaster service worker living accommodations and support are required to support response efforts.
- Military (Department of Defense, the Reserves, and National Guard) resources may be limited or not available to support operations due to other national security mission requirements.
- Many resources necessary to support an effective response are in short supply and may need to come from a long distance.
- Staging areas, PODs, and other locations supporting emergency response require security in varying degrees.
- Due to the impacts of the earthquake and the limited amount of lodging available on any given day, disaster service workers may be required to live in austere conditions for an extended period.
- Damage to transportation infrastructure, including the region's ports and shipping channels and its three major international airports, requires extensive repairs before large quantities of commodities can be received by sea or air.
- Due to damage to transportation infrastructure, jurisdictions have to consolidate some operations and share resources.
- Private businesses that provide lodging, food, services, and fuel near the affected area and along evacuation routes may be closed, have limited supplies and resources, or be overwhelmed with civilian customers.

- Many private businesses have resources and desire to assist in the response, but implementation varies based on a company's understanding of how best to integrate with the system.
- Donations, both needed and unneeded, arrive in large numbers. Staging and storage facilities are necessary.
- Although NIMS and ICS are national standards employed by all compliant government agencies, in-state and out-of-state mutual aid workers and volunteers arrive with varying degrees of experience and understanding of these basic emergency response principles and guidelines.
- Housing in or near the affected communities must be provided to first responders and recovery personnel. This may further exacerbate the housing shortage for displaced households.
- The initial capability to provide support (e.g., shelter, food, sanitation) to emergency response personnel does not meet requirements.
- Facilities identified to support a specific function may not be available due to potential or identified damage or due to a lack of basic utilities.
- Facilities designed for a particular function before a disaster may be redefined to support more critical functions.

2.4 Commodity Assumptions

The following assumptions refer to the need and availability of critical commodities.

2.4.1 Fuel

Assumptions for need and availability of fuel are:

- Damage to marine terminals, oil refineries, fuel transmission lines, and fuel dispensaries limits the availability of fuel needed to support immediate and follow-on response operations, the movement of evacuees and resources, and power generation.
- Damage to Bay Area refineries and the fuel distribution and delivery infrastructure causes not only a shortage of fuel in the Bay Area but also shortages across the nation.
- The quantity of fuel needed to support response operations and other critical functions is inadequate, requiring the prioritization of fuel allocations.
- Power outages make it difficult to pump gas out of the ground at most Bay Area gas stations.
- Due to widespread power outages, generated power, which requires fuel to produce, is critical for supporting response operations and sustaining other critical operations; this places a further demand on the fuel supply.

2.4.2 Water and Wastewater

Assumptions for need and availability of water and wastewater are:

- Damage to potable water treatment and distribution systems and the loss of electrical power creates a significant challenge and makes potable water a priority commodity.
- Critical pipelines, tunnels, bypasses, pumping stations, supply lines, and feeder mains fail, negatively impacting the provision of water.
- A massive, coordinated emergency potable water distribution system is necessary to support disaster service workers and sustain populations in the region.
- Some private companies may provide supplies of bottled water and should be incorporated into the potable water distribution system.
- Water utility companies operate based on their own water recovery and distribution plans, but water supply resources are insufficient, resulting in the request for and need to acquire water from sources outside the region.
- Resources to move the water, such as water tenders, are very limited and require prioritization.
- Chemicals needed for water treatment/decontamination may not be readily available because of hazardous materials restrictions, damage to chemical storage facilities, and transportation infrastructure damage.

2.4.3 Sanitation

Assumptions for need and availability of sanitation are:

- Existing wastewater/sanitation systems are inoperative due to lack of power, damage to treatment plants, and damage to wastewater collection and pumping systems. Restoration and repairs require months. The need for portable/temporary sanitation systems is critical to preserve public health.
- A small percentage of the population remains in impacted areas after the recommendations/orders for evacuation are carried out; they need to be supported with sanitation, food, and water.
- Portable toilets, hand washing stations, and portable showers are required to support response personnel and sheltering populations.

2.4.4 Food

Assumptions for need and availability of food are:

- Widespread power outages cause perishable foods to spoil, leaving only non-perishable foods. Most households have not stored sufficient supplies of non-perishable food necessary to sustain life adequately until power and water are restored and food distribution systems have been reestablished.
- Significant impacts to the food supply chain due to damage to grocery stores, warehouses, and food distribution centers, in combination with disruptions to the transportation system, limit the amount of food available in the region.

- Initially, feeding programs provide packaged food like meals, ready-to-eat (MREs); they expand to include warm, prepared food as mobile kitchens are established.
- In addition to shelter populations, households choosing to shelter in their homes also require food and water.
- Disaster service workers need food and water in order for them to respond effectively and continue operations.

2.4.5 Generators and Other Mass Care Supplies

Assumptions for need and availability of generators and mass care supplies are:

- The requirements for resources such as blankets, cots, potable water, and food exceed stockpiles maintained by State and Federal departments and agencies.
- Due to widespread power outages, generated power is required to sustain critical functions. Both the number of generators and fuel availability is limited, making prioritization of these resources necessary.
- The American Red Cross (ARC) assumes that approximately 1.7 million people sheltering in place require food support due to power and water outages and disruptions to food distribution and retail systems. These people need food, water, first-aid supplies, tents, blankets, and other supplies from distribution locations and/or shelters until utility service and retail food distribution are restored.

2.5 Transportation System Disruptions

The following assumptions refer to disruptions in the transportation system that constrain the ability of all levels of government to push resources into the region.

- The earthquake significantly affects all regional transportation networks and their ability to facilitate the movement of people and supplies. Large portions of the transportation infrastructure are likely to be damaged or destroyed, precluding their use for both normal transportation and evacuation.
- Transportation of first responders, commodities, and other required resources into the Bay Area is significantly affected by damage to transportation infrastructure, debris removal operations, inspections, and closures for repairs.
- The time required to restore damaged infrastructure increases the effects of the earthquake on employees in the region, impeding access to critical facilities and infrastructure; further disrupting transportation systems; depleting critical resources, particularly fuel; increasing the need for critical equipment; and other cumulative impacts.
- Extensive damage to the infrastructure, equipment, and operations for all modes of transportation affects the ability of all levels of government and the private sector to:
 - Complete transportation damage/functionality assessments.

- Establish ingress and egress routes.
- Initiate evacuation operations.
- Move emergency service workers into the affected areas.
- Deliver resources.
- Provide security and logistics required for response operations.
- Rail systems in the affected area suffer a significant reduction in or complete loss of operational capacity because of compromised rail beds and track alignments, displacement, ground failures, and structural damage to aerial structures and bridges.
- The three regional international airports (Oakland, San Francisco, and San Jose) sustain moderate to severe damage.
 - Airport operations—including passenger-plane runways, lighting, terminal facilities, control towers, terminal buildings, cargo handling facilities, and access roads—are likely to be damaged and may be inoperable for 60 days or longer.
 - Initially, these airports are available only to small fixed-wing and rotary aircraft. Air operational capability for large fixed-wing aircraft may be restored within a week, but many of the fueling, servicing, and cargo-handling facilities remain inoperable for a longer period.
 - Passenger operations may be delayed for 15 days or longer.
- Roadways leading to the three international airports—such as U.S. Highway 101 to San Francisco; Interstate 880 to Oakland; and U.S. Highway 101, Interstate 880, and State Route 17 to San Jose—are damaged, constraining access to the airports and further limiting their usefulness.
- Cargo-handling facilities at the ports are expected to sustain significant damage. Piers, harbors, buildings, cranes, and rail lines are likely to be damaged. Key cargo-handling infrastructure could be non-functional for 60 days or more. Containerized cargo operations are temporarily rerouted among Bay Area terminals or diverted to other West Coast ports. Emergency logistics may require use of roll-on/roll-off terminals.
- Existing ferry terminals, which are located in Alameda, Marin, San Francisco, and Solano counties, may be damaged. Through the establishment of temporary facilities and emergency repairs, ferry service is available almost immediately. Maritime transportation routes, facilities, and assets may be the best immediate means for transportation of first responders, disaster service workers, emergency materials, and evacuations.

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3 Roles and Responsibilities

This section discusses the roles and responsibilities of the government agencies, private businesses, and NGOs that are involved in logistics response operations. The sections are organized by SEMS levels to reflect the fact that resource requests follow SEMS protocols.

3.1 Field

In accordance with SEMS and NIMS, the management of an incident occurs at the lowest level possible. The Incident Commander coordinates the support needs for the response to the incident, such as ordering resources and providing facilities, transportation, supplies, equipment maintenance and fuel, food service, communications, and medical services for incident personnel. The operation of receiving centers, staging areas, PODs, storage facilities, warehouses, and other logistics support sites are also operated at the field level, although staff from all levels may support these sites.

3.2 Local Government

Local governments coordinate support for field level operations by providing resources, commodities, and logistical support. Local governments are responsible for the establishment, management, and operation of receiving centers, storage facilities, local logistics staging areas (LSAs), and PODs. While local governments continue to plan and prepare to meet these capabilities, in a catastrophic event it is unlikely local governments are able to operate these logistical support sites at the scale necessary to support their communities. If a local government lacks the capabilities to establish and operate these sites, it requests support through the Operational Area.

3.3 Operational Area

An Operational Area coordinates information, resources, and decisions regarding priorities among local governments, NGOs, and private businesses in the Operational Area boundaries, including activation of the Operational Area EOC. It also serves as a coordinating link between local and regional SEMS levels. During a disaster impacting multiple Operational Areas in the region, Operational Area EOCs coordinate the establishment of the system for receiving, staging, and distributing commodities. This may include coordinating with local governments for the activation of receiving centers, storage facilities, LSAs, and PODs. Operational Areas are also responsible for coordinating the integration of requested response personnel and equipment.

3.4 Region

The purpose of the region is to provide for the more effective application and coordination of mutual aid and other emergency services in support of Operational

Areas. The regional level manages and coordinates information and resources among Operational Areas in the region and also between the Operational Areas and the State level. The regional level is also responsible for coordinating overall State agency support for emergency response activities in the region.

SEMS guidance for the regional level is primarily but not exclusively directed at regional facilities and systems that administer or coordinate mutual aid for the region. These would include Cal EMA REOCs and discipline-specific regional mutual aid coordinators (for example, fire, law, medical).

Other State agency administrative and operational sub-levels also have a regional structure; for example, California Highway Patrol (CHP) divisions, California Department of Transportation (Caltrans) districts, California Department of Forestry and Fire Protection (CAL FIRE) and California Department of Fish and Wildlife regions. The region also includes other multi-jurisdictional organizations like the Metropolitan Transportation Commission (MTC).

3.4.1 California Emergency Management Agency Coastal Region

The Coastal Region of Cal EMA oversees Region II of the Mutual Aid System and the Coastal Administrative Region. When activated, the Cal EMA Coastal REOC coordinates the emergency activities of State agencies in the region and uses the resources of those agencies to fulfill mission requests to support emergency operations when requested by an Operational Area. The Regional Mutual Aid Coordinators and the REOC work together to coordinate mutual aid and other assistance among Operational Areas in the region, as needed. The primary role of the REOC is the coordination of information and resources in the region. The REOC also coordinates with the SOC. To support logistics operations in the region, the REOC:

- Works with the Operational Areas to identify requirements for commodities and resources to support commodity distribution operations
- Works with the Operational Areas to identify appropriate locations for staging areas and other facilities
- Coordinates in-bound commodities with the Operational Areas to ensure that these commodities are ready to be received and are supported appropriately
- Coordinates the acquisition of the necessary personal, equipment, and sites to assist the Operational Areas with logistics by mission-tasking State agencies or other means

For an event of this scale, the region deploys liaisons to the Operational Area EOCs in collaboration with Federal Government representatives to ensure that deployed commodities are supported logistically, arrive as requested, and are sufficient to meet requirements.

3.4.2 Metropolitan Transportation Commission

The MTC serves as the coordinating entity for transportation planning and investment in a nine-county region of the Bay Area. In a disaster that requires mass transportation/evacuation, MTC's logistics support role is to:

- Coordinate the response of Bay Area transit resources among mass transportation agencies
- Coordinate with Cal EMA to identify regional transportation needs
- Coordinate activities under the San Francisco Bay Area Transit Operators Mutual Aid Agreement through which transit agencies provide requested support if the needs for resources or capabilities of an individual agency are exceeded
- Collect information from the region's transit agencies to provide a common operating picture of transportation issues in the region

3.5 State

The State level is responsible for coordinating resource requests and resolving priority issues that might arise at the regional level among the three Cal EMA Administrative Regions. Cal EMA also administers financial assistance provided by FEMA and State assistance offered under the CDAA when available.

The State agencies listed below have critical roles in establishing or supporting specific components of the logistics support system.

3.5.1 California Emergency Management Agency Headquarters/State Operations Center

The SOC is located at the Cal EMA Headquarters in Mather and supports the regions. When activated, the SOC supports the activated REOC(s), coordinates the emergency activities of State agencies, and coordinates mutual aid at the State level. The SOC may activate the Business Operations Center (BOC) and the Utilities Operation Center (UOC) to facilitate coordination with private sector partners on resource issues and utilities on lifeline restoration.

The SOC also provides the primary point of contact among the State, FEMA, other Federal agencies, and with other states through the Interstate Civil Defense and Disaster Compact and EMAC. If dictated by the magnitude and duration of an event, regional and State support of emergency activities may transition to a JFO in order to co-locate operations with FEMA and other Federal agencies.

The SOC works to acquire resources that are not available or cannot be provided at the regional level. The SOC may request resources from other regions in the State, from State agencies, from other states—either through the Interstate Civil Defense and Disaster Compact or through EMAC—or from the Federal Government. To provide logistics support, the SOC:

- Projects commodity needs for the region

- Coordinates the pre-positioning of commodities for deployment to the region
- Identifies State staging areas and other support facilities, including property owned or managed by State agencies
- Coordinates State provision of labor and materials-handling equipment at these locations
- Identifies State resources that can be used to transport commodities, such as assets provided by the California National Guard, including prioritization and use of air assets

3.5.2 California Emergency Function 7 – Resources

California Emergency Function 7 – Resources (EF-7) provides an organizational structure to coordinate State support for managing resource operations. EF-7 coordinates plans and activates to locate, procure, and pre-position resources to support emergency operations. EF-7 may function as part of the REOC, SOC, or JFO organization and works with personnel from Federal Emergency Support Function #12, Energy (ESF #12), to provide joint support to the affected region. The California State Consumer Services Agency leads EF-7.

3.5.3 California Energy Commission

The California Energy Commission maintains the State's Petroleum Fuels Set-Aside Program, which is a formal allocation program used to ensure that fuel supplies are available to emergency responders during a widespread or prolonged shortage. For additional information about this program and the agency's efforts to support the sustainment of the fuel lifeline, see **Appendix G, Tab 1**.

3.5.4 California Highway Patrol

The CHP is responsible for enforcing the provisions of the California Vehicle Code, especially in areas of State responsibility, and for providing police protection of State assets. The CHP supports emergency logistics by providing a security escort for pre-identified shipments of commodities, supplies, and other resources that come from outside the region. The CHP is responsible for these shipments over State and Federal highways; it is also responsible for them under any contracted arrangements that may exist with local law enforcement. In the absence of contract arrangements to provide traffic law enforcement to local governments, the responsibility of escorting such shipments transfers to local law enforcement once the shipments enter local roadways.

The 12 counties covered by this Plan are in the CHP's Golden Gate Division (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties) and Coastal Division (which covers Santa Cruz, Monterey, and San Benito Counties, among others outside of the Plan area). Each county is organized into one or more area offices.

3.5.5 California Department of Forestry and Fire Protection

CAL FIRE provides fire protection and stewardship of designated State responsibility areas in California's privately owned wild lands. CAL FIRE provides varied fire suppression, urban search and rescue, hazardous materials response, and emergency medical services through contracts with local governments in multiple Bay Area counties. Due to its size and major incident management experience, CAL FIRE's incident management teams have played a lead role in the management of major incidents across California and nationally, including the Loma Prieta and Northridge earthquakes.

CAL FIRE has extensive experience in managing logistical operations, including organizing, staffing, and operating staging areas for emergency responder resources, bases, and camps to feed and otherwise support first responders during incidents. CAL FIRE maintains relationships with vendors who provide support services to camps and other logistical operations.

3.5.6 California Department of General Services

California Department of General Services (DGS) provides a variety of services to State agencies in a non-emergency and emergency capacity, including procurement and acquisition solutions, real estate management and design, state-of-the-art telecommunications, and transportation. DGS also:

- Maintains an emergency supply matrix for California, a list containing 20 of the most needed commodities for evacuation centers and has identified methods and resources to obtain and deliver these commodities quickly
- Uses an e-procurement system that is available to all DGS customers (including counties, cities, the California State University system, the University of California system, and junior colleges)
- Maintains close working relationships with real estate owners throughout the State and can identify and obtain access to vacant properties within a matter of hours
- Coordinates with the Emergency Partnership Advisory Workgroup to secure agreements between affected governments and the private sector during disasters and to integrate and engage the private sector as a full partner in all phases of emergency management
- Uses California's participation in the Western States Contracting Alliance to gain significant purchasing leverage in obtaining commodities and resource support required to respond to the incident

3.5.7 California National Guard

The California National Guard is the component of the U.S. National Guard in the State of California and includes Army and Air National Guard components. The Constitution of the United States charges the National Guard with dual Federal and State missions, making the National Guard the only U.S. military force that is empowered to function on a State basis. National Guard functions range from limited

actions during non-disaster situations to full-scale enforcement of martial law when local law enforcement cannot maintain civil control. The President or Congress may also call the National Guard into Federal service.

The Governor of California may call individual members or units of the California National Guard into State service during disasters when deemed appropriate by the Governor. In the response to a disaster, the California National Guard supports Cal EMA.

The California National Guard participates in State-wide law enforcement, security, and evacuation activities through coordination with the Cal EMA Law Enforcement Branch, CHP, California Department of Justice, California Department of Corrections, CAL FIRE, and other State agencies.

3.5.8 California State Military Reserve

The mission of the California State Military Reserve (CSMR) is to provide an adequately trained and organized State military reserve force under the exclusive control of the Governor. When the Guard is federalized or otherwise not available, the CSMR is meant to be capable of accomplishing those State emergency responsibilities normally assigned to the National Guard.

The CSMR is a volunteer operational force upon which the California National Guard depends. Its members are subject to be called to State active duty by the Governor of the State of California.

3.5.9 California Department of Transportation

Caltrans is the owner and operator of the State highway system. Its disaster response priorities include damage assessment and route recovery on State highways. The 12 counties covered by this Plan are in either Caltrans District 4 or Caltrans District 5. Caltrans District 4 is responsible for State roadways and bridges (with the exception of the Golden Gate Bridge) in nine counties in the San Francisco Bay Area, all of which are covered by this Plan (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma). Caltrans District 5 is responsible for the State roadways and bridges in five counties along the coast, including the remaining three counties covered by this Plan (Santa Cruz, Monterey, and San Benito).

During a disaster, Caltrans activates its EOC, which collects information and defines priorities for the response. Caltrans District 4 also operates the region's Transportation Management Center (TMC) in its Oakland office in partnership with the CHP. The TMC is co-located with the District EOC and operates 24 hours a day. Similarly, Caltrans District 5 operates the region's TMC, which is located in its San Luis Obispo office, in partnership with the CHP.

Each regional TMC contains functional sections, such as communications, traffic management, the CHP, the 511 Traveler Information Center, and a separate unit that functions like an EOC until the Caltrans EOC has been activated. The

responsibility for the initial determination of the open/close status of State highway system roads resides with the TMC, but when the Caltrans District EOCs are staffed, the TMC supports the corresponding District EOC.

Caltrans is responsible for coordinating all aspects of transportation, including ground, air, and waterway transportation. In the San Francisco Bay Area, this responsibility is shared with the MTC and Water Emergency Transportation Authority. In a catastrophic earthquake that affects the 12 counties addressed in this Plan, Caltrans Districts 4 and 5 coordinate the emergency response activities.

3.6 Private Businesses and Other Non-Governmental Organizations

The following organizations make much-needed contributions to the logistics response.

3.6.1 California Resiliency Alliance

The California Resiliency Alliance (CRA) is a 501(c)(3) non-profit organization. It facilitates local partnerships between businesses and government to fill important gaps in all phases of emergency management. It works closely with Cal EMA, other State agencies, and local governments as well as with its business and trade association members.

Upon request from Cal EMA, CRA reports to the BOC. CRA has also identified seven private-sector liaisons that can report to Operational Area EOCs in the Coastal Region. In all of these venues, CRA representatives assist by communicating information to and from the private sector and by providing access to private-sector resources.

3.6.2 Business Operations Center

Depending on the scope of the event, the State establishes a BOC at the SOC. The BOC serves as a location for business liaisons to coordinate directly with the State on providing resources and services.

3.6.3 Utilities Operations Center

When an event has major impacts on utilities in the region, the California Utilities Emergency Association activates the UOC to serve as a location for utility liaisons to coordinate restoration efforts and the provision of alternate means of services. The UOC also coordinates the mobilization of in-state and out-of-state resources to provide assistance to local utilities to repair and restore utility infrastructure.

3.6.4 American Red Cross

The ARC logistics operation supports the organization's own disaster response mission in the delivery of the following services:

- Shelter

- Support to people who do not use shelters
- Basic health care and disaster mental health
- Assistance to impacted individuals and families

The ARC also supports impacted residents who do not use shelters—either because they can't access shelters or because they choose to stay in their own residences.

Support for those outside of shelters may include offering the following items:

- Water
- Meals (prepared or packaged)
- Personal sanitation supplies
- Tarps
- Blankets, personal hygiene kits

3.6.5 Northern California Voluntary Organizations Active in Disaster

The Northern California Voluntary Organizations Active in Disaster (NorCal VOAD) improves outcomes for people affected by disasters by facilitating cooperation, communication, coordination, and collaboration among non-profit organizations, community-based groups, government agencies, and for-profit companies. NorCal VOAD may coordinate with NGOs to provide additional support for the operation of PODs and other commodity distribution operations. NorCal VOAD and National VOAD send liaisons to the SOC or JFO to facilitate the integration of voluntary organizations into operations.

3.6.6 Other Non-Governmental Organizations

After a catastrophic disaster, numerous NGOs offer services to impacted communities. While they operate under their own management structures and missions, many NGOs have agreements with local governments to provide services. Others are encouraged to provide liaisons to local government and Operational Area EOCs to coordinate activities.

3.7 Federal Government

In catastrophic events, the Federal government plays a critical support role, providing resource and financial support to States, local governments, businesses, and individuals. The following agencies provide direct support for logistics.

3.7.1 Federal Emergency Management Agency

The roles and responsibilities of FEMA, DHS, and other Federal agencies are described in the NRF. Major responsibilities with regard to logistics include:

- Activation of the FEMA Regional Response Coordination Center at FEMA Region IX in Oakland or at an alternate location; FEMA National Response Coordination Center in Washington, D.C.; and the DHS National Operations

Center in Washington, D.C., to coordinate the initial deployment of Federal resources and commodities

- Immediate deployment of a liaison and subsequent deployment of an incident management assistance team to the SOC to initiate integrated operations with the State
- Activation of logistics support facilities, such as logistics centers, mobilization centers, and Federal staging areas, to support deployment of commodities (see **Section 6** for descriptions of these facilities)
- Deployment of labor and materials-handling equipment for operations at these facilities
- Immediate mobilization of incident-specific commodities identified in the NRF Catastrophic Incident Supplement
- Coordination with the State to plan the transfer of commodities to State control and to identify State and local plans for commodities distribution
- In coordination with the State, deployment of representatives to Operational Area EOCs to ensure that deployed commodities are supported logistically, arrive as requested, and are sufficient to meet requirements
- Tasking of Federal agencies to carry out mission assignments for delivery of commodities in response to State requests

3.7.2 Federal Emergency Management Agency Headquarters Logistics Management Directorate

The FEMA Logistics Management Directorate (LMD) is the primary office for directing and overseeing disaster support for all logistics functions during all incident phases. LMD responsibilities for this event include:

- Establish, maintain, and execute agency-wide logistics plans, policies, procedures, doctrines, standards, and governance
- Develop and maintain national logistics support requirements, capabilities, and visibility of resources
- Provide agency-wide funding, budget, and resource management for logistics
- Provide FEMA Headquarters and Region IX logistics with functional command, coordination, and oversight of all logistics activities (including national resource management at the JFOs and Distribution Centers)
- Coordinate the agency logistics response through the FEMA Logistics Operations Center
- Provide agency-wide logistics information management and communications capabilities

3.7.3 Federal Emergency Management Agency Region IX

Region IX directs, oversees, and executes regional support for all logistics functions during all incident phases. Region IX responsibilities for this incident include:

- Establish, maintain, and execute supplemental regional plans, policies, and procedures that implement FEMA Headquarters plans, policies, and procedures
- Staff the JFO and Federal staging areas, and coordinate the agency logistics response among field units
- Develop and coordinate regional requirements and capabilities with the State and local responders, and link with the State to coordinate the logistics interface
- Provide accountability for FEMA property and equipment assigned to Region IX
- Execute agreements with other Federal agencies and NGOs, and procure support from local sources

3.7.4 Federal Emergency Management Agency Field Units

Field units (primarily JFOs and Federal staging areas) are responsible for FEMA field logistics execution during all incident phases. Field Unit responsibilities for this incident include:

- Execute field unit logistics plans, policies, and procedures.
- Execute field logistics funding, budget, and resource management
- Execute agreements with other Federal agencies and NGOs at the field level
- Execute field logistics contracts with the private sector
- Coordinate agency logistics response at the field units

3.7.5 Federal Emergency Support Function #7, Logistics Management and Resource Support

Federal Emergency Support Function #7, Logistics Management and Resource Support (ES-#7), assists DHS by:

- Providing a comprehensive national disaster logistics planning, management, and sustainment capability that harnesses the resources of Federal logistics partners, key public and private stakeholders, and NGOs to meet the needs of disaster survivors and responders.
- Supporting Federal agencies and State, tribal, and local governments that need resource support before, during, and/or after incidents requiring a coordinated Federal response

3.7.6 Federal Emergency Support Function #12, Energy

Federal Emergency Support Function #12, Energy (ESF #12) facilitates the restoration of damaged energy systems and components when activated by DHS for incidents requiring a coordinated Federal response. It accomplishes this by:

- Providing information concerning the energy restoration process, such as projected schedules, percent completion of restoration, and geographic information on the restoration

- Facilitating the restoration of energy systems through legal authorities and waivers.
- Providing technical expertise to the utilities, conducting field assessments, and assisting government and private-sector stakeholders in overcoming challenges in restoring the system.

3.7.7 U.S. Department of Transportation

The U.S. Department of Transportation (DOT) is the coordinating agency for Federal Emergency Support Function #1, Transportation (ESF #1). DOT works with local and State transportation departments and industry partners to assess the damage to the transportation infrastructure and analyze the impact of the incident on transportation operations, nationally and regionally; DOT also reports promptly as changes occur. DOT implements response and recovery functions performed under DOT statutory authorities, including the prioritization or allocation of civil transportation capacity; funds for repair to Federal Aid highways; hazardous materials containment response and movement; and damage assessment that includes safety- and security-related actions concerning movement restrictions, closures, quarantines, and evacuations.

3.7.8 General Services Administration

The General Services Administration (GSA) is the coordinating agency for Federal Emergency Support Function #7, Logistics Management and Resource Support (ESF #7). In this role, GSA supports the requirements for obtaining facilities, facility setup, space management, building services, general facility operations, and contracting for transportation services.

3.7.9 U.S. Department of Defense

The U.S. Department of Defense (DoD) has a broad range of capabilities that can be used to support post-earthquake transportation and logistics requirements. Although the availability of DoD resources is subject to higher-priority tasking, large numbers of vehicles, aircraft, ships, and other equipment may be requested through the Defense Coordinating Officer. Basic capabilities include:

- DoD facilities may be used as National Logistic Staging Areas and other logistics centers.
- DoD can provide heavy- and medium-lift rotary-wing aircraft, short-field fixed-wing aircraft, and specially configured medical evacuation aircraft as well as maintenance crews and logistical support for air operations. The U.S. Air Force also coordinates airspace control for military aircraft in coordination with the California National Guard under the Joint Task Force Airspace Control Plan.
- DoD can provide ships for transportation, movement of resources across the San Francisco Bay, movement of cargo to shore via cranes and ramps, bases for helicopter operations, support for other small-boat operations, berthing for first responders, pierside water and power generation, and medical care.

- DoD can provide trucks, materials-handling equipment, and construction equipment.

3.7.9.1 U.S. Army Corps of Engineers²

Commodity distribution. Following a natural disaster or emergency, the U.S. Army Corps of Engineers (USACE) can manage the procurement of critical commodities, such as packaged ice and bottled water, for FEMA as part of the Federal government's unified national response. USACE has 11 specially trained teams to address national needs for ice, water, and combined commodity planning; these response teams are ready to deploy throughout the country to carry out these missions during emergency response operations. Although the State and local governments, with support from FEMA, are responsible for the actual distribution of the commodities, USACE can provide assistance and guidance with the distribution, if requested.

Also, USACE can provide other technical assistance regarding the distribution of these critical commodities, including advance planning and preparedness exercises, assessment of emergency water and ice requirements, determination of the requirements and optimal locations for staging and distribution sites, coordination of transportation resources, and training for distribution site staffs.

Lifeline restoration. Following a natural disaster or emergency, USACE can provide State and local governments with a variety of support for emergency power needs at critical public facilities, assistance that is in support of FEMA as part of the Federal government's unified national response under the National Response Framework.

USACE has emergency power planning and response teams throughout the country with the capability to deploy and provide support ranging from technical expertise to turn-key installation of emergency generators at critical public facilities, such as hospitals and shelters.

The emergency power planning and response teams work closely with FEMA, the Department of Energy, local and State entities, and contractors to execute this mission.

USACE also manages structural safety assessments of commercial and residential structures as well as the assessments of infrastructure systems, such as water and waste water treatment, when requested.

3.7.9.2 Defense Logistics Agency

The Defense Logistics Agency (DLA) is a major supplier of consumable commodities supporting FEMA disaster response through stockpiled Distribution Center inventories and logistics field support requests following a catastrophic

² <http://www.usace.army.mil/Missions/EmergencyOperations/NationalResponseFramework.aspx>

earthquake. DLA resources can be requested through the FEMA LMD or through DLA representatives co-located with logistics staff at the JFO.

Basic response resources for this incident include:

- Meals (MREs and shelf-stable meals)
- Bottled water
- Tents
- Blankets
- Cots
- Comfort kits
- Fuel

3.7.10 Federal Aviation Administration

The DOT Federal Aviation Administration (FAA) oversees the operation and regulation of the U.S. National Airspace System, including the operation of the system during emergencies. Under certain conditions, the FAA may delegate use of specified airspace for national defense, homeland security, law enforcement, and response missions (such as search and rescue), but retains control of the airspace at all times. The FAA may also implement air traffic and airspace management measures such as temporary flight restrictions in conjunction with these missions. Following an earthquake, the FAA evaluates information provided by airports regarding conditions (such as damage to runways, communications, navigation, and air traffic control systems) and may restrict traffic at airports, depending on the conditions. The FAA may also waive certain regulations to allow for the ingress and egress of response resources.

3.7.11 U.S. Coast Guard

The jurisdiction of the 11th U.S. Coast Guard (USCG) District covers the State of California, including the ports in the San Francisco Bay Area and the California Delta. The 11th USCG District command with jurisdiction over the Bay Area is USCG Sector San Francisco, headquartered on Yerba Buena Island.

In the event of an emergency such as an earthquake, the USCG does the following:

- Maintains, monitors, and reports on the safety and navigability of Bay Area waterways.
- Makes and enforces decisions regarding the use of Bay Area waterways, including the opening or closing of waterways to vessel traffic.
- Activates, if required, a mutual assistance plan in which ferry operators in the region have agreed to respond to incidents that threaten the safety of passengers and crew aboard vessels in the San Francisco Bay and the California Delta.

3.7.12 U.S. Department of Health and Human Services

The U.S. Department of Health and Human Services (HHS) under the Assistant Secretary of Preparedness and Response is responsible for Medical Countermeasure Management (MCM). One component of MCM is the Strategic National Stockpile (SNS), a large inventory of medicine and medical supplies used to protect the public if an emergency is severe enough to deplete local medical supplies. The SNS is strategically located in caches throughout the country. Upon a request from Cal EMA, HHS deploys SNS assets to identified receiving points and transfers authority for the SNS assets to State and local authorities once they arrive at the designated State receiving site. For the scenario earthquake, it is likely that pharmaceuticals from the SNS are requested to care for the injured and the sick.

3.7.13 U.S. Department of Transportation, Maritime Administration

The DOT Maritime Administration (MARAD) currently has 13 ships in the Bay Area that may be requested and may be available for use in various roles in the event of a major catastrophe. These ships are currently located as follows:

- 10 berthed at Alameda Point
- 3 berthed at the Port of San Francisco

These ships have a number of features that could augment other commodity distribution operations in the region, including:

- **Potable fresh water.** Each ship can make a minimum of 17,000 gallons of fresh water per day, provided the seawater source is not contaminated. Each ship can store approximately 200 to 600 tons of fresh water, depending on the ship's specifications. The tanker vessel at Alameda Point can hold approximately 40,000 tons of fresh water, provided the tanks are properly prepared.
- **Subsistence rations.** Each ship can prepare and serve an average of 4,000 meals per day (two meals per day for 2,000 people) with shoreside supply and replenishment.
- **Electricity.** Each ship can produce 1,000 to 5,000 kilowatts of electricity (varies by vessel) above the needs of the ship, which could be supplied shoreside to support an emergency facility or tent camp.
- **Shelter.** Smaller ships have ventilated interior cargo areas that could provide shelter for up to 2,000 people. Larger ships could accommodate up to 6,000. Cots and bedding would be needed. Heating, toilet facilities, and sewage treatment capabilities would require equipment installations and modifications to the ship's piping, depending on the duration of use and other circumstances.
- **Refrigeration.** All of the ships have industrial walk-in refrigeration compartments for food stores, and most have refrigerated shipping container plug-in capability.
- **Fuel.** Each ship has sufficient fuel on board to steam for a minimum of 5 days at a service speed of 16 to 19 knots or to run electrical service generators for approximately 30 days while pierside at anchor.

4 Priorities and Objectives

This section outlines the priorities for logistics response support and the objectives that support each of those priorities.

4.1 Overview of Priorities and Objectives

In general, the response priorities with regard to logistics involve determining the needs of those affected by the disaster; efficiently informing the media and potential resource providers about those needs; and establishing a network of sites to receive, process, distribute, and track resources. The detailed, time-based priorities and objectives below support these larger goals.

Because this is a regional plan, the list of the priorities and objectives focuses on the 12-county planning region and is written from the point of view the Cal EMA Coastal Region. However, it contains information about the response and coordination activities occurring at the Operational Area and local government levels and is not limited to the specific duties of any particular agency or entity.

The objectives are described according to three time periods of the response. The periods are:

- E to E+72 hours
- E+72 hours to E+14 days
- E+14 days to E+60 days

The last of these periods includes objectives for transitioning to long-term recovery. It involves establishing mechanisms for ongoing maintenance of systems and processes to continue providing management of resources. Concepts for eventual cessation and shutdown of these management operations are beyond the scope of this plan.

The three time periods do not correspond to any particular phase of the emergency management cycle. Instead, this Plan recognizes that there is a gradual transition from the initial response to an event (which focuses on immediate emergency support for lives and property) and the longer-term recovery (which focuses on reestablishing the health and safety of the community).

The following subsections present the operational priorities and objectives by time-phase. In addition, **Appendix F** contains a comprehensive response timeline for logistics response operations. The timeline shows the individual tasks used to meet these objectives and the agencies responsible for performing them.

Note that the particular time periods for the priorities, objectives, and tasks specified here are for a catastrophic earthquake in which damage to the transportation and communication infrastructure is extensive. In the most heavily damaged places, it takes several days for initial damage assessments and communications systems to be completed. In smaller or more localized events—or in disasters other than

earthquakes—many of these activities could be completed sooner. Thus, to produce a more general plan than this one, the activities in this Plan could be scaled down.

4.2 E to E+72 Hours

The first 72 hours after an earthquake are closely associated with incident analysis, in which the affected areas, infrastructure status, and commodity needs are determined.

4.2.1 Operational Priorities

The operational priorities are:

- Develop situational awareness of the impacts of the earthquake with respect to the disruption of critical lifeline infrastructure and the scope of the requirements necessary to provide life-sustaining logistics support to affected populations
- Establish and operate an organization to coordinate ordering, receiving, and distributing disaster response commodities and supplies, including the anticipated influx of State and Federal resources into the region
- Establish a regional system to determine the priority for distribution of life-sustaining logistics support to affected populations based on life-safety concerns

4.2.2 Objectives

The response objectives are:

- Establish an ICS structure that coordinates logistics operations by integrating local, Operational Area, region, State, and Federal operations, as well as the private sector
- Establish interoperable emergency communications among public- and private-sector transportation and logistics entities involved in logistics operations
- Determine impacts to transportation infrastructure and the private-sector commodity distribution system (i.e., food, water, and fuel distributors)
- Identify the locations and sizes of affected populations, including people with access and functional needs
- Assess the feasibility of pre-identified local LSAs and PODs
- Identify sites for LSAs and PODs that are nearest the locations of the most affected populations
- Determine priority transportation routes for logistics activities to enable the initiation of debris clearance and infrastructure inspection and repair
- Identify priorities for the use of available resources to assist in movement of commodities into impacted areas
- Coordinate logistics assessments with initial damage assessments and other situational reports

- Coordinate with the Mass Care and Shelter Branch to maintain situational awareness of the current and ongoing need for shelters and pickup points
- Notify all agencies that support LSAs and PODs

4.3 E+72 Hours to E+14 Days

From 72 hours to 14 days after the earthquake, State and local governments establish staging areas and PODs.³ Coordination with government and non-government agencies is critical during this phase. The public should be notified about the locations of PODs and the availability of commodities.

4.3.1 Operational Priorities

The operational priorities are:

- Develop a plan of operations to support the movement of commodities into the affected area
- Establish LSAs for the receipt of Federal and other commodities from outside the region
- Establish PODs for the distribution of commodities to affected individuals
- Develop a public information plan to inform affected populations about the locations and operation of PODs throughout the region
- Develop a fuel plan to support movement of commodities and operation of LSAs and PODs
- Identify other, non-government distribution operations to prevent duplication of services
- Identify private-sector resources to support government distribution activities

4.3.2 Objectives

The response objectives are:

- Finalize the list of priority transportation routes being used, and coordinate with debris clearance and public works agencies to confirm the availability of routes
- Identify PODs and coordinate with local governments to support the operation of the sites
- Support the development of incident action plans at PODs to address operations and the eventual decrease in volume and demobilization
- Coordinate with the Transportation Branch to acquire and deploy appropriate resources to move commodities between LSAs and PODs in the region
- Mobilize staff and supplies for LSAs and PODs
- Open LSAs and PODs
- Coordinate with the Joint Information Center to disseminate timely information about POD operations to the general public

³ The State does not set up or operate PODs.

- Acquire and deploy additional transportation resources from local, State, Federal, and private-sector sources as the resources become available
- Acquire, maintain, and deploy logistics support resources such as fuel distribution systems, maintenance support, and law enforcement staff
- Monitor activities of PODs to ensure efficient distribution of commodities
- Establish a Multi-Agency Coordination System group for commodity distribution, if needed
- Provide information to the Construction/Engineering Branch about routes that must be opened to support logistics
- Establish communication systems between PODs, LSAs, and EOCs
- Coordinate with the Mass Care and Shelter Branch to identify and support people who choose not to use shelters but need commodities
- Gather data on commodity-use rates to anticipate potential shortages

4.4 E+14 Days to E+60 Days

During the period from 14 days to 60 days after the earthquake, logistics planning should focus on demobilizing operations, while continuing to serve residents who still need commodities. While the Plan timeline extends only through the first 60 days of the event, the Plan recognizes that logistics operations extend well beyond that point.

4.4.1 Operational Priorities

The operational priorities are:

- Maintain support of PODs
- Continue to support people who choose not to use shelters by providing information and commodities to the extent possible
- Initiate the demobilization of the earthquake response supply chain

4.4.2 Objectives

The response objectives are to:

- Continue to monitor distribution activities of PODs
- Continue to support LSAs and PODs with resources for sites and transportation of commodities
- Monitor and coordinate the capabilities of agencies, vendors, and other organizations to support the distribution of commodities
- Identify opportunities to close PODs and consolidate distribution activities in the most-impacted communities
- Coordinate with the private sector to identify conflicts between the restoration of retail businesses and POD activities
- Demobilize unnecessary PODs and LSAs

5 Coordination and Communication

The coordination and communication section of this Plan describes the overall approach to coordinating the establishment of a logistics framework to receive, stage, store, track, deploy, and distribute resources and commodities. **Section 5.1** describes the organization of the system activation and coordination, the information-sharing systems, and the manner in which the region requests, receives, and coordinates outside resources. **Section 5.2** conveys the plan for creating, integrating, and dispensing public information regarding the location of PODs and the commodities available.

5.1 Activation of the Logistics Support Framework

After the earthquake, local governments and State agencies begin to assess the damage to infrastructure and the impact to local communities to determine which areas of the region require assistance. Information flows up through SEMS channels to the State and Federal governments to aid in determining which resources are needed and the most effective means and routes of getting them to the places that need them the most.

Given the impact of the earthquake, the Federal Government immediately begins movement of Federal resources toward the affected area in anticipation of requests for assistance from the State. FEMA requests the use of military bases as National LSAs through the DoD. The FEMA National Response Coordination Center initiates deployment of personnel to establish and operate National LSAs, which remain FEMA-run facilities but have support and assistance from designated support agencies. Transportation assets are established at designated National LSAs to meet anticipated requirements for moving commodities and response teams. Mission assignments are issued as needed to the DoD and other agencies to provide transportation assets at the National LSAs.

The State works with local governments in a coordination role to support the establishment of LSAs in strategic locations. Local governments also establish PODs, warehouses, and other logistical support sites as necessary. The locations of these sites must be communicated and coordinated with those providing resources.

5.1.1 Field

In field operations, Incident Commanders request resources to accomplish their objectives. When those resources arrive, they must be integrated into the response. The activation and operation of LSAs, PODs, and warehouses occur at the field level. Incident Commanders also operate shelters, evacuation pickup points, incident command posts, and local mobilization centers that all require logistics resource support.

5.1.2 Local Governments

Local governments activate EOCs to coordinate and provide support to field operations. Local government activities include coordinating the activation and operation of the following sites that support logistics operations:

- LSAs
- PODs
- Warehouses

In addition, local governments are responsible for providing logistics support to the local operations of:

- Shelters
- Evacuation pickup points
- Incident command posts
- Emergency responder mobilization centers
- Mass feeding and water distribution

The EOC communicates directly with Incident Commanders of each of these operational sites to determine resource shortfalls and to continually evaluate the effectiveness of the response strategy and monitor the achievement of objectives.

5.1.3 Operational Areas

The Operational Area is the intermediate level of SEMS and is responsible for coordinating the sharing of information and the acquisition of resources in a county, including all political subdivisions in the county boundary (e.g., cities, special districts) and unincorporated areas in the county.

In response to a disaster, Operational Areas:

- Process requests from local governments for commodities and other resources, and forward those requests to the region when resources are unavailable in the Operational Area
- Communicate directly with the REOC or with the regional staff at the JFO if the REOC function is folded into the JFO
- Provide information and updates about the condition of the affected jurisdictions, including reports on the status of the disaster, damaged areas and infrastructure, affected populations, and other pertinent information to the Cal EMA Coastal Region
- Coordinate with local governments and the private sector to determine the most appropriate locations for activating LSAs and PODs to support distributing commodities and the staging and deployment of resources
- Coordinate with local governments in the Operational Area to determine the most effective means of distributing scarce resources and commodities to the affected communities

5.1.4 Cal EMA Coastal Region

As described in the RECP Base Plan, the Cal EMA Coastal Region coordinates resource requests from the affected Operational Areas with other Operational Areas in the region, State agencies, and the SOC. The Coastal Region:

- Works with the Operational Areas to identify requirements for commodities and resources to support commodity distribution operations
- Works with the Operational Areas to identify sites for LSAs and other facilities that are to be strategically located in the region to effectively deliver resources to the areas that are the most severely impacted
- Coordinates in-bound commodities with the Operational Areas to ensure that these commodities are supported appropriately
- Obtains the necessary personal, equipment, and sites to assist the Operational Areas with logistics by mission-tasking State agencies or by other means
- Deploys liaisons to the Operational Area EOCs, in collaboration with Federal Government representatives, to ensure that deployed commodities are supported logistically, arrive as requested, and are sufficient to meet requirements

Due to the catastrophic nature of the scenario earthquake, it is assumed that the regional function of SEMS is co-located with the SOC or JFO as they are activated.

5.1.4.1 Regional Coordination Group

The RECP defines the Regional Coordination Group as an entity that brings together representatives from the Operational Areas, local governments, the Coastal Region, the State, and subject matter experts to discuss aspects of the response. The Regional Coordination Group exists primarily to prioritize resource allocation among the Operational Areas in the region when resources are insufficient to address all requests. Due to the numerous resources that need prioritization, the Regional Coordination Group is likely to seek assistance from function-specific task forces.

5.1.4.2 Commodity Distribution Task Force

After a disaster, the distribution of commodities, including donations, to communities in need requires local jurisdictions, the State and Federal governments, NGOs, and businesses to work together. While FEMA supplies certain commodities, commodities also come from donations, NGOs, and other governments. The Commodity Distribution Task Force identifies commodity sources and coordinates their delivery to the locations where the commodities are distributed. This task force is a unified effort of representatives from local governments, the State, the Federal Government, NGOs (i.e., ARC and NorCal VOAD), and private businesses (i.e., CRA).

5.1.5 State of California

The State coordinates with the region and Federal agencies initially at the SOC and later at the JFO, once it is established. The State coordinates the acquisition and provision of resources that cannot be acquired in the region. The State may request resources from other regions in the State that are less affected or unaffected, from State agencies and from other states either through the Interstate Civil Defense and Disaster Compact, through the EMAC, or from the Federal Government. As part of its coordination function, the State:

- Projects commodities needs for the region
- Coordinates the pre-positioning of commodities for deployment to the region
- Identifies State staging areas and other support facilities, including property owned or managed by State agencies
- Coordinates the State provision of labor and materials-handling equipment at these locations
- Identifies State resources that can be used to transport commodities, such as assets provided by the California National Guard, including prioritization and use of air assets
- Receives commodities from the Federal Government and other providers—either at Federal staging areas or at State staging areas—and transports these commodities to locations for deployment, such as PODs

Cal EMA is responsible for ensuring that State and Federal response operations are coordinated and for coordinating the integration of Federal resources and commodities into the State response operation. Cal EMA initiates this process at the SOC and later coordinates with FEMA at the JFO, once that facility is established.

5.1.6 Federal Government

State and Federal agencies respond to the earthquake under their own authorities. Once the Unified Coordination Group is established, these activities must be coordinated with the joint State/Federal organization established as part of the JFO so that they can be accounted for in the incident action plan process. To the extent possible, sustained operations should be folded into the joint State/Federal response through the mission-tasking/mission-assignment processes.

5.1.6.1 Joint Field Office

JFO is a temporary Federal facility that provides a central location for the coordination of Federal, State, tribal, and local governments and private-sector and nongovernmental organizations with primary responsibility for response and recovery. The JFO structure is organized, staffed, and managed in a manner consistent with *NIMS* principles and is led by the Unified Coordination Group. Although the JFO uses an ICS structure, the JFO does not manage on-scene operations. Instead, the JFO focuses on providing support to on-scene efforts and conducting broader support operations that may extend beyond the incident site.

Personnel from Federal and State departments and agencies, other jurisdictional entities, the private sector, and NGOs may be requested to staff various levels of the JFO, depending on the requirements of the incident.

5.1.6.2 Unified Coordination Group

The JFO is led by the Unified Coordination Group, which is comprised of specified senior leaders representing State and Federal interests, and in certain circumstances tribal governments, local jurisdictions, the private sector, or NGOs. The Unified Coordination Group typically consists of the Principal Federal Official (if designated), Federal Coordinating Officer (FCO), State Coordinating Officer, and senior officials from other entities with primary statutory or jurisdictional responsibility and significant operational responsibility for an aspect of an incident (e.g., the Senior Health Official, Department of Defense representative, or Senior Federal Law Enforcement Official if assigned). Within the Unified Coordination Group, the FCO is the primary Federal official responsible for coordinating, integrating, and synchronizing Federal response activities.

The composition of the Unified Coordination Group will vary, depending upon the scope and nature of the incident and the assets deployed in support of the affected jurisdiction.

The JFO structure normally includes a Unified Coordination Staff. The Unified Coordination Group determines the extent of staffing based on the type and magnitude of the incident.

5.1.7 American Red Cross

The ARC's logistics supply chain is a self-contained operation that is separate from government logistics operations. However, when the ARC needs additional resources to fulfill its mission, it requests them from government entities or from individuals and businesses in the form of donations.

The ARC assigns liaison representatives to each level of government, from the Operational Area to the REOC (if activated), the SOC, and the JFO. If circumstances demand it, the ARC also assigns liaisons to local government EOCs. Traditionally, the ARC assigns liaisons with mass care expertise to operations branches of Operational Area EOCs and the REOC. Because the organization now recognizes that support of mass care activities is just as important as actual provision of shelter services, the ARC plans to put both a mass care and a logistics liaison in the activated Operational Area EOCs that are most severely impacted by the scenario earthquake. ARC liaisons in the JFO coordinate ARC activities with the State government response and FEMA's Federal Emergency Support Function #6, Mass Care, Emergency Assistance, Housing and Human Services (ESF #6). By providing liaisons at all levels of government, the ARC aims to prevent duplication of services and resource requests.

Despite the catastrophic and regional nature of the scenario, the ARC's operation is based on local response. As described in the Regional Catastrophic Earthquake Mass Care and Sheltering Plan, ARC personnel from local chapters open shelters as soon as possible. A regional Disaster Response Operations office is opened to support all Bay Area chapters. The Disaster Response Operations office communicates directly with ARC National Headquarters. Thus, the ARC has situational awareness of the event response from the field level to the Federal level.

In heavily damaged areas, the ARC may co-locate its distribution activities with locally managed PODs, which distribute the commodities and services of government and other non-profit organizations. However, the ARC attempts to stage its commodities independently in its own local staging areas in order to control inventory.

5.1.8 Other NGOs

NGOs are integrated into the coordination structure at the level of SEMS most consistent with the NGO's scope of services. For example, NGOs whose mission is to provide services to only one community or local government are integrated into the response through coordination with the local government EOC. In contrast, larger NGOs—those that serve communities across the country or communities outside the State of California—are integrated into the response through the coordination of the individual assistance branch of the joint State/Federal Operations Section.

5.2 Information and Communication

Rapid evaluation of the earthquake impact is essential, as a coordinated appraisal of the intensity and extent of the incident is critical to supporting decision making. The flow of information from local government and Operational Area EOCs to the region (REOC), the State (SOC), and to the Federal Government (JFO) requires a disciplined approach to facilitate effective development of a common operating picture and to compensate for the earthquake-driven degradation of the communications system.

5.2.1 Intelligence and Information Sharing

The collection, compilation, and sharing of data is another key component of effective logistics response operations. Specific, credible, and actionable information is required from staging areas, PODs, shelters, pickup points, and other logistics operations sites. See **Section 6.5.4** for details on information-sharing systems used in the region.

5.2.2 Public Information

Effective public messaging is a critical component of any effective emergency response. For the scenario earthquake, public assistance flows into the region in many forms, including but not limited to commodities such as food, water, fuel, and

various types of donated goods. To get these items successfully into the hands of those needing assistance, public messaging is critical. Local governments should be prepared to disseminate messages to the public. Message development and coordination are accomplished at Joint Information Centers (JICs). JICs may be established at different levels for different audiences depending on the nature of the event. Most likely, JICs are operated by Operational Areas and at the JFO. Key messages regarding logistics response operations should include the following:

- Locations of PODs
- Types of commodities and other supplies that the public can receive at a POD
- What to expect on arrival at a POD
- What, if anything, individuals need to bring with them to a POD
- Locations where goods can be donated
- Where to find additional information regarding PODs and donations

Media relations. The media may wish to visit POD sites. This must be coordinated with the jurisdiction's Public Information Officer (PIO). All questions from the media must be directed to that PIO. This ensures a common message across the jurisdiction and other PODs. Community relations staff and the POD manager are the primary points of contact for media inquiries.

Public relations. Community relations staff can also provide information to POD customers. This information is provided by the PIO of a jurisdiction. The information may be conveyed verbally or through handout flyers. The POD Manager should work closely with community relations staff to ensure that correct messages and languages are being provided.

FEMA and the State, through Cal EMA, also provide public messaging to broader audiences. The State protocol for coordinating public information centralizes State efforts in the Office of Public Information and Media Relations at Cal EMA Headquarters. The Office of Public Information provides support directly to Cal EMA's regional offices and to the REOC; it works with other State agencies to ensure proper coordination, exchanges, and dissemination of information. Templates for public information releases can be found in **Appendix E**.

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6 Concept of Operations

The general concept for logistics operations for the region integrates elements of all of the other regional catastrophic earthquake plans but primarily includes concepts from the CONPLAN, the Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan, the Regional Donations Management Plan, and the Regional Catastrophic Earthquake Mass Care and Sheltering Plan.

The concept of operations for this Plan provides the 12-county Bay Area region with a coordinated logistics response plan that addresses both the system of staging, storing, and distribution and the resources necessary to make the system operational. The concept of operations presents an overall framework for logistics; the roles and responsibilities of government departments, NGOs, and the private sector; an outline for operations; and strategies for requesting and procuring needed resources to increase the response, relief, and recovery capabilities of the region.

6.1 Activating the Logistics Support System

The movement and distribution of resources and commodities both in anticipation of requests from the State and local governments and in response to actual requests follows a hub-and-spoke concept in the region. The hubs are shown in **Appendix B, Map B-3**. Immediately upon the occurrence of the incident and the activation of the State's emergency management system, local governments, Operational Areas, and Cal EMA begin collecting information to gain situational awareness. Priority is placed on determining the resources required to save lives, protect public health and safety, and sustain the population. At the same time, FEMA and other Federal agencies activate Federal operations centers, both in the region and nationally; activate the national system for logistics; and begin deployment of resources and commodities as specified in the NRF Catastrophic Incident Supplement,⁴ in anticipation of requests from the State.

Shipment of resources and commodities begins within 12 hours of an incident. FEMA coordinates the movement of commodities with Cal EMA, initially at the SOC and then at the JFO, once that facility is established. Initially, FEMA moves commodities to Federal mobilization centers and to Federal staging areas set up in the vicinity of the affected area. Once the State requests these commodities, they are transferred to State control at the Federal staging areas or delivered to State and local LSAs and receiving/distribution points located in each hub. When requested and if possible, FEMA may deliver commodities directly to PODs. FEMA provides logistical support and handling of commodities until the commodities are transferred to the State or to the local government for distribution to the public, although FEMA may provide resources to support these operations at the State's

⁴ Upon recognition that a catastrophic incident condition (e.g., involving mass casualties and/or mass evacuation) exists, the Secretary of DHS immediately begins implementation of the NRF Catastrophic Incident Supplement.

request. Local governments are responsible for distribution of the commodities to the general public.

Operational control and execution of logistics functions are pushed down to the lowest effective level. FEMA leads the synchronization and integration of out-of-state resource support capabilities from Federal, State, local governments, NGOs, and private-sector responders. State requests for support are submitted to FEMA, which facilitates acquisition through all available sources. FEMA Logistics employs a push/pull strategy for resource response. Initially, critical response assets are pushed to Federal staging areas in order to establish a supply of response assets based on estimated requirements for the region. Once operational control is established in the field, the push concept transitions to a pull concept regarding identified and established operational LSAs. During the pull execution, in order to maintain effective resource management, the FEMA Regional Response Coordination Center, Unified Coordination Group, and JFO communicate resource requirements through the FEMA LMD based on actual commodity consumption rates.

6.1.1 National Distribution Centers

Upon request from the State, FEMA looks for resources in their national distribution centers. FEMA distribution centers are permanent Federal storage facilities that receive, store, and ship disaster commodities and equipment. These commodities are shipped to staging areas identified in coordination with the JFO.

6.1.2 National Logistics Staging Areas

National LSAs are temporary facilities in the vicinity of the affected area at which commodities, equipment, and personnel are received and pre-positioned for deployment upon State request. These commodities are supplied from logistics and mobilization centers or from vendors; they are under the control of the Operations section of the JFO. National LSAs are generally projected to hold 1 to 2 days of commodities. For the Bay Area earthquake, potential national LSAs are listed below and shown in **Appendix B, Map B-5**.

- Travis Air Force Base (Solano County)
- Beale Air Force Base (Yuba County)
- Lemoore Naval Air Station (Kings County)

6.2 Establishing Receiving, Staging, and Distribution Sites

Local governments in coordination with Operational Areas must establish mechanisms for receiving, managing, and distributing commodities. Depending on the specific impact of the scenario earthquake, commodities may be delivered to:

- LSAs and receiving centers, either at existing facilities or temporary facilities established in response to the earthquake, where they are staged for future use

- Shelters, medical treatment sites, and other locations
- PODs, where they can be distributed directly to the general public

Local governments manage the use of these sites for receipt and distribution of commodities, regardless of source, including those provided by the State and Federal governments, the private sector, or donated by the public. Sites are identified and activated based on the following considerations:

- Some local governments have pre-identified sites and have arrangements with site owners to use those locations for emergencies or disasters. After the scenario earthquake, these sites must be evaluated to confirm that they are still viable options.
- If sites have not been pre-identified, efforts must be made immediately following the earthquake to identify locations suitable for LSAs and PODs.

Use of State-owned or State-managed facilities, such as fairgrounds, must be coordinated with the region and the appropriate State agency to minimize potential conflicts for use and prioritization of these sites.

6.2.1 Local Logistics Staging Areas

Local LSAs are established as intermediate sites in the hub-and-spoke system of commodity distribution and resource allocation. While some commodity shipments are delivered directly to POD locations, other commodities are routed to LSAs where they can be temporarily staged or stored before being routed to the location where they are distributed or used. To support efforts to restore lifelines and critical infrastructure, LSAs may temporarily warehouse commodities, equipment, and supplies that are needed to support communities impacted by the earthquake and may temporarily house emergency responders.

The regional level coordinates the establishment of LSAs with Operational Areas for the receipt, staging, and distribution of commodities. These staging areas are used to receive large quantities of commodities, generally in truckload quantities. Shipments are broken down and allocated according to the needs of the distribution points served by the LSA.

An LSA may receive commodities from:

- Local government caches and vendors
- State agencies
- Federal mobilization centers and national LSAs
- NGOs and private businesses

If requested, the State level may assist the regional level by tasking other State agencies, such as the State's Departments of General Services and Parks and Recreation, with identifying appropriate State-owned sites for use as LSAs. The State level may also task other State agencies to provide support to local governments in managing and operating LSAs.

Potential sites for establishing an LSA should have the following characteristics:

- Near a major highway
- Fenced or an otherwise secure area
- Separate ingress/egress routes for shipments
- Ready access to multiple modes of transportation
- Area with paved or compressed rock, sufficient for parking vehicles containing commodities that are not unloaded (i.e., refrigerated trailers or staging vehicles that are used to transport resources)
- Covered area for inside warehousing of commodities
- Loading dock or portable ramp capability

6.2.2 Points of Distribution

PODs are locations where commodities such as water, ice, packaged food, medical supplies, repair supplies, and other necessities are distributed directly to individuals. In general, PODs must have sufficient space for unloading trucks, space for storage and distribution of at least one day's worth of commodities, and access and waiting space or parking for the public. Specific considerations for setting up PODs and the different types of PODs are provided in **Appendix H**. Publicly accessible PODs can be shared sites at which the goods from the ARC and other voluntary agencies and private-sector entities may be distributed. Those commodities arrive at PODs through logistics systems that are managed by the respective organizations.

The determination to activate, operate, and demobilize a POD is at the discretion of the local government. The determination of the location, number, and type of PODs is based on:

- Needs analysis
- Population density
- Current methods of commodity distribution
- Types and availability of commodities needed
- Site capabilities
- Access to the POD site

For the scenario earthquake, NGOs and businesses may set up PODs to distribute donated commodities. NGOs and businesses should coordinate the activation of these PODs with local government so that needs are met without duplicating efforts and so that the restoration of the normal retail supply chain can be restored.

6.3 Commodity Distribution

After a catastrophic earthquake in the region, many communities are without power, water, sanitation, food, and medical supplies for long periods of time. A description of the critical commodities and the process for requesting and distributing them are described in **Sections 6.3.1** and **6.3.2**.

6.3.1 Alternative Distribution Methods

Due to several factors, such as access to affected communities, serving those with access and functional needs, security issues, and the lack of appropriate sites to support a POD, local governments may choose to distribute commodities by alternate means.

- **Mobile delivery** requires the use of vehicles to drive into an affected area and provide commodities at different drop locations where the need is identified. This type of distribution is common in rural areas and where roads are damaged.
- **Direct delivery** is coordinating with a specific location, such as a shelter, feeding site, hospital, or long-term care facility for the delivery of specific items and quantities. These commodities could include food, water, ice, and comfort kits. Direct deliveries are usually larger in size and more specific in commodity type than what is delivered through mobile delivery.

Since event impacts and community needs differ from jurisdiction to jurisdiction, local governments should develop plans for distributing commodities that are specific to the anticipated needs of their communities. The local plans should address establishing PODs, but also consider alternative means of distribution like those mentioned above to address members of the community that may not be able to visit PODs. Localized commodity distribution planning is especially important in address populations with access and functional needs.

6.3.2 Types of Commodities

6.3.2.1 Water

After an earthquake, water is needed for fighting fires, facilitating a sanitary environment, and drinking, among other uses. After the scenario earthquake there is significant damage to the water delivery system and to the wastewater transport system. Due to these impacts, there is a critical need for bottled water and non-potable water for purposes other than drinking or cleaning food, but this should not preclude other potable water delivery such as the use of on-site water purification systems and members of the community bringing their own containers to acquire water.

Cal EMA developed the Multi-Agency Response Guidance for Emergency Drinking Water Procurement and Distribution to:

- Outline how to integrate the SEMS and NIMS protocols in responding to an emergency that affects the local water utility water distribution system during a large-scale or regional event that triggers local emergency proclamations or a Governor's state-of-emergency proclamation
- Assist local utilities and emergency response organizations to facilitate and develop local protocols for activating a Multi-Agency Coordination System group for emergency drinking water, as needed

- Provide a common understanding of the key roles and responsibilities and the emergency management response structure to be assumed by the local water utility and the other SEMS and NIMS response organizations relative to the procurement and distribution of emergency drinking water

Water and wastewater utilities have their own plans for business resumption and the distribution of drinking water after an event that disrupts normal service. Water and wastewater utilities have partnered under an organization called the California Water/Wastewater Response Network to support and promote State-wide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities. After an event, these utilities work through SEMS channels to provide assistance to water/wastewater utilities that need additional resources to recover from damage to infrastructure and damage to the communities impacted by a loss in service.

Additional information regarding the water lifeline and efforts to restore services can be found in **Appendix G, Tab 2**.

6.3.2.2 Food

Due to massive power outages and the fact that not all households store non-perishable foods, the distribution of MREs and heater meals and the provision of other methods of feeding are necessary. The procurement and distribution of food is handled through a partnership of government and non-government organizations and private businesses. Shipments of food commodities arrive at the LSAs and are distributed to each POD in the hub based on the projected population to be served. NGOs and private businesses may also set up PODs to distribute food acquired through their own channels, but these organizations are encouraged to coordinate their efforts with local governments so that the commodities reach the communities in need efficiently, thus limiting waste and/or duplication of effort.

6.3.2.3 Fuel

Based on assumptions in **Section 2.4.1**, fuel availability is scarce and must be prioritized. Fuel is used to support the movement of resources and to power generators, and as a heating/cooling source in homes and businesses. Fuel is also considered a lifeline in that it is a critical requirement for an effective emergency response. Additional information on restoring the fuel lifeline can be found in **Appendix G, Tab 1**.

6.3.2.4 Sanitation

Based on the assumption that water and wastewater delivery systems are severely degraded or entirely non-functional, resources to support proper sanitation are required. For locations where operations are being conducted, those receiving services and personnel providing services need:

- Portable toilets
- Toilet paper

- Wet wipes
- Portable showers
- Sanitary disposal

6.3.2.5 Medical supplies

Many people are injured and require medical care after the earthquake, which exhausts the resources that exist in the region. Additionally, people that require daily medications and other health services need continued access to prescription medicines and health care. Requests for medical supplies and pharmaceuticals are initiated through local health departments, and they manage their own logistics supply chain during the response. The coordination and management of medical supplies and pharmaceuticals is not addressed in this plan.

6.3.2.6 Generators

After the scenario earthquake it is estimated that over 2.9 million households are without power. The lack of power also impacts numerous businesses, government agencies, hospitals, transportation systems, and other critical service providers. Many critical service providers have prepared for power outages and have installed generators so that they may continue to provide services. These generators are entirely reliant on the supply of fuel on hand. Generators vary in size, in their capable support load, in the amount and type of fuel they require, and in the length of time for which they can provide alternative power.

6.3.2.7 Other commodities

Depending on community needs, other supplies are often requested and distributed, such as ice, blankets, tents, cots, and diapers. PODs distribute some of these items, and some may be distributed through the alternative means described above. However, most commodities of this type are distributed by NGOs to shelter residents. The BOC with assistance from CRA liaisons can assist in coordinating the acquisition of these commodities.

6.4 Resource Coordination

After a major earthquake, local governments are overwhelmed and lack the necessary resources to respond effectively. Resources flow into the region from several sources. Some resources are formally requested, while others come unrequested, such as donations and spontaneous unaffiliated volunteers.

6.4.1 Requesting Commodities

Local governments are responsible for identifying potential requirements for commodities. Assuming that on-hand commodities are insufficient, the local government may seek support from vendors, ARC, and other NGOs, and the Operational Area. If the Operational Area cannot obtain the required commodities, it may request support from the State through the

Region. In general:

- Commodities required to support the population, such as food and water, may be requested through the Care and Shelter Branch of the Operations Section at the Operational Area EOC
- Medical and public health commodities are requested through the Medical and Health Branch by the Medical/Health Operational Area Coordinator, as described in the RECP Medical and Health Subsidiary Plan.

6.4.2 Commodity Sources

To effectively match commodities with needs, local governments need to be aware of inbound commodities and where they are coming from. Commodities may come from the following sources:

6.4.2.1 Government-Provided Commodities

Commodities may be available from unaffected local governments in Northern California and others in Southern California, State agencies, other states, and the Federal Government. These commodities typically flow into the region in a more orderly fashion, as they are formally requested and can be tracked from the point of departure to their final destination. It is the responsibility of each level of SEMS to track and coordinate commodity shipments.

6.4.2.2 Donated Commodities

Although monetary contributions are preferred, many resources, including commodities, are donated by businesses, individuals, and NGOs. Integrating these resources into the distribution system is a joint effort between government agencies and the NGOs and businesses providing the goods and services.

Depending on the type of donation, the locations to which donated resources are routed may vary. Efforts are made to direct donated commodities to LSAs so they can be combined with the commodities provided by FEMA and other government sources. Many NGOs like the ARC receive donations directly and manage their receipt, staging, and distribution.

While donations are often helpful, some donations arrive that are not needed, causing logistical challenges. For these items, it is important for local governments to identify warehouses where they can be stored until a need arises or until they can be re-donated. Additional detail on the management of donations can be found in the Regional Donations Management Plan.

6.4.2.3 Procurement and Contracting

In general, local governments have established procurement and contracting guidelines; however, some local governments may not have established guidelines for procurement and contracting during a proclaimed emergency. Each agency is responsible for establishing effective administrative funding controls, segregation of

duties for proper internal controls, and accountability to ensure that costs incurred are consistent with the missions identified.

A service contract and memorandum of understanding (MOU) should be maintained that contains details of pricing and delivery timeframes for each item supplied by a contractor. The status of a contract or MOU should be verified at least annually. Contact lists that include electronic mail addresses, phone numbers, fax numbers, and cellular numbers of representatives should be regularly maintained.

MOUs should also specify delivery methods. An agreement on shipping terms and delivery time frames should be included in each MOU.

6.5 Resource Movement and Distribution

The region may coordinate the acquisition of resources through several channels, including the following:

- Identification of a governmental resource in the region
- Identification of a non-governmental resource that can work directly with the Operational Area
- Coordination with the SOC/JFO, which can find government resources in the State from other regions, mission-task State agencies to provide additional resources, or request Federal support

The following are examples of resource requests to support logistics response operations:

- Identification of facilities for multi-agency warehouses
- Identification of sites for LSAs, bases, camps, and PODs
- Coordination with regional organizations to address staffing of sites
- Technical assistance to support local logistics response operations
- Assistance with transportation of resources

State and Federal resources flow through the Cal EMA regional structure to support Operational Areas and local governments. Following the principles of SEMS, all disasters are local and are coordinated by local government. State and Federal resources may be requested by Operational Areas using the standard resource request processes in their Emergency Operations Plans and the State of California Emergency Plan.

6.5.1 Axes of Movement

The overarching strategy to complete the mission is to execute an integrated approach that increases response capabilities while gaining access along multiple axes of movement into the most severely affected areas. The axes of movement include the use of available land routes, air transport, and maritime transport to support the affected population by restoring critical services. As access is gained, resources are moved into the affected area according to the following priorities:

- Response teams to support lifesaving actions including firefighting, search and rescue, and medical treatment
- Response teams for public safety
- Teams and equipment required for clearing priority routes
- Supplies for sheltering and commodity distribution
- Teams to assess damage to structures

The joint effort by local, State, and Federal agencies emphasizes the reestablishment of the transportation system to facilitate the effective movement of resources into the most severely affected areas (from national LSAs and other sources) and to move the injured, evacuees, and others out of the affected areas.

Lines of supply and transportation include:

- Priority land routes, as shown in the Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan, depending on damage to or closure of key bridges and freeways
- Air routes, using rotary-wing aircraft in the Bay Area and established heliports, local airports, regional airports, and temporary sites for landings
- Water routes, using in-region ferry assets, MARAD vessels, and out-of-region vessels from the DoD and other sources, particularly between San Francisco and inland ports (depending on the damage to port facilities)

The axes of movement provide a framework for the commodity distribution flow, as described in **Section 6.5.2**.

6.5.2 Commodity Distribution Flow

The commodity distribution flow represents the flow of commodities from their point of origin to the location where they are distributed to those who would use them. Sources of commodities are described in **Section 6.4**. These sources organize commodities at locations outside the region through stockpiling and warehousing, procurement from vendors, and soliciting donations. FEMA initiates the flow of commodities from national distribution centers. FEMA commodities flow from these centers to national LSAs to local LSAs and PODs established in the region. FEMA may choose to deliver commodities directly to PODs when:

- The incident impacts are confined to a limited number of jurisdictions
- PODs are setup and ready to receive and distribute commodities
- PODs are accessible

Commodities from other sources flow from many different origination points. The general flow of commodities is shown in **Figure 6.1**.

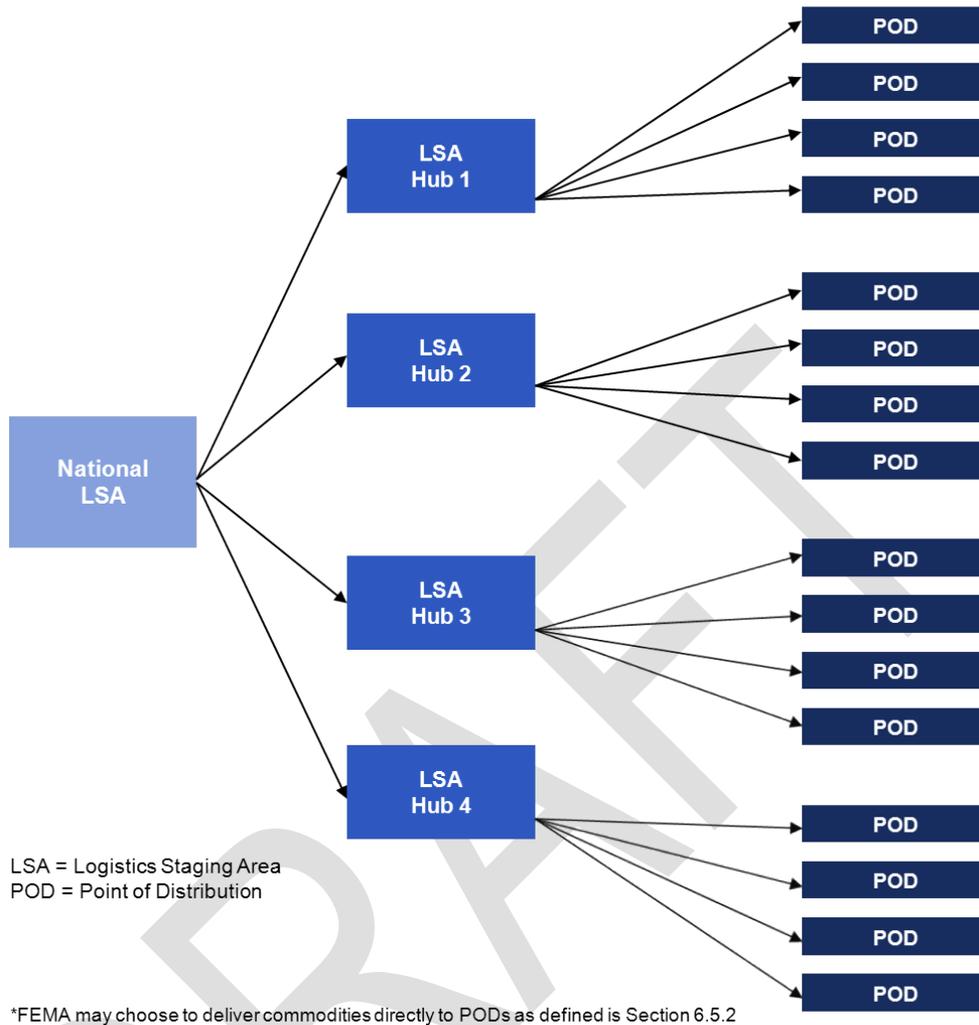


Figure 6.1. Resource flow.

6.5.3 Transportation of Commodities

Transportation assets will be established at designated National LSAs to meet anticipated requirements for moving commodities and response teams. Mission assignments will be issued as needed to the DoD and other agencies to provide transportation assets at National LSAs. These assets will transport commodities to LSAs and PODs through the joint coordination of the State and FEMA at the JFO.

Local governments are responsible for transporting commodities from LSAs to PODs. If local governments lack the necessary transportation assets to transport the commodities, they are encouraged to request support from the State.

6.5.4 Resource Tracking

Local governments and the State use an array of technologies to manage their resources. Some use off-the-shelf software packages, while others have developed custom systems ranging from basic spreadsheets in Excel or Access to tools with greater functionality. In some cases resources are tracked centrally; in others, each department with resources (fire, police, public works, parks, and others) is responsible for tracking its own resources. The following tools have been adopted in the region to manage resources.

6.5.4.1 Response Information Management System/WebEOC

In California the system currently used to share information and track resources is the Response Information Management System (RIMS). In 2013, the State transitions from RIMS to WebEOC. The purpose of the State's transition to WebEOC is to create a State-wide system that is transparent regarding the status of resources and to increase efficiency during an event through real-time reporting of information.

6.5.4.2 National Donations Management Network

The National Donations Management Network (NDMN) is a national online tool that is used to match needs with donated in-kind resources. This web-based network directly connects donors, who register themselves and their donations before or after the event, with recipient organizations. The NDMN helps increase the flow rate and availability of donations, reduces the time it takes to get donations to survivors, and may reduce the need for costly warehousing of donated goods.

The California portal for NDMN is administered by Cal EMA Individual Assistance. In California, the system addresses in-kind donations, transportation, and warehousing. In-kind goods can be requested at any time, and the State NDMN Administrator can publish the items needed for potential donors to match.

6.5.4.3 California Resiliency Alliance Disaster Asset Registry

The California Resiliency Alliance Disaster Asset Registry (CRADAR) is a tool for private-sector donation registration and planning. CRADAR sits on the same platform as the NDMN, although the two applications do not currently interface. CRADAR contains pre-registered business resources, whereas NDMN has resource needs and requests posted in real time during an event.

6.6 Lifeline Restoration

A successful recovery is largely contingent on how quickly the private sector and local governments can help restore critical lifelines. The restoration of critical lifelines is an important part of maintaining community populations. Without these basic services, people tend to move permanently out of the area. After a major earthquake, restoring the following lifelines is a priority:

- Fuel

- Electrical power
- Transportation
- Water/wastewater

With the exception of the transportation infrastructure lifeline, which is described in the Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan, additional information on these lifelines, the agencies responsible for maintaining and/or restoring them, and a general strategy for how to restore and recover them can be found in **Appendix G**.

6.6.1 Lifeline Interdependencies

When considering prioritization of resources to support the restoration of critical lifelines, it is important to be aware of their interdependencies. For example, electrical power is used to run water and wastewater systems and to pump fuel out of the ground. Additionally fuel is necessary to move response vehicles, power generators, and heat homes. Transportation infrastructure is necessary to move people and commodities. The interdependencies of these lifelines create a unique prioritization challenge when allocating resources.

6.7 Transition to Long-Term Recovery

As response efforts wind down, the transition to long-term recovery begins. Making the transition to recovery activities has implications for all resources committed to the response. In this plan, long-term recovery extends beyond 60 days and can last years after an earthquake of this severity. Tasks or roles that the region, SOC, or JFO may be called on to perform to support an extended response to unmet needs and long-term recovery efforts include the following:

- Demobilization and reconstitution of resources
- Tracking of resources
- Inventories of supplies
- Demobilization of LSAs, warehouses, and PODs
- Documentation
- Issuing press releases regarding response and recovery activities

Planning for long-term recovery should be initiated as early as possible in the response to promote an effective transition.

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7 Plan Maintenance

The process for maintaining the Plan is described in this section. The discussion identifies who receives and reviews the Plan, how updates are to be integrated into the Plan, how the Plan is tested, what type of training and exercises are developed to enhance understanding and execution of the Plan, and how after-action review is conducted after the Plan has been implemented as part of an exercise or in response to a real emergency.

7.1 Plan Distribution

Once completed and approved, the Regional Catastrophic Earthquake Logistics Response Plan is distributed to the Logistics Steering Committee and the UASI Management Team. The Plan is also distributed to each of the 12 counties and core cities in the RCPGP planning area and to the Cal EMA Coastal Region.

7.2 Plan Updates

Cal EMA Coastal Region is responsible for the maintenance, revision, and distribution of the Plan. In coordination with key stakeholders and agencies with critical roles and responsibilities for logistics during disasters, the Cal EMA Coastal Region annually assesses the need for revisions to the Plan based on the following considerations:

- Changes to State or Federal regulations, requirements, or organization
- Lessons learned through exercises or actual events
- Implementation of new tools or procedures that alter or improve on Plan components

Cal EMA Coastal Region maintains a record of amendments and revisions as well as executable versions of all documents and is responsible for distributing the Plan to all applicable agencies.

7.3 Plan Testing, Training, and Exercises

Exercising the Plan and evaluating its effectiveness involves using training, exercises, and evaluation of actual disasters to determine whether goals, objectives, decision, actions, and the timing outlined in the Plan led to a successful response.

Exercises are the best method of evaluating the effectiveness of the Plan and are also a valuable tool in training emergency responders and government officials. Exercises allow emergency responders and government officials to become familiar with the procedures, facilities, and systems that they will actually use or manage in emergency situations. Cal EMA is responsible for planning and conducting emergency exercises for the region.

Exercises are conducted on a regular basis to maintain readiness. Exercises should include as many Operational Areas, other regions, and State and Federal agencies as is practical.

7.4 After-Action Review and Corrective Action

After every exercise or disaster, an After-Action Report (AAR)/Improvement Plan (IP) should be completed. The AAR/IP has two components: an AAR, which captures observations and recommendations based on incident objectives associated with the capabilities and tasks; and an IP, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion. Cal EMA is the lead agency for the development of the AAR/IP and convenes participants to discuss action items and solicit recommendations for improvement.

SEMS requires that local agencies declaring local emergencies for which the Governor proclaims a State of Emergency complete and transmit an AAR to Cal EMA within 90 days of the close of the incident period, which is determined by Cal EMA. SEMS further requires that Cal EMA, in cooperation with involved local and State agencies, complete an AAR within 120 days after each declared disaster.

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Appendix A: Glossary

Acronyms and Abbreviations

AAR.....	After-Action Report
AAR/IP	After-Action Report/Improvement Plan
ARC	American Red Cross
BOC	Business Operations Center
Cal EMA.....	California Emergency Management Agency
Caltrans.....	California Department of Transportation
CAL FIRE.....	California Department of Forestry and Fire Protection
CDA	California Disaster Assistance Act
CHP	California Highway Patrol
CONPLAN.....	San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan
CRA	California Resiliency Alliance
CRADAR.....	California Resiliency Alliance Disaster Asset Registry
CSMR	California State Military Reserve
DHS	Department of Homeland Security
DLA	Defense Logistics Agency
DGS	California Department of General Services
DOT	U.S. Department of Transportation
DoD.....	U.S. Department of Defense
E.....	event occurrence
EF-7	California Emergency Function 7 – Resources
EMAC.....	Emergency Management Assistance Compact
EOC	Emergency Operations Center
ESF #1	Federal Emergency Support Function #1, Transportation
ESF #6.....	Federal Emergency Support Function #6, Mass Care, Emergency Assistance, Housing and Human Services
ESF #7	Federal Emergency Support Function #7, Logistics Management and Resource Support
ESF #12	Federal Emergency Support Function #12, Energy
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
GC.....	Government Code
GSA	General Services Administration

HAZUS.....	Hazards U.S., a FEMA risk-assessment software program for analyzing potential losses from floods, hurricane winds, and earthquakes
HHS	U.S. Department of Health and Human Services
ICS.....	Incident Command System
IP	Improvement Plan
JFO	Joint Field Office
JIC	Joint Information Center
LMD	Logistics Management Directorate
LSA.....	logistics staging area
M	moment magnitude
MARAD.....	Maritime Administration
MCM	Medical Countermeasure Management
MOU	memorandum of understanding
MRE	meal, ready to eat
MTC	Metropolitan Transportation Commission
NDMN.....	National Donations Management Network
NGO.....	non-governmental organization
NIMS.....	National Incident Management System
NorCal VOAD	Northern California Voluntary Organizations Active in Disaster
NRF	National Response Framework
PIO.....	Public Information Officer
Plan.....	Regional Catastrophic Earthquake Logistics Response Plan
POD	point of distribution
RCPGP	Regional Catastrophic Preparedness Grant Program
RECP	Regional Emergency Coordination Plan
REOC	Regional Emergency Operations Center
RIMS.....	Response Information Management System
SEMS.....	Standardized Emergency Management System
SNS	Strategic National Stockpile
SOC	State Operations Center
The Stafford Act..	Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, 42 United States Code §§ 5121–5206, 2008
TMC	Transportation Management Center
UASI	Urban Areas Security Initiative
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard

- UOC..... Utilities Operations Center
- VOAD..... Voluntary Organizations Active in Disaster
- Web/EOC..... State-wide online emergency management system that RIMS will transition to in 2013

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Appendix B: Maps

(provided as a separate document)

Appendix C: Scenario and Assumptions Details and HAZUS Description

(previously provided for review)

Appendix D: Logistics Capability Assessment

(previously provided for review)

Appendix E: Sample Press Releases and Public Information Announcements

(provided as a separate document)

Appendix F: Response Timeline

(provided as a separate document)

Appendix G: Critical Lifelines

Tab 1: Fuel Supply Restoration

Tab 2: Electrical Power Restoration

Tab 3: Water/Wastewater Restoration

(provided as a separate document)

Appendix H: Guide to Points of Distribution

(provided as a separate document)

Appendix I: Critical Information Collection Requirements

(provided as a separate document)

Annexes A–N: Operational Area and Core City Annexes

Annex A: Alameda County

Annex B: Contra Costa County

Annex C: Marin County

Annex D: Monterey County

Annex E: Napa County

Annex F: San Benito County

Annex G: San Mateo County

Annex H: Santa Clara County

Annex I: Santa Cruz County

Annex J: Solano County

Annex K: Sonoma County

Annex L: City of Oakland

Annex M: City of San Jose

Annex N: City/County of San Francisco

(to be provided as a separate documents)

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