

## Appendix 13 to Annex C: Conduct Debris Clearance

### **1.0 SITUATION**

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Clearance of debris from routes that support emergency response operations is necessary immediately after an earthquake. Analysis from the ShakeOut Scenario indicates that the counties of Los Angeles, San Bernardino, Orange and Riverside will generate the greatest amount of debris as a result of an earthquake along the San Andreas Fault Line (See Table below). Additional analysis indicates that while there is sufficient land fill space to handle the debris, landfills are not always located in the jurisdictions where the greatest debris damage will occur and many local jurisdictions do not have the capacity to quickly clear and dispose of the amount of debris that will be generated by the earthquake. Therefore, local jurisdictions require state and federal support to quickly clear debris to enable emergency response operations. Consequently, a coordinated debris clearance strategy is required to enable emergency response workers to perform lifesaving and life sustaining measures immediately after the initial shaking stops.

**Debris Generated by County**

<b>County</b>	<b>Imperial</b>	<b>Kern</b>	<b>Los Angeles</b>	<b>Orange</b>	<b>Riverside</b>	<b>San Bernardino</b>	<b>San Diego</b>	<b>Ventura</b>
<b>Debris in Tons</b>	9,000	3,500	48,081,000	13,574,000	2,698,000	15,831,000	1,000	10,000

#### **a. Purpose**

- Coordinate and execute debris clearance after a catastrophic earthquake.
- Describe the process for transitioning from debris clearance to debris removal and disposal operations.

### **2.0 MISSION**

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To clear emergency routes in order to establish a network of support from critical staging areas to mass care sites and critical facilities as quickly as possible. A Debris Management Task Force will be established initially at the SOC and transition to the JFO, once established. Members include Cal/EPA, Caltrans, CHP, The Debris Management Task Force aims to ensure priority lifelines are open and a transportation network is established to support emergency operations including: medical evacuations, search and rescue, firefighting, and distribution of emergency relief supplies to the population centers.

### **3.0 EXECUTION**

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Cal EMA immediately activates an inter-governmental Debris Management Task Force in the State Operations Center (SOC) to oversee debris clearance and removal operations. Once the JFO is established, the Debris Management Task Force reports to the Operations Section at the JFO, overseeing debris clearance and removal planning and execution through the coordinated use of local, state, federal, NGO and private sector contracted staff and equipment.

### **a. Concept of Operations**

The TF takes a phased approach to debris removal, first focusing on clearing the major Staging Areas (ports and airfields) and then working from these locations to clear and shove debris from primary emergency routes in order to establish lines of supply. These actions occur simultaneously with local debris clearance operations to clear critical facilities and roadways for emergency workers. In Phase 2a, local, state and federal debris entities move debris by clearing and shoving (moving debris out of the way). Phase 2b prioritizes debris removal along primary and secondary transportation corridors for access to mass care sites and critical facilities, enabling response operations. During Phase 2c, debris is staged and transported to existing disposal sites and new temporary disposal and reduction sites (TDRS) are established until permanent solutions can be found. Simultaneously, the TF coordinates debris removal and disposal efforts across jurisdictional boundaries when local jurisdictions do not have sufficient landfill sites within their Operational Area (OA) to dispose of the debris.

#### **(1). Phase 1 - Normal Operations**

**The purpose of Phase 1 is to coordinate with applicable partners and review preparedness procedures.**

**END STATE: Phase 1 ends when the earthquake begins.**

#### **(a). Tasks to be performed**

##### **Local**

1. Local jurisdictions conduct the following:

- Identify and prioritize critical lines of supply (roads, railways), staging areas (airports) and other critical facilities (ports, and critical infrastructure) that need to be cleared of debris to support emergency response operations.
- Develop procedures to conduct immediate debris clearance from prioritized lines of supply and staging areas to support emergency response operations.

##### **State**

2. Cal EMA conducts the following:

- Collate and maintain up-to-date data from local jurisdictions on critical lines of communications, staging areas and other critical facilities.
- Prioritize staging areas, critical infrastructures and routes (based on recommendations from Caltrans and CHP).
- Exercise and update plans (to include the maps of critical routes, staging areas, and infrastructure) for debris removal operations.
- Provide state agencies and local governments with guidance regarding requirements that must be met to ensure eligibility of debris management activities for funding.

- Oversee procedures and guidance concerning recycling in the Integrated Waste Management Disaster Plan.
3. Caltrans conducts the following:
    - Prioritize roads, highways, rails and other important transportation routes.
    - Identify debris clearance resources and contractors/vendors.
    - Establish contracting agreements and procedures for debris removal from highways and provide information on contracts to Cal EMA, FEMA and USACE.
  4. California Environmental Protection Agency (Cal/EPA)/California Integrated Waste Management Board (CIWMB) identifies and establishes procedures for securing TDRSs (including state owned land) and maintain/update Landfill and Disposal Site Maps. (See Tab B)

### **Federal**

5. USACE reviews/updates Pre-Scripted Mission Assignments (PSMAs) and existing contracts for debris removal and de-conflicts them with state contracts and the Environmental Protection Agency (EPA) contracts for debris removal that are associated with hazardous materials (HAZMAT).
6. FEMA participates in state efforts and exercises to update and test plans.
7. Department of Transportation (DOT) coordinates with Caltrans on route clearance and Federal Highway Administration (FHWA) programs in support of debris removal from highways.
8. EPA conducts the following:
  - Acts as coordinating agency for ESF 10 Oil and Hazardous Materials response planning for incidents in the inland zone.
  - Coordinates with the State USCG and USACE to prevent spills and develop plans to mitigate HAZMAT that might result from an earthquake. Provide technical assistance for non-hazardous waste management, including debris management and recycling/reuse opportunities.
  - Provide State solid waste agencies with assessments of staging and storage areas, solid waste facilities, and wastewater facilities as well as environmental sampling and monitoring

### **(2). Phase 2a - Activation (Immediate Response)**

**The purpose of Phase 2a is to stand up the Task Force, conduct initial assessments and prepare to deploy assets to the incident area to support local debris removal operations.**

**END STATE: Phase 2a ends when clear-and-shove debris operations are completed at staging areas and primary emergency routes in order to establish lines of supply.**

**(a). Tasks to be performed**

**Local**

1. Local jurisdictions conduct the following:

- Execute debris clearance operations.
- Begin immediate clearing of prioritized routes, staging areas and critical facilities.
- Report status of debris clearance operations to EOCs.
- Request assistance as required.

**State**

2. Cal EMA conducts the following:

- Stands up the Debris Management Task Force in the SOC.
- Notifies members and coordinates initial response efforts of Caltrans, Cal/EPA and California Highway Patrol (CHP).
- Collaborates with local governments to prioritize debris removal at SAs and along critical transportation corridors and communicates priorities to RRCC.
- Coordinates Department of Water Resources efforts to support clearance of debris from state controlled floodways and with State's General Services to clear debris from state owned facilities, property and roadways.

3. Caltrans conducts the following:

- Assess conditions of State highways and estimate time for repair and potential road restrictions or closures; and transmit information about the conditions of roads to Operations Section and the TF Leader.
- Establish debris clearance priorities along state and federal highway system.
- Coordinate with ESF 1 and Federal Highway Administration (FHWA), Office of Emergency Operations.
- Support OA requests for services related to state highway systems.
- Issue permits for transport of debris on state highway system.

4. Resources Agency conducts the following:

- California Integrated Waste Management Board provides debris disposal guidance to TF.

5. CalEPA conducts the following:

- Assigns hazardous material contractors to perform assessment, stabilization, removal and disposal of hazardous material.

## **Federal**

### 6. FEMA conducts the following:

- ESF 1 monitors and reports status of and damage to transportation infrastructure.
- ESF 1 identifies temporary alternative transportation solutions to be implemented when primary systems or routes are unavailable or overwhelmed.
- Mission assigns USACE to coordinate ESF 3 efforts to support state and local debris clearance and removal operations.
- Coordinates with USCG and Natural Resource Conservation Service (NRCS) on debris removal from navigable waterways.
- Mission assigns ESF 10 to manage white goods and other HAZMAT material.
- Mission assigns ESF 4 to provide chainsaw teams not required for firefighting to support debris removal teams to assist in the removal of trees and shrubs.

### 7. USACE conducts the following:

- Leads and coordinates federal support for debris removal.
- Activate PRTs, debris specialist SMEs, commercial contractor teams and contracting capabilities.
- Provide Subject Matter Experts (SMEs) to support Emergency Response Team - Advance (ERT A) with emergency debris clearance and initial interagency debris management planning.
- Provide assistance to USCG for debris removal from ports and navigable waters.

### 8. USCG coordinates with USACE to develop debris removal plan for ports and navigable waters and manages hazardous debris operations in the coastal zone.

### 9. NRCS removes debris from canals.

### 10. ESF 10 conducts the following:

- Activates Federal On-Scene Coordinators (FOSC) in coordination with FEMA and USACE to detect, identify, contain and manage hazardous debris.
- Manages the removal of white goods inland.

### **(3). Phase 2b - Deployment and Employment**

**The purpose of Phase 2b is to prioritize debris clearance along primary and secondary transportation corridors for access to mass care sites and critical infrastructure to enable response operations.**

**END STATE: Phase 2b ends when debris is cleared from primary transportation corridors, secondary corridors and access to mass care sites and critical infrastructure has been established.**

#### **(a). Tasks to be performed**

##### **Local**

1. Local jurisdictions conduct the following:
  - Continue debris clearance operations of primary and secondary roadway systems.
  - Conduct tactical planning for removal of debris along primary and secondary roadways and delivery to landfills.
  - Report status of actions taken, equipment and personnel updates including location, and anticipated actions for upcoming operational reporting periods.
  - Identify potential landfills and TDRSs.
  - Request assistance as required.

##### **State**

2. Cal EMA conducts the following:
  - Temporarily waive state regulations for debris removal operations
  - Coordinate the use of equipment to clear debris via mutual aid.
3. Caltrans, in coordination with local government, moves debris from established routes.
4. California Highway Patrol (CHP) clears vehicles from routes and provides security for clearance operations on highways.
5. California National Guard provides hand crews, trucks, front loaders and transportation to support debris clearance operations as required and reports back to TF leader on mission status.

##### **Federal**

6. USACE conducts the following:
  - Coordinates Federal support efforts for debris removal

- Deploys debris PRTs and PRT TA Management Cell to support debris clearance and removal.
- Supports state and local operations to clear debris from SAs and prioritized routes from hubs and spokes.

7. ESF 4 deploys hand crews and chainsaw crews, trucks, front loaders and transportation not required for firefighting to assist with debris removal operations.

8. ESF 10 deploys US EPA and USCG Federal On-Scene Coordinators to coordinate with the TF and EOCs, provides subject matter expertise and conducts HAZMAT assessments.

9. USCG conducts the following:

- Deploys teams to manage debris removal support for ports and navigable waterways.
- Coordinates with EPA for debris that is mixed with hazardous material.

10. Natural Resource and Conservation Service (NRCS) conducts debris removal from channels and canals to prevent imminent threat to life and property.

#### **(4). Phase 2c - Sustained Response**

**The purpose of Phase 2c is to conduct removal and disposal of debris using existing and established new temporary disposal and reduction sites (TDRS) until permanent solutions can be found.**

**END STATE: Phase 2c ends when debris is removed from primary and secondary roadways and delivered to established landfills, disposal sites and/or TDRS for disposal.**

#### **(a). Tasks to be performed**

##### **Local**

1. Local jurisdictions conduct the following:

- Continue debris clearance and removal operations from public property, mass care sites, critical facilities and primary and secondary roadway systems.
- Continue to report status of actions taken, equipment and personnel updates including location, and anticipated actions for upcoming operational reporting periods to EOCs.
- Request assistance as required.

##### **State**

2. Debris Management Task Force Leader conducts the following:
  - Continues to coordinate debris clearance and removal of debris to landfills.
  - Provide updates on debris removal priorities, status of available debris removal equipment and updates on debris removal and HAZMAT operations as well as other information affecting debris clearance & removal operations to Operations Chief, TF members and the UCG.

## **Federal**

3. USACE conducts the following:
  - Continue to coordinate federal support to the Debris Removal TF and provide the UCGF federal oversight of debris removal operations. Provide contractor resources to coordinate and execute all necessary federal actions associated with debris clearance and removal (pick-up, hauling, and movement of debris; segregating and reducing debris at a landfill; hauling to a final disposal site; or managing TDRSs).
  - Exact requirements are provided using FEMA task orders against debris removal Mission Assignments (MAs).
4. ESF 10 conducts the following:
  - Provide contractor resources to coordinate and execute federal functions associated with debris removal of HAZMAT and other designated debris such as white goods (pick-up, hauling, and dumping of debris; segregating and reducing debris at a landfill or TDRS; hauling from a TDRS to a final disposal site; or managing a TDRS).
  - Provide UCG and FEMA with support for oversight of state and/or local entities' HAZMAT and other designated debris operations.
  - Provide guidance on Personal Protective Equipment to use for debris clearance and removal operations in HAZMAT affected areas.
5. USCG conducts the following:
  - Continue to manage debris removal and HAZMAT support for ports and waterways.
  - Continue to coordinate with USACE for HAZMAT and debris removal from ports and navigable waterways.
6. NRCS continues to remove debris from channels and canals to prevent imminent threat to life and property.