



Regional Catastrophic Earthquake Logistics Response Plan

GAPS AND RECOMMENDATIONS REPORT

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Bay Area Urban Area Security Initiative
Regional Catastrophic Preparedness Grant Program

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INTRODUCTION

OVERVIEW

Beginning in the summer of 2009, the Urban Area Security Initiative (UASI), contracted URS to support efforts to develop catastrophic preparedness plans for 12 counties and two cities in the Bay Area region through the Regional Catastrophic Preparedness Grant Program (RCPGP). For the fiscal year 2007/2008 grant, the UASI Program employed RCPGP funding to prepare plans in six functional areas: Debris Removal, Interim Housing, Mass Care and Sheltering, Mass Fatality, Mass Transportation/Evacuation, and Volunteer Management and for fiscal year 2009/2010 a Donations Management Plan was developed. The current project funded for fiscal year 2011, is the Regional Catastrophic Earthquake Logistics Response Plan (Plan).

This document, the Regional Catastrophic Earthquake Logistics Response Plan Gaps and Recommendations Report (Report), has been prepared as an accompanying deliverable to the Plan.

PURPOSE

The purpose of the Gaps and Recommendations Report is to:

- Provide the UASI with a list of gaps for the Plan where issues and concerns remain not fully addressed, policy does not exist, or agreement between stakeholders could not be reached.
- Provide a list of recommendations for future planning efforts that will benefit the region's preparedness, enhance the Plan's effectiveness, and/or mitigate the catastrophic impacts of an event.

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GENERAL GAPS AND RECOMMENDATIONS

The following list of gaps and/or recommendations relates specifically to the Plan and/or its appendices.

GAP 1

In the Plan as well as the other plans developed under the RCPGP, the concept of the Unified Coordination Group and the Joint Field Office (JFO) and their coordinating relationships with local governments using the California Standardized Emergency Management System (SEMS) lacks clarity or specific policy guidance.

ANALYSIS

The National Response Framework (NRF) defines the Joint Field Office and the Unified Coordination Group. The San Francisco Bay Area Earthquake Readiness Response Concept of Operations Plan (CONPLAN) uses that definition and applies it to coordinating the response to a catastrophic earthquake in the Bay Area. The JFO definition in the NRF describes an organization as the “Federal field structure,” where it serves to “provide support for on-scene operations.” This is not necessarily consistent with SEMS where Federal support exists at a level furthest removed from the field level. When the Operational Area and the California Office of Emergency Services (Cal OES) Administrative Regions are added to the system, as SEMS requires, the organizational picture gets muddled particularly for a catastrophic event. Additionally, although SEMS is National Incident Management System compliant, it only exists in California and differs from the rest of the nation. The Federal Emergency Management Agency (FEMA) may have difficulty adjusting their usual practices to conform to SEMS. This may lead to coordination issues and inefficiencies.

RECOMMENDATION

Cal OES, FEMA Region IX, Operational Area representatives and other appropriate stakeholders should convene a working group to identify how the doctrine defined in the NRF will be meshed with the State doctrine defined in SEMS. Consider the following:

- What role will the Cal OES Administrative Regions and/or the Regional Emergency Operations Centers play when a JFO is activated?
- What role will the Unified Coordination Group play?
- Identify specific coordination links for the JFO and the Unified Coordination Group?

GAP 2

While the Plan offers guidance for commodity distribution using a hub and spoke system, the Plan does not completely identify the locations of all local Logistics Staging Areas (LSAs) and the agencies responsible for supporting their operation.

ANALYSIS

While there are different ways to design a commodity distribution flow from Federal Staging Areas to Commodity Points of Distribution (PODs), the Plan currently describes a hub and spoke system where commodities flow from Federal Staging Areas, regional hubs, to LSAs within the Operational Areas. From the LSAs, commodities move through spokes to individual PODs or other distribution points. While potential LSAs are identified in the FEMA/Cal OES CONPLAN, not all counties in the Regional Plan have clearly identified LSAs, which will serve as commodity distribution hubs. Additionally, work remains on analyzing and determining the best structure for the LSAs. Key issues associated with activating and operating LSAs are:

- Determining staff and resource requirements for counties to support LSAs within its boundaries
- Prioritizing commodity distribution from LSAs to multiple county PODs
- Determining the location of the LSA based on site availability, proximity to communities in need, and the status of transportation infrastructure between the LSA and POD sites

Given the requirement for resources to support commodity distribution operations many Operational Areas will likely lack the capability to establish and operate LSAs. When the resources are not available, an appropriate site is not available, and/or the capability does not exist, Operational Areas may opt to jointly establish LSAs.

RECOMMENDATION

Following the FEMA hub and spoke concept of operations, the Plan should identify LSA locations for each Operational Area and describe the transportation system routes needed to supply them. Operational Areas should build the capability to establish and operate LSAs.

GAP 3

While the Plan briefly addresses critical lifelines and efforts to restore them post-disaster, actionable and comprehensive restoration plans for all critical lifelines either do not exist or have not been exercised.

ANALYSIS

The Plan provides a basic framework for addressing restoration of the following critical lifelines:

- Fuel
- Electrical power
- Water and wastewater.

Additional critical lifelines include: transportation infrastructure (public transit, ports and waterways, roads and bridges, railroads and airports), food distribution, communications, and banking. Each lifeline is critically important to an effective response and recovery.

Additionally, each lifeline is dependent on one or more other lifelines so prioritizing their

restoration is often complex and requires effective planning. Considerable planning has occurred to address the restoration of transportation systems and infrastructure, electrical power and water and wastewater systems, but planning for the increased demand and the likely shortage of fuel following a catastrophic earthquake continues to be a challenge.

RECOMMENDATION

Comprehensive planning efforts should be undertaken among service providers and governments to develop a realistic and operational restoration plan for each of the most critical lifelines – fuel, electrical power, and water and wastewater systems.

GAP 4

While the Plan provides a basic framework for restoring the fuel critical lifeline, primarily petroleum fuels, additional planning is necessary to identify potential fuel sources from outside the region, establish an alternative fuel distribution system and receive alternative fuel sources, provide support the restoration of Bay Area refining capacity, and return fuel demand to normal market conditions.

ANALYSIS

While additional planning is required for each critical lifeline, addressing the impacts of fuel availability post-disaster is understood by emergency planners to be the most significant gap. Movement of commodities into and throughout the Bay Area depends on the availability of fuel for vehicles, equipment, and generators, which will be used until electricity is restored in impacted areas. Availability of fuel and capability of the systems to distribute it will be severely restricted by the impact of the scenario earthquake. As has been observed from other recent disasters, mainly hurricanes, fuel demand increases post-disaster and the availability of fuel is significantly restricted by the loss of electrical power to pump fuel, the reduction in oil refining capacity, and lack of access to impacted areas due to transportation infrastructure damage. The resulting shortage of fuel significantly limits the capability of response teams from accomplishing their objectives. Responders need fuel to move resources to impacted areas, utility companies need fuel to power pumps and generators, and transportation agencies need fuel to move people away from harm to shelter.

Adding to the complexity, a unique reality in the Bay Area is that it is home to several oil refineries that will experience varying degrees of damage. Significant damage will impact the capability to refine and distribute fuel, not only to the Bay Area, but other areas of the country, where fuel would normally be available.

RECOMMENDATION

Develop a comprehensive and actionable plan for the Bay Area to support the acquisition of fuel for responders, other lifeline service providers and the general public and for repairing and restoring fuel refining capacity and distribution systems.

GAP 5

The Plan provides a concept of operations from requesting, receiving, and distributing commodities to the majority of the impacted population, but it does not currently address the “last mile,” the distribution of commodities to populations that cannot drive or walk to a POD.

ANALYSIS

Certain populations in the impacted communities have access and functional needs making it difficult to impossible to drive or walk to a POD to receive commodities. Alternative methods to distribute commodities to these populations are required. In order to successfully distribute commodities to these populations will require the integration of various social service agencies and volunteer organizations. While some alternative methods are identified in the Plan, such as door-to-door delivery or “direct delivery” and “mobile delivery,” plans and procedures for each are necessary for effective implementation.

RECOMMENDATION

Develop field operations guides for alternative methods of commodity distribution for populations that cannot drive or walk to a POD.

GAP 6

The Plan introduces the concept of the Commodity Distribution Task Force. Currently no planning has been done to define the people or organizations that participate on the task force nor the roles and responsibilities of the task force.

ANALYSIS

After a disaster requiring the distribution of commodities to communities, local governments, the State, the Federal Government, nongovernmental organizations (NGOs), and businesses will work together to provide commodities to communities in need. While FEMA will supply certain commodities, commodities also come from donations, NGOs, and other governments. Due to the significant amount of commodities requested and arriving in the region from numerous sources an organization is needed with the primary focus of managing the acquisition and delivery of them. Establishing a Commodity Distribution Task Force is an effective way to identify commodity sources and coordinate their delivery to the locations where the commodities will be distributed.

RECOMMENDATION

The concept of the Commodity Distribution Task Force should be evaluated through training and exercises. Additionally, an agency should be identified to lead the task force and roles and responsibilities should be clearly defined.

GAP 7

The Plan lacks an Information Collection Plan. Some of the other Regional Catastrophic Earthquake Plans contain an Information Collection Plan appendix.

ANALYSIS

An Information Collection Plan identifies critical types of information needed to gain situational awareness. The Information Collection Plan for logistics would focus specifically on identifying information to support the distribution of commodities. For each piece of information, the Information Collection Plan will list the entity responsible for collecting the information, the method by which the information will be provided, and the entities the information will be provided to. Types of information that support commodity distribution include but are not limited to the following: status of roads, ports, and airports, status of public transit systems, number of people without power, food, and/or water, number of people in shelters, location of isolated communities, and the status of critical lifelines.

RECOMMENDATION

Develop an Information Collection Plan to support the implementation of the Regional Catastrophic Earthquake Logistics Response Plan. .

GAP 8

Local governments have done little planning for managing logistics and distributing commodities post-disaster.

ANALYSIS

Local governments in the Bay Area have varying degrees of capabilities when it comes to managing and coordinating the distribution of commodities after a catastrophic earthquake. While most local governments have emergency operations centers that have within them logistics sections, only a few have developed effective plans to manage and coordinate the request, receipt, staging, storing and, distribution of commodities. Additionally, actionable plans for staffing and operating LSAs and PODs do not currently exist in the Bay Area. The Plan provides a POD Operations Guide, but it is not a jurisdiction specific plan.

RECOMMENDATION

Local governments should develop plans for setting up, staffing, and operating LSAs and PODs.

GAP 9

The role of California Emergency Function 7 (CA-EF 7) – Resources in coordinating the distribution of commodities is not well defined.

ANALYSIS

Cal OES initiated the development of the CA-EFs in cooperation with California’s emergency management community including federal, state, tribal, and local governments, public/private partners and other stakeholders to ensure effective collaboration during all phases of emergency management. As part of this effort an annex was developed for each CA-EF. At this time the CA-EF annexes are in various stages of development. Generally, it is expected that CA-EFs will coordinate with their Federal counterparts – in this case Emergency Support Function 7, Logistics Management and Resource Support. But it is unclear what role CA-EF 7 will play in establishing the commodity distribution system if any considering the significant Federal role.

RECOMMENDATION

Representatives from CA-EF 7 and Federal ESF 7 should establish a working group to determine how they will work together to accomplish their missions.

GAP 10

During the development of Appendix G, Critical Lifelines, Tab 1, Fuel, representatives from the San Francisco Bay Area refineries did not participate.

ANALYSIS

Since it is assumed in the plan, varying levels of damage to the Bay Area refineries - from moderate to severe, having participation from representatives for each of the refineries would have helped develop additional and more accurate assumptions related to potential fuel supply distribution impacts. Additional information could be gathered to determine their capabilities in varying degraded states, the length of time it would take to get the refineries fully operational, supply impacts to the Bay Area and to the rest of the country, and any hazards that may further impacts to Bay Area communities.

RECOMMENDATION

In future planning efforts, participation of representatives from the Bay Area refineries should be encouraged.

GAP 11

The State of California currently lacks legislation mandating certain mitigation measures that would ease the constraints degraded critical lifelines place on response operations.

ANALYSIS

In many other states, legislation has been passed to mandate or incentivize the installation of generators at gas stations. Having generators at gas stations to power the fuel pumps when electrical power is unavailable will enable first responders and other customers, to access fuel

supply. Without these generators it is extremely difficult to get the fuel from the underground tanks into vehicles. Other types of legislation that would allow for waivers to certain regulations will also make it easier to acquire and receive alternate fuel supply from other states.

RECOMMENDATION

The State of California should craft and pass legislation to support temporary solutions that would mitigate the impacts of the loss of critical lifelines.

GAP 12

In the Bay Area, no planning forum exists to develop and/or facilitate productive working relationships between critical lifeline providers.

ANALYSIS

During the development of the Critical Lifelines Appendix, several critical lifelines providers participated in planning meetings and workshops. Their participation was critical in the development of assumptions and concepts defined in the Appendix. Continuing engagement with critical lifeline providers will benefit the execution of the Plan. There are many interdependencies between lifelines and providers should together to understand restoration priorities and expectations.

RECOMMENDATION

Critical lifeline providers should meet and exercise together periodically to discuss and evaluate critical lifeline restoration plans.

GAP 13

The concept of a Logistics Center is new for the San Francisco Bay Area region and California, so it has not been consistently adopted or integrated into local government, Operational Area, and regional plans.

ANALYSIS

Through sharing of best practices, multiple logistics planning companion documents originally developed under the RCPGP by the New York-New Jersey-Connecticut-Pennsylvania Regional Catastrophic Planning Team's Regional Logistics Program have been tailored for use for the Bay Area. This includes tailoring the Logistics Center Plan. The Plan was modified to be consistent with SEMS for use by local governments, Operational Areas, and the Region depending on the coordination requirements of an incident. The initial Logistics Center Plan Template contains useful guidance for setting up and operating a Logistics Center. Because the Plan was originally developed in the northeast, spanning multiple states, some concepts were difficult to adapt for California. Some of the issues that need further analysis are:

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- Determining which level of SEMS is most appropriate for establishing a Logistics Center for a catastrophic event –does it function as a multiagency coordination group? Does it serve singular or multiple jurisdictions?
 - Some language in the Plan Template describes the Operational Areas coordinating directly with the State or Joint Field Office. Certain assumptions about the functionality of the regional level of SEMS after a catastrophic event need to be solidified.
 - The current draft refers to an Incident Management System (IMS). The term is used generically in the document to refer to any system used to manage the incident. RIMS and WebEOC are considered IMSs. As an IMS like WebEOC becomes more widely adopted in the Bay Area, additional details can be added that will provide value to the user of the Plan.

In its current form, the Plan Template is useful as guidance for establishing and operating a Logistics Center. Additional discussions need to occur to fully integrate the concept into regional planning and evaluate its effectiveness.

RECOMMENDATION

Additional planning discussions and exercises need to occur involving all levels of government and relevant stakeholders to determine how best apply the concept of a Logistics Center to coordinating a catastrophic disaster response in the Bay Area. The upcoming CONPLAN revision meetings (specifically any meeting addressing the topic of logistics) may offer the opportunity for continued discussion of this concept.

CONCLUSION

The gaps and recommendations listed in this report are not inclusive of every gap or recommendation identified during the plan development process, but those included here were determined by stakeholders to be the most critical. Addressing them in future planning efforts will better prepare the region for a catastrophic event and may mitigate impacts.

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ACRONYMS

CA-EF – California Emergency Function

Cal OES - California Governor’s Office of Emergency Services

CONPLAN – San Francisco Bay Area Earthquake Readiness and Response: Concept of Operations Plan

ESF – Emergency Support Function

FEMA – Federal Emergency Management Agency

JFO – Joint Field Office

LSA – Logistics Staging Area

NGO – nongovernmental organization

NRF – National Response Framework

Plan – Regional Catastrophic Earthquake Logistics Response Plan

POD – Commodity Point of Distribution

RCPGP – Regional Catastrophic Preparedness Grant Program

Report – Regional Catastrophic Earthquake Logistics Response Plan Gaps and Recommendations Report

SEMS – California Standardized Emergency Management System

UASI – Urban Area Security Initiative

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