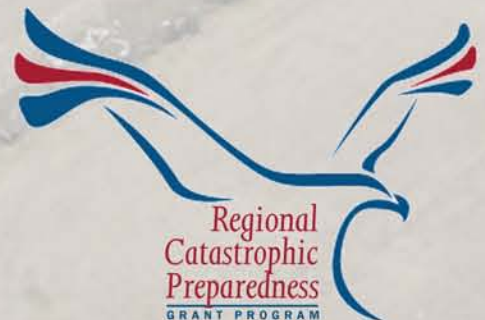




Monterey County Catastrophic Incident Mass Fatality Plan

August 2010

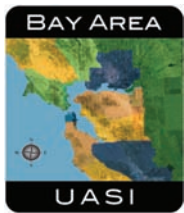


Cover photo: Carville Victim Identification Center, Carville, Louisiana, February 24, 2006.
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Monterey County Catastrophic Incident Mass Fatality Plan

August 2010

Prepared for:



Bay Area
Urban Area Security Initiative

With support from:



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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 within 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:

- 1) The specific conditions of the incident, including the incident type, geographic extent, severity, timing, and duration;
- 2) The availability of resources for response at the time of the incident;
- 3) Decisions of Incident Commanders and political leadership; and
- 4) 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 San Francisco Bay Area's vulnerability to earthquakes is well known. According to the 2008 Uniform California Earthquake Rupture Forecast,¹ the probability of a magnitude 6.7 or greater earthquake in the Bay Area within the next 30 years is 63 percent. Other significant threats to the region are major chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incidents and influenza pandemics.

A catastrophic incident with thousands of fatalities will immediately overwhelm local, regional, and State emergency response capabilities. The region will need massive, rapid support from the Federal Government, other local governments in California, other states, and nonprofit and private-sector organizations. The effectiveness of the region's response will affect the long-term recovery of the region's communities and economy. An effective response will only be possible 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 help the areas 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 12 counties and 2 cities² in the Bay Area. For fiscal year 2007/2008, the UASI Program has used RCPGP funding to prepare plans in five functional areas: Debris Removal, Mass Care and Sheltering, Mass Fatality, Mass Transportation/Evacuation, and Volunteer Management.

This document, the Monterey County Catastrophic Incident Mass Fatality Plan (Plan), has been prepared under the RCPGP. Management of mass fatalities generated by a major earthquake, CBRNE incident, or pandemic is a critical component of the response. A magnitude 7.9 earthquake on the San Andreas fault in the Bay Area will result in an estimated 7,000 fatalities.

This Plan is an annex to the Monterey County Emergency Operations Plan (EOP) and the Multi-Jurisdictional Hazard Mitigation Plan. The Plan is consistent with:

- The Monterey County Emergency Operations Center Standard Operating Procedures Document (EOC SOP)

¹ Edward H. Field, et al., *The Uniform California Earthquake Rupture Forecast, Version 2.0 (UCERF 2)*, (USGS Open File Report 2007-1437, 2008). Available at http://pubs.usgs.gov/of/2007/1437/of2007-1437_text.pdf.

² Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties; and the cities of Oakland and San Jose.

- County of Monterey Office of the Sheriff Coroner Division Mass Fatality Response Plan
- The San Francisco Bay Area Regional Emergency Coordination Plan (RECP), including the Regional Catastrophic Incident Mass Fatality Concept of Operations developed under the RCPGP as an incident-specific subsidiary plan to the RECP
- The San Francisco Bay Area Catastrophic Earthquake Readiness Response Concept of Operations Plan, prepared by FEMA

The Monterey County Catastrophic Incident Mass Fatality Plan was developed with the participation of the following members of the Monterey County Mass Fatality Working Group:

- Monterey County Coroner's Office
- Monterey County Health Department
- Monterey County Department of Public Works
- Natividad Medical Center
- Salinas Valley Memorial Hospital
- Community Hospital of the Monterey Peninsula
- Mee Memorial Hospital
- American Red Cross Monterey San Benito Chapter

Table of Contents

Executive Summary	ES-1
ES-1 Scope.....	ES-1
ES-2 Catastrophic Nature of the Earthquake.....	ES-1
ES-3 Coroner Responsibilities	ES-1
ES-4 State Agency Responsibilities.....	ES-2
ES-5 Federal Agency Responsibilities.....	ES-3
ES-6 Priorities for Response.....	ES-4
ES-7 Mass Fatality Operations	ES-4
1 Introduction	1
1.1 Purpose.....	1
1.2 Plan Objectives	2
1.3 Plan Organization.....	2
1.4 Audience	3
1.5 Scope	3
1.5.1 Nature and Duration of the Scenario Event.....	3
1.5.2 Geographic Scope.....	4
1.5.3 Time Frame	4
1.6 Applicability	5
1.7 Authorities, Regulations, and Requirements	5
1.7.1 Local.....	5
1.7.2 State.....	5
2 Situation and Assumptions	7
2.1 Scenario Event.....	7
2.2 General Planning Assumptions	8
2.3 Mass Fatality Management Assumptions.....	10
3 Roles and Responsibilities	13
3.1 Operational Area Level.....	13
3.1.1 Local Governments	13
3.1.2 Monterey Operational Area	13
3.2 Regional Level	15
3.3 State Level	15
3.4 Federal Level	15
3.5 Private-Sector Entities and Nongovernmental Organizations.....	15
4 Coordination and Communication	29
4.1 Incident Management.....	29
4.1.1 Command and Control	29
4.1.1.1 Scene Investigation Group	30
4.1.1.2 Temporary Morgue Group	31
4.1.1.3 Family Assistance Group.....	32
4.1.2 Monterey Operational Area EOC.....	33

- 4.1.2.1 Operational Area Law Enforcement Mutual Aid Coordinator 34
- 4.1.2.2 Law Enforcement Branch Coordinator..... 34
- 4.1.2.3 Operational Area Coroner Mutual Aid Coordinator 34
- 4.1.2.4 Operational Area EOC Coroner/Fatalities Management Group
Supervisor 34
- 4.1.3 DOCs..... 35
 - 4.1.3.1 Mass Fatality Incident Management Unit..... 35
- 4.1.4 Information, Resource Request, and Report Flow..... 35
 - 4.1.4.1 Coordination among EOCs..... 35
 - 4.1.4.2 Coordination with Cal EMA..... 36
 - 4.1.4.3 Regional Coroner/Medical Examiner Conference Call..... 36
- 4.2 Information and Communication 37
 - 4.2.1 Emergency Communication Systems..... 37
 - 4.2.2 Public Information..... 38
 - 4.2.3 Intelligence and Information Sharing 38
- 5 Operations 39**
 - 5.1 Priorities and Objectives..... 39
 - 5.1.1 E to E+72 Hours 39
 - 5.1.2 E+72 Hours to E+14 Days..... 40
 - 5.1.3 E+14 Days to E+60 Days 41
 - 5.2 Resources for Mass Fatality Operations 41
 - 5.2.1 Monterey County Resources 41
 - 5.2.2 State Resources 43
 - 5.2.3 Federal Resources 43
 - 5.2.4 Private-Sector Resources..... 44
 - 5.2.5 Anticipated Resource Shortages 44
 - 5.2.6 Resource Integration 44
 - 5.3 Mass Fatality Operations..... 45
 - 5.3.1 Phase 1: Notification 46
 - 5.3.2 Phase 2: Scene Evaluation and Organization 47
 - 5.3.3 Phase 3: Recovery of Remains 49
 - 5.3.3.1 Pre-Search Actions..... 49
 - 5.3.3.2 Search and Recovery Resources 50
 - 5.3.3.3 Search and Recovery Team Positions..... 50
 - 5.3.3.4 Search and Recovery Equipment 50
 - 5.3.3.5 Search and Recovery Sequence 50
 - 5.3.3.6 Searching Collapsed Buildings 51
 - 5.3.3.7 Recovery Staging Area 51
 - 5.3.3.8 Gridding 52
 - 5.3.3.9 Natividad Medical Center and Other Hospitals 52
 - 5.3.3.10 Standard Precautions for Infection Control 52
 - 5.3.4 Phase 4: Fatality Collection Point..... 53
 - 5.3.5 Phase 5: Level 1 Transportation and Temporary Storage 54
 - 5.3.5.1 Transportation 54
 - 5.3.5.2 Pre-Examination Temporary Storage of Human Remains 55

5.3.6	Phase 6: Morgue Operations.....	55
5.3.6.1	County Morgues	59
5.3.6.2	Temporary Morgues	59
5.3.6.3	Regional Incident Morgue(s).....	60
5.3.6.4	Autopsies	61
5.3.6.5	Waste Handling	61
5.3.7	Phase 7: Level 2 Transportation and Temporary Storage.....	62
5.3.7.1	Post-Examination Temporary Storage of Human Remains	62
5.3.8	Phase 8: Final Disposition.....	62
5.3.8.1	Family Assistance Center	63
5.3.8.2	Personal Effects Collection Point.....	68
5.3.8.3	Preparations for Funeral Homes and Crematoriums	70
5.3.8.4	Death Registration (Vital Records)	70
5.3.8.5	Natividad Medical Center and Hospitals.....	71
5.3.8.6	Disposition of Unidentified Remains	71
5.3.9	Post Relief-Response Phase: Demobilization	71
5.4	Transition to Long-Term Operations.....	72
5.5	Response Timeline.....	72
6	Plan Maintenance.....	81
6.1	Plan Distribution	81
6.2	Plan Updates.....	81
6.3	Plan Testing, Training, and Exercises.....	81
6.4	After-Action Report.....	81
Appendix A	Glossary	
Appendix B	Maps	
Appendix C	Information Collection Plan for Mass Fatality	
Appendix D	Toolkit	
Appendix E	Chemical, Biological, Radiological, Nuclear, or High-Yield Explosive Incident	
Appendix F	Pandemic Influenza Event	
Appendix G	Normal Versus Altered Standards of Death Care	

List of Figures

Figure 3-1	Organization of the Monterey County Coroner’s Office.....	14
Figure 5-1	Coroner/Medical Examiner Mutual Aid resource request flow.....	42
Figure 5-2	Phases and operational elements of mass fatality management.	46
Figure 5-3	Human remains processing: Morgue operations.....	57
Figure 5-4	Family Assistance Center flow chart.	66

List of Tables

Table 2-1 Fatalities in the San Francisco Bay Area after the scenario event, by county..... 11

Table 3-1 Operational Area agencies with mass fatality responsibilities..... 16

Table 3-2 Regional agencies with mass fatality responsibilities..... 19

Table 3-3 State agencies with mass fatality responsibilities.....20

Table 3-4 Federal agencies with mass fatality responsibilities.....23

Table 3-5 Private-sector and nongovernmental agencies with mass fatality responsibilities.26

Table 5-1 Monterey County Coroner mass fatality incident operations personnel assignments.48

Table 5-2 Response timeline for mass fatality management..... 73

Executive Summary

The Monterey County Catastrophic Incident Mass Fatality Plan (Plan) is a scenario-driven, function-specific operations plan that describes mass fatality management operations in the aftermath of a catastrophic earthquake in the Bay Area. The Plan is:

- An annex to the San Francisco Bay Area Regional Emergency Coordination Plan (RECP), prepared by the California Emergency Management Agency (Cal EMA)
- Consistent with the San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan, prepared by the Federal Emergency Management Agency (FEMA) and Cal EMA

ES-1 Scope

This Plan:

- Addresses the response to a moment magnitude (**M**) 7.9 earthquake on the San Andreas fault
- Is applicable to the response during the first 60 days after the earthquake
- Applies to the 12 counties in the Bay Area
- Describes mass fatality management operations applicable at the regional level

ES-2 Catastrophic Nature of the Earthquake

Threats and hazards resulting from the earthquake include: structural and nonstructural 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.

The earthquake significantly affects all regional transportation networks; large portions of the transportation infrastructure are likely damaged or destroyed. The earthquake also results in:

- 7,000 fatalities
- 300,000 people seeking shelter
- 50 million tons of debris
- 1.8 million households without potable water
- 500,000 households without electricity

ES-3 Coroner Responsibilities

- The management of the estimated 7,000 fatalities is the responsibility of the county Coroners/Medical Examiners in the region with support from local, regional, State, Federal, and private-sector entities. The primary responsibilities

of Sheriff-Coroner is as follows: Serves as lead agency for the management of mass fatalities for the Operational Area

- Manages/coordinates the recovery, storage, transport, processing and final disposition of human remains
- Coordinates the activation of the Family Assistance Center
- Signs death certificates for all incident-caused fatalities

ES-4 State Agency Responsibilities

The State agencies with primary roles in mass fatality management operations are as follows:

- Cal EMA
 - Serves as the lead State agency for emergency management response
 - Ensures the State is ready and able to mitigate against, prepare for, respond to, and recover from the effects of emergencies that threaten lives, property, and the environment
 - Mobilizes State resources, obtains Federal resources while maintaining oversight of the Mutual Aid System
 - Coordinates integration of Federal resources into response and recovery operations
- Cal EMA, Law Enforcement Branch, Coroners' Mutual Aid Special Operations Unit
 - Serves as custodian of the Coroners' Mutual Aid Plan
 - Manages the State Law Enforcement, Search and Rescue, and Coroner Mutual Aid Systems
 - Is point-of-contact for the coordination of inter-regional Coroner mutual aid, state agency resource mutual aid allocation, and out-of-state resource coordination, and the use of federal resources
- California Department of Justice
 - Assists California law enforcement agencies and official emergency services agencies in the physical or dental identification of missing or unidentified deceased persons through the comparison and matching of reports and records.
 - Provides expertise in the operation of the National Crime Information Center's Missing and Unidentified Persons System.
 - Collects, documents, and submits biological samples of unidentified remains and samples from family members or personal articles of a missing person for DNA analysis

- California Military Department
 - Provides personnel and equipment support to local authorities to collect, identify, transport, and store the deceased
 - Assists with protection of life and property
 - Conducts search and rescue operations

ES-5 Federal Agency Responsibilities

The Federal agencies with primary roles in debris removal are as follows:

- FEMA
 - Coordinates requests for direct Federal assistance from Cal EMA and mission assigns other Federal agencies to conduct debris removal operations
 - Implements the Public Assistance Program with Cal EMA to reimburse local and State government agencies for mass fatality costs
- U.S. Department of Health and Human Services
 - Serves as Federal Emergency Support Function (ESF) #8 (Public Health and Medical Services) lead with oversight of all Federal ESF #8 activities
 - Deploys ESF #8 personnel appropriate to the response requirements, which may include Regional Emergency Coordinators, subject matter experts, Incident Response Coordination Teams, and Disaster Mortuary Operational Response Teams
 - Requests ESF #8 partners to activate and deploy health and medical personnel, equipment, and supplies in response to requests for Federal public health and medical equipment
- Disaster Mortuary Operational Response Team (DMORT)
 - Operates Regional Incident Morgue(s) and/or supports County Coroner/ Medical Examiner Morgue operations
 - Assists in the organization and operation of the Family Assistance Center (FAC)
 - Is capable of decontaminating chemically contaminated remains and monitoring the remains' level of contamination
- U.S. Department of Homeland Security, Urban Search & Rescue Response System
 - Supports recovery of the deceased
 - Identifies probable locations of remains
 - Provides advice and assistance in handling and disposing of radiologically contaminated remains.

- U.S. Department of Defense
 - Provides assistance for human remains processing, including identification
 - Provides information regarding chemical agents and their associated risks
 - Provides hazardous materials expertise and agent detection and identification
 - Provides non-refrigeration transportation assets

ES-6 Priorities for Response

Mass fatality response will proceed according to the following priorities:

- Determine the number of fatalities and identify the locations of the deceased
- Recover human remains and personal effects
- Process all human remains and personal effects
- Provide family assistance services
- Facilitate final disposition of human remains

ES-7 Mass Fatality Operations

Mass fatality operations include the following nine phases:

1. **Notification:** Disaster notification to the Coroner will typically be routed through routine law enforcement, Emergency Operations Center channels, or news media broadcasts in advance of a request to transport human remains.
2. **Scene Evaluation and Organization:** The Coroner determines the most effective and efficient approach for managing human remains by conducting an initial situation assessment. The mass fatality response organization is greatly influenced by the assessment.
3. **Recovery of Remains:** The Coroner oversees human remains recovery with the goal of establishing a confirmed identification for each decedent, associating each body part with a particular decedent, documenting any injury pattern, and completing required investigations.
4. **Fatality Collection Point:** Fatality collection points provide short-term shelter, privacy, and security of human remains and associated evidence until transportation to the incident morgue is arranged.
5. **Level 1 Transportation and Temporary Storage:** Level 1 transportation and temporary storage refers to the movement of the human remains from the fatality collection point to the incident morgue.
6. **Morgue Operations:** Morgue operations will be conducted at county morgues and at Regional Incident Morgues. The goal of each morgues operation is to:
 - Document the cause, manner, and mechanism of death
 - Confirm identity of the deceased

- Provide a physical accounting for all deceased directly affected by the incident
 - Provide death notification, generate a death certificate, and release the deceased and associated personal effects to the next of kin for final disposition
7. **Level 2 Transportation and Temporary Storage:** Level 2 transportation and temporary storage refers to the temporary storage and transport of human remains between the morgue facilities and the locations of final disposition.
 8. **Final Disposition:** Final disposition options include individual burial, State-sponsored individual burial, entombment, temporary interment, voluntary cremation, and involuntary cremation. The Coroner/Medical Examiner must facilitate the release and final disposition of all human remains.
 9. **Demobilization:** At a time when the majority of remains have been recovered, documented, and released, the DMORT teams will begin to demobilize the Regional Incident Morgues and transfer responsibility for morgue operations back to the Coroner/Medical Examiner for each respective jurisdiction.

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1 Introduction

Responding to catastrophic events and the hazardous environments they create is exceedingly complex. Preparing for an adequate response places a heavy burden on planners in part because of the need to integrate resources from every level of government and from the community. An earthquake-specific plan includes the standard elements of a traditional Emergency Operations Plan (EOP) but focuses on addressing the impacts of and challenges associated with the earthquake.

The number of reported deaths is generally what frames the perception of the magnitude of a catastrophic event. Media reports after a disaster often include images of death and discussions about it. Disasters that result in a high number of fatalities have a profound and long-lasting effect on the communities in which they occur. The effect that an unexpected loss of a family member or close friend has on one person is similar to the effect an event with mass fatalities has on a community.

After a catastrophic event, it is critically important that the deceased be cared for in a respectful, considerate, and open way, from recovery to release to next of kin or final disposition. The success or failure of the response will in large part be measured by how well the affected families have been cared for, especially the families who have lost a family member or a friend.

A mass fatality event is generally defined as an event that results in more fatalities than can be handled effectively by a jurisdiction using its existing capabilities and resources.³ Obtaining and coordinating the use of outside resources are complex tasks that require effective planning.

The Monterey County Catastrophic Incident Mass Fatality Plan (Plan) is a scenario-driven, function-specific operations plan for Monterey County that describes mass fatality operations in the aftermath of a catastrophic earthquake on the San Andreas fault.

1.1 Purpose

The purpose of the Plan is to provide a guide for Monterey County management of mass fatalities caused by a catastrophic incident. The Plan provides details for:

- Staging, command, control, and deployment of State and Federal resources in Monterey County

³ Robert A. Jensen. *Mass Fatality and Casualty Incidents: A Field Guide* (Boca Raton, Florida: CRC Press, LLC, 2000).

- Application of the Incident Command System for managing mass fatality operations
- Coordination of local, regional, State, and Federal governments, and the private-sector entities that have a role in mass fatality operations

1.2 Plan Objectives

Objectives for the Plan are as follows:

- Project the catastrophic impacts of the earthquake (main document) and the impacts of a chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incident and an pandemic influenza (appendices)
- Define the planning assumptions
- Identify agencies with roles in mass fatality operations and define their roles
- Describe the resources required for mass fatality operations and mechanisms for integrating State and Federal resources into mass fatality operations in Monterey County
- Identify recommended priorities
- Identify recommended, time-based objectives to guide response operations
- Establish a response timeline for mass fatality operations

1.3 Plan Organization

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

Section 2 describes the scenario event, its projected impacts, and the assumptions underlying the scenario event and the response to it.

Section 3 is a description of the roles and responsibilities of the local response agencies, as well as State and Federal entities involved in mass fatality operations.

Section 4 contains information on communication and coordination between local, State, and Federal entities involved in mass fatality operations.

Section 5 contains operational concepts including priorities for mass fatality operations, the objectives that support the priorities, and the actions necessary to achieve the objectives.

Section 6 describes how the Plan will be maintained, updated, and exercised.

Appendix A is a glossary of acronyms, abbreviations, and key terms.

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

Appendix C is an information collection plan for mass fatalities.

Appendix D contains a toolkit of operational checklists.

Appendix E describes the CBRNE scenario event and the response.

Appendix F describes the influenza pandemic scenario event and the response.

Appendix G compares Normal and Altered Standards of Death Care.

1.4 Audience

As an incident-specific appendix to the Monterey County EOP and Monterey County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), the Plan is intended for:

- Monterey County Coroner's Office
- Monterey County Office of Emergency Services
- Monterey County Department of Health
- Monterey County Law Enforcement Association
- American Red Cross, Monterey Bay Chapter

1.5 Scope

The Plan describes Monterey County mass fatality operations in response to the scenario event.

1.5.1 Nature and Duration of the Scenario Event

As described in the National Response Framework, a catastrophic event is any natural or human-caused incident, including an act of terrorism, 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 2.1** for more information about the scenario event.

Two additional events, a CBRNE incident and an influenza pandemic, are addressed (see **Appendices E** and **F**, respectively).

1.5.2 Geographic Scope

The earthquake will have a catastrophic impact on the Bay Area region. The Regional Catastrophic Incident Mass Fatality Concept of Operations includes the following 12 counties (also see **Appendix B, Map B-1**):

- 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

The Monterey County Catastrophic Incident Mass Fatality Plan pertains to mass fatality operations within Monterey County (see **Appendix B, Map B-2**).

Impacts to these jurisdictions affect local, regional, State, and Federal response and recovery decisions. These counties will bear direct, significant impacts, impacts from regional disruption of critical infrastructure systems, and/or short- or long-term impacts to the economy. Adjacent counties, such as Mendocino, Sacramento, San Joaquin, and Stanislaus, may be affected directly by damage or indirectly by evacuations and other response actions. An **M** 7.9 earthquake will also have significant effects on the rest of California and the Nation as a whole.

1.5.3 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 given in hours or days after the earthquake (E).

The Plan does not address preparedness activities that may occur before the incident or long-term activities that will occur after 60 days. However, **Section 5.4** provides guidance on long-term mass fatality objectives.

1.6 Applicability

The Plan is an incident-specific and function-specific annex to the Monterey County EOP and MJHMP, and a companion document to the Monterey County Coroner's Office Mass Fatality Response Plan.

The Plan is also consistent with the following:

- The Regional Catastrophic Incident Mass Fatality Concept of Operations, which is an incident-specific subsidiary plan of the San Francisco Bay Area Regional Emergency Coordination Plan (RECP)
- The 2008 San Francisco Bay Area Catastrophic Earthquake Readiness Response Concept of Operations Plan, prepared by FEMA

1.7 Authorities, Regulations, and Requirements

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

Nothing in this Plan should interfere with, or usurp, the authority of the Monterey County Coroner's Office in carrying out his or her duties and responsibilities.

1.7.1 Local

Local authorities for emergency response are described in the Monterey County EOP and MJHMP; the EOC Standard Operating Procedures document contains contact information for personnel involved in mass fatality operations. Additional regulations and requirements that apply specifically to mass fatality operations in Monterey County are:

- Monterey County Code Ch 2.68 Emergency Procedures and Organization
- Monterey County Code 15.40 Emergency Medical Services System
- Monterey County Code Title 11 Public Peace, Morals, and Welfare
- Monterey County Code Title 14 Streets, Sidewalks, and Public Places

1.7.2 State

As described in the EOP and MJHMP, emergency response operations in Monterey County are conducted in accordance with:

- California Emergency Services Act
- State of California Emergency Plan
- Standardized Emergency Management System (SEMS)

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2 Situation and Assumptions

This section contains a description of the scenario event and its projected impacts and the general and mass fatality specific assumptions that were used in the development of this Plan.

2.1 Scenario Event

The scenario event is an **M** 7.9 earthquake on the northern segment of the San Andreas fault. The basis for the scenario is a Hazards U.S. (HAZUS) analysis⁴ performed by the Earthquake Engineering Research Institute, with support from the U.S. Geological Survey and Cal EMA, beginning in 2005 and modified in 2009 by URS Corporation for the RCPGP.

The characteristics of the scenario event and its impacts on the region, including Monterey County are:

1. The earthquake occurs in January on a weekday at 1400 hours Pacific Standard Time.
2. A foreshock precedes the main shock by 20 to 25 seconds. There is no other warning.
3. The main shock lasts 45 to 60 seconds.
4. The epicenter is just outside the entrance to the San Francisco Bay, west of the Golden Gate Bridge.
5. The earthquake ruptures approximately 300 miles of the northern segment of the San Andreas fault, from the San Juan Bautista area in the south to Cape Mendocino in the north.
6. Shaking is felt in Oregon to the north, Los Angeles to the south, and Nevada to the east.
7. The estimated magnitude is **M** 7.9 with a Modified Mercalli (MM) intensity of VIII (severe shaking/moderate to heavy damage) to IX (violent shaking/heavy damage) in widespread areas of the most severely affected counties. Pockets in the affected counties experience instrument intensity of MM X (extreme shaking/very heavy damage), particularly areas immediately adjacent to the fault and areas where liquefaction is likely to occur. The shaking intensity in the region and in Monterey County is shown in **Appendix B, Map B-3**.
8. Ground shaking and damage occurs in 19 California counties, from Monterey County in the south to Humboldt County in the north and into the San Joaquin Valley.

⁴ HAZUS is a loss estimation software program developed by the National Institute of Building Sciences (NIBS) for FEMA. The version used for this analysis (HAZUS-MH MR3) was developed by NIBS in 2003.

9. Damage is catastrophic in the areas that experience shaking intensities of MM IX and X and high or very high levels of susceptibility for liquefaction, which are the areas adjacent to the fault in Marin, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Sonoma counties.
10. Counties along the fault outside the Bay Area, such as Mendocino, may sustain damage and require response.
11. Central Valley counties such as Sacramento and San Joaquin may be affected immediately by evacuations and other response actions.
12. The rest of California and the Nation are affected significantly by the need to respond; the deaths, injuries, and relocations of Bay Area residents; economic disruption; and media attention.
13. Threats and hazards resulting from shaking, surface fault rupture, and liquefaction include:
 - Structural and nonstructural damage to buildings and infrastructure, including widespread collapse of buildings
 - Widespread fires
 - Subsidence and loss of soil-bearing capacity, particularly in areas of liquefaction
 - Displacement along the San Andreas fault
 - Widespread landslides (see **Appendix B, Map B-4** for landslide susceptibility in Monterey County)
 - Hazardous materials spills and incidents
 - Dam/levee failure resulting in flooding
 - Civil disorder
14. Threats and hazards resulting from the main shock are aggravated or recur during aftershocks, which continue for months after the main shock.
15. The earthquake does not generate a tsunami or seiche, despite its magnitude.
16. Potable water supply systems suffer major damage.
17. The earthquake results in massive power outages, and auxiliary power systems and generators are not sufficient to meet critical needs.
18. There are no major dam failures in Monterey or adjoining counties.

2.2 General Planning Assumptions

The general planning assumptions that will drive the mass fatality response are:

1. Within 24 hours:
 - The County Chief Administrative Officer proclaims a Local Emergency.

- The Governor of California proclaims a State of Emergency and requests that the President declare a disaster.
 - The President declares a Major Disaster, making Federal assistance available under the Stafford Act.
 - The U.S. Department of Homeland Security and FEMA implement the Catastrophic Incident Supplement to the National Response Framework and begin mobilizing Federal resources.
2. Because of extensive damage to buildings and transportation infrastructure in Oakland, the Cal EMA Regional Emergency Operations Center (REOC) in Oakland is not functional; its functions are immediately assumed by the State Operations Center (SOC) in Sacramento.
 3. Outside the affected region, all elements of SEMS are functional, including communications and mutual aid systems.
 4. The response capabilities and resources of the local governments and the State in the region are quickly overwhelmed or exhausted.
 5. 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 or complete situation and critical needs assessment.
 6. 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 the damaged transportation infrastructure. First responders who are on duty may be held over for additional shift coverage.
 7. Once the President declares a disaster and commits Federal resources, the State and Federal governments establish joint operations to provide assistance to local jurisdictions.
 8. Massive assistance in the form of response teams, equipment, materials, and volunteers begins to flow toward the region, providing urgently needed resources but creating coordination and logistical support challenges.
 9. Because of damage to the transportation infrastructure (see **Appendix B, Map B-5**), out-of-region mutual aid, State and Federal resources, and resources from other states cannot begin to arrive for up to 72 hours.
 10. The Monterey County EOC experiences some damage but is partly operational. All other local government functions are severely compromised or focused entirely on response to the earthquake.
 11. The Monterey County EOC is overwhelmed and challenged to manage the response effectively.

2.3 Mass Fatality Management Assumptions

Listed below are assumptions specific to the mass fatality operations described in this Plan.

1. Local jurisdictions are overwhelmed with fatalities almost immediately.
2. County Coroner/Medical Examiner facilities in the counties with the most fatalities (San Francisco, San Mateo, and Santa Clara) may also be damaged by the earthquake, compromising local response capabilities.
3. Although Federal resources, including Disaster Mortuary Operational Response Teams (DMORT), are activated immediately, they do not arrive for at least 48 hours because of damage to infrastructure.
4. Emergency workers, including those necessary for fatality management, may not report to duty because they are evacuating their own families or because they have been injured or killed.
5. Coordination of local and State resources is accomplished through the Cal EMA Law Enforcement Branch, working with the Region II Coroner/Medical Examiner Mutual Aid Coordinator. The Region II Coroner/Medical Examiner Mutual Aid Coordinator is functioning after the earthquake.
6. The Coroner, hospitals, and the death care industry (funeral homes, crematoriums, and cemeteries), composed of public and private agencies, may be overburdened or lack facilities because of damage and require mutual aid, regulatory remedy, and/or State and Federal support (see **Appendix B, Map B-6**).
7. Due to severe impacts to other counties in the region, mass fatality mutual aid resources will likely be unavailable from within the region.
8. Given damage to infrastructure, major utilities and other essential services including fuel supply may be non-existent immediately after the event and for an extended period of time thereafter.
9. Depending on the location of the epicenter of the earthquake, Monterey County has the potential to be overwhelmed with fatalities.
10. The large-scale inventory of Coroner supplies and other associated equipment needed to respond to the catastrophic event may not be readily available because of supply disruptions. Other disaster response disciplines may compete for the same supplies.
11. Severe impacts to critical infrastructure may disrupt access to major transportation routes, cause loss of power and water supplies, and cripple communications systems, thereby significantly impeding efforts to effectively recover and manage the large number of dead.

12. Medicolegal and health-care systems and all emergency response agencies continue to have normal response case loads, in addition to case loads from mass fatality events.
13. Most hospital emergency preparedness efforts focus on doing “the greatest good for the greatest number” of living patients. Care for the deceased is not necessarily a priority.
14. Comprehensive, countywide hospital fatality plans that have standardized policies, procedures, and activities for all components of the medical health system in each county are not fully institutionalized.
15. Most hospitals do not have refrigeration capabilities greater than what is needed for normal day-to-day morgue operations.
16. Hospitals are not familiar with processing people for evidence or potential Coroner’s cases.
17. Most hospitals lack individuals trained in decedent affairs.

Table 2-1 provides the estimated total number of fatalities by county based on HAZUS analysis.

Table 2-1. Fatalities in the San Francisco Bay Area after the scenario event, by county.

County	Immediate Fatalities	Delayed ¹ Fatalities	Total Fatalities
Alameda	1,400	100	1,500
Contra Costa	200	10	210
Marin	100	10	110
Monterey	20	0	20
Napa	40	5	45
San Benito	5	0	5
San Francisco	2,100	100	2,200
San Mateo	900	50	950
Santa Clara	1,600	100	1,700
Santa Cruz	40	5	45
Solano	40	5	45
Sonoma	200	10	210
Regional Totals	6,645	395	7,040

Source: URS HAZUS analysis (2009)

¹ The delayed fatalities projections are based on a general medical industry “rule of thumb” estimation that approximately 10 percent of Severity 3 injuries will result in delayed fatalities due to the lack of access to immediate hospitalization and medical treatment. HAZUS defines Severity 3 injuries as those that will require hospitalization and can become life threatening if not promptly treated.

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3 Roles and Responsibilities

This section describes the responsibilities of local, Operational Area, State, and Federal agencies that have a role in mass fatality operations in response to the scenario event.

Figure 3-1 is an organization chart of the Monterey County Coroner's Office.

3.1 Operational Area Level

This information is consistent with the roles and responsibilities identified in the Monterey County EOP, the EOC SOP document, and the Monterey County Coroner's Office Mass Fatality Response Plan.

3.1.1 Local Governments

The roles and responsibilities of Monterey County local governments in response to the mass fatality scenario event are to:

- Use the Incident Command System (ICS) at the field level of an incident
- Assess the situation and provide information from the field level resources to the Monterey County EOC regarding victim location and associated hazards for recovery operations
- Coordinate with the Monterey County EOC Coroner's Branch on the direction of the mass fatality operations within their respective jurisdictions
- Ensure that locations where fatalities are discovered are secured.
- Coordinate with the Monterey EOC on available local government resources for mass fatality operations
- To the extent possible, assist the Monterey County Coroner's Office in the identification, care, storage of human remains, determination of the cause and manner of death, collection and storage of personal property and the effects of the deceased, notification of the legal next of kin and the identification and of temporary facilities and site for mass fatality operations
- Secure necessary local, State, and Federal authorities, regulations, and requirements to carry out mass fatality operations within the local jurisdiction
- Participate on Monterey County EOC Coroner's Branch conference calls and share information with local governments and field operations

3.1.2 Monterey Operational Area

The Monterey Operational Area is the umbrella entity that provides support to and coordination of emergency operations in Monterey County. The roles and responsibilities of the Monterey Operational Area in mass fatality are to:

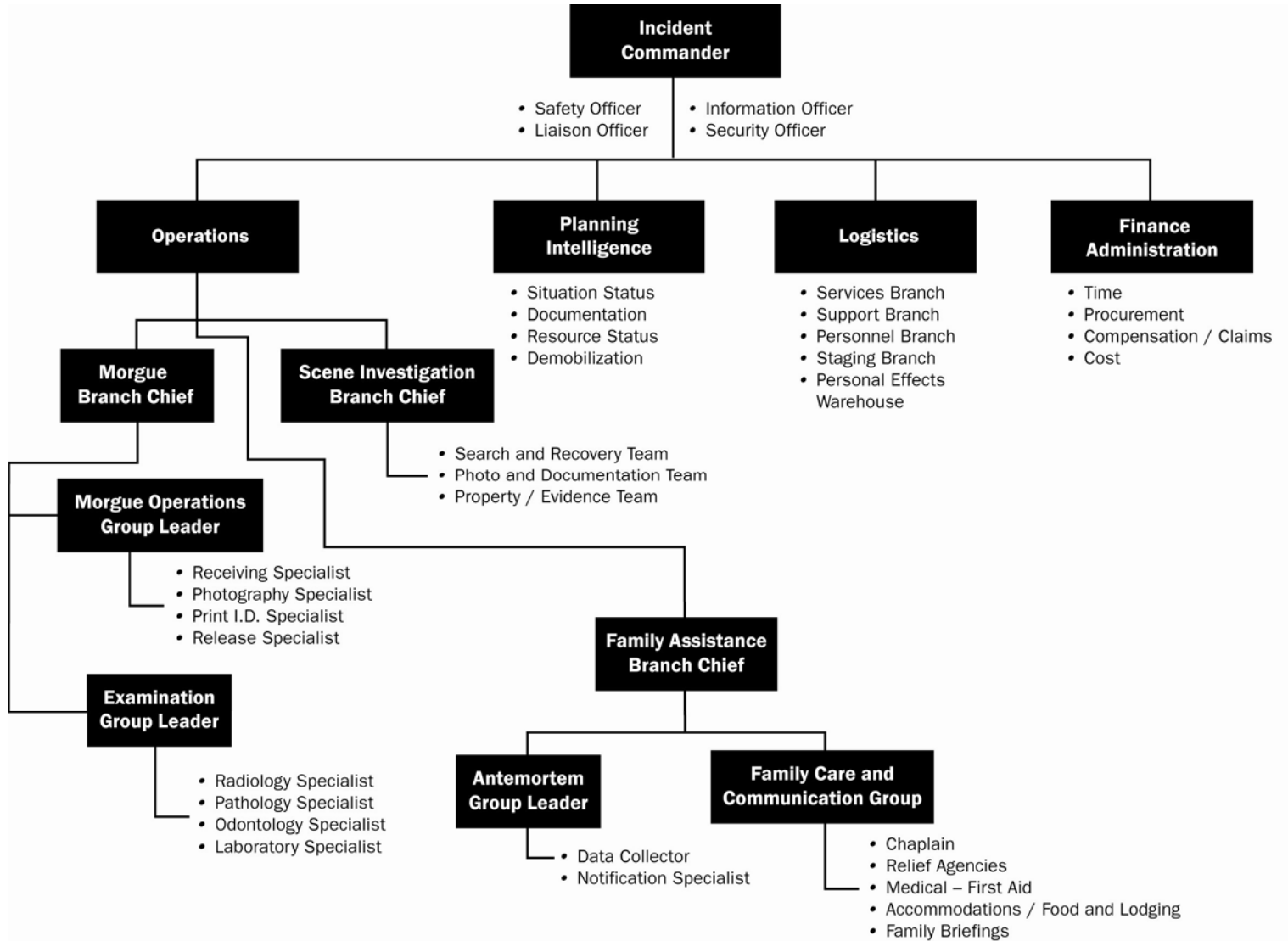


Figure 3-1. Organization of the Monterey County Coroner's Office.

- Maintain situational awareness in the Operational Area by verifying and aggregating initial reports from local governments and field-level resources, Department Operations Centers (DOCs), and the REOC and provide this information to the local governments
- Fill in resource requests from the local governments in the Operational Area by providing county resources, brokering the provision of mutual aid assistance from other jurisdictions in the Monterey Operational Area, and/or requesting resources from the REOC
- Identify and coordinate sites or facilities for temporary storage of human remains
- Identify and coordinate sites for Family Assistance Centers (FACs)
- Disseminate countywide public information related to mass fatality to the local media and community
- Participate in REOC Coroner/Medical Examiner conference calls and share information with local governments

Table 3-1 lists agencies with a role in managing the local response to the event, including roles and responsibilities in allocating local resources.

3.2 Regional Level

Table 3-2 lists agencies with a role in managing regional coordination for the earthquake, including roles and responsibilities in allocating resources.

3.3 State Level

Table 3-3 lists State agencies with a role in managing the State and regional response to the event and their roles and responsibilities in allocating State and regional resources.

3.4 Federal Level

Table 3-4 lists Federal agencies with a role in managing the Federal response to the event and their roles and responsibilities in allocating Federal resources.

3.5 Private-Sector Entities and Nongovernmental Organizations

Table 3-5 lists various private-sector entities and NGOs that play significant roles in the planning and response to the event.

Table 3-1. Operational Area agencies with mass fatality responsibilities.

Local Agencies	Responsibilities
Monterey County Sheriff Coroner Division	Assume responsibility for all fatalities that occur as a result of the earthquake in the Operational Area, as follows: <ul style="list-style-type: none"> • Identify human remains • Provide adequate storage • Determine the cause and manner of death • Inventory and protect personal effects found on the decedent • Notify the next of kin • Provide Family Assistance/Victim Identification Center • Release remains • Identify, prioritize, and request resources needed to process remains • Oversee morgue operations • Count and track information regarding the deceased • Implement procedures required by the public health department • Coordinate with search and rescue teams, hospitals, and the death care industry • Coordinate information with the American Red Cross regarding fatalities
Monterey County Health and Human Services	<ul style="list-style-type: none"> • Set up and manage the delivery of services at the FAC as directed by the Coroner • Provide staff support functions at the incident morgue • Provide mental health professionals • Facilitate the exchange of information to meet the needs of the families of the deceased • Provide a badge system for authorized personnel and family members of the deceased • Provide family escorts, hotline, interpretation and translation, childcare, coordination of therapy dogs, supervision of dining areas, and public affairs. • Help plan memorial services
Monterey County Office of Emergency Services	<ul style="list-style-type: none"> • Activate and manage the county/Operational Area EOC • Coordinate EOC response and recovery operations • Identify and provide local equipment supplies, transportation, personnel, and other support as required • Identify shortfalls in local capacity • Request State and Federal resources, when applicable • Coordinate with surrounding counties and the Region II Coordinator for sharing of available resources

Table 3-1. Operational Area agencies with mass fatality responsibilities.

Local Agencies	Responsibilities
Law enforcement	<ul style="list-style-type: none"> • Secure all fatality management sites where remains are held or processed • Secure evidence gathered from remains • Coordinate security with CHP and the National Guard for transportation assets and staff • Establish primary and alternate evacuation and transportation routes • Provide escort for the transportation of human remains, when appropriate • Provide traffic control
Environmental health	<ul style="list-style-type: none"> • Contain contaminated water run off • Provide expertise on chemical agents • Supply personal protective equipment
County Chief Administrative Officer/ Board of Supervisors	<ul style="list-style-type: none"> • Provide overall command and control of local emergency response • Declare and file State of Emergency to the Governor
Fire & Rescue Hazardous Materials (CAL FIRE and county/local Fire departments)	<ul style="list-style-type: none"> • Assist with emergency services at disaster scene, fatality collection points, and incident morgue • Provide hazardous materials consultation • Assist with search and recovery • Conduct gross decontamination
Natividad Medical Center and local hospitals	<ul style="list-style-type: none"> • Notify public health on the number and types of patients that require fatality management • Implement mass fatality plan • Identify means to expand surge capacity • Notify Monterey County OES when storage capacity has been exceeded • Coordinate with Vital Records to have a sub-registrar assigned to hospitals
Mental health	<ul style="list-style-type: none"> • Provide counselors at FAC(s) for the families of the decedents' and for response personnel • Help write Joint Information Center messages to address stress management in the community
Public health	<ul style="list-style-type: none"> • Provide technical guidance to prevent the spread of illness • Coordinate information regarding expected deaths, resource allocation, and surveillance • Provide information on infection control measures • Monitor and mitigates environmental health impacts • Assist with FAC operations

Table 3-1. Operational Area agencies with mass fatality responsibilities.

Local Agencies	Responsibilities
Public Administrator	Assume responsibility for decedent affairs when there are assets to be disbursed and: <ul style="list-style-type: none"> • No next of kin are known or come forward • Next of kin reside outside the United States or decline to act for the decedent • Assets are “subject to loss, injury, waste, or misappropriation...” (California Probate Code §7601(a)) • The appointed administrator or executor fails to act (properly).
Death care industry (funeral homes, crematoriums, and cemeteries)	Assist with morgue operations including: <ul style="list-style-type: none"> • Transcription of case file data • Collection of antemortem data • Tracking human remains • Staffing FACs • Discussion of final disposition options • Final disposition as directed by the next of kin
Body removal service	<ul style="list-style-type: none"> • Remove remains from scene as directed by the Coroner/Medical Examiner • Transport remains to the location designated by the Coroner/Medical Examiner • Contract with hospitals and private citizens needing services, as appropriate

CAL FIRE = California Department of Forestry and Fire Protection
 CHP = California Highway Patrol
 EOC = Emergency Operations Center
 FAC = Family Assistance Center
 OES = Office of Emergency Services

Table 3-2. Regional agencies with mass fatality responsibilities.

Regional Agencies	Responsibilities
Region II Coroner/Medical Examiner Mutual Aid Coordinator	<ul style="list-style-type: none"> • Support Operational Area Coroner/Medical Examiner Mutual Aid Coordinators by filling or forwarding resource requests • Allocate unassigned resources deployed to the region • Provide status of resource requests and allocations to the REOC Coroner/Medical Examiner Unit Leader
REOC Coroner/Medical Examiner Unit Leader	<ul style="list-style-type: none"> • Establish and maintaining communications with Coroner/Medical Examiner units at the Operational Areas, and with the Region II Coroner/Medical Examiner Mutual Aid Coordinator • Provide updates to the REOC Law Enforcement Branch Director about Coroner/Medical Examiner activities and issues within Region II • Track Coroner/Medical Examiner Mutual Aid resource requests and provide updates to the REOC Law Enforcement Branch Director • Coordinate the provision of non-law-enforcement resources in response to requests received through the Coroner/Medical Examiner Mutual Aid System • Elevate resource requests to the SOC, when appropriate, in coordination with the REOC Law Enforcement Branch Director.

Table 3-3. State agencies with mass fatality responsibilities.

State Agencies	Responsibilities
California Emergency Management Agency	<ul style="list-style-type: none"> • Serve as the lead State agency for emergency management response • Ensure the State is ready and able to mitigate against, prepare for, respond to, and recover from the effects of emergencies that threaten lives, property, and the environment • Mobilize State resources, obtain Federal resources while maintaining oversight of the Mutual Aid System • Coordinate integration of Federal resources into response and recovery operations
California Emergency Management Agency - Law Enforcement Branch, Coroners' Mutual Aid Special Operations Unit	<ul style="list-style-type: none"> • Provide logistical support to ESF #8 • State facilitator of inter-regional Coroner/Medical Examiner mutual aid response resource to operational areas • Custodian of the Coroners' Mutual Aid Plan • Coordinate State Law Enforcement, Search and Rescue and Coroner Mutual Aid Systems • Point-of-contact for the coordination of inter-regional Coroner mutual aid, state agency resources mutual aid application, and out-of-state resources coordination • Liaison to private organizations
California Department of Public Health	<ul style="list-style-type: none"> • Assist the Coroner/Medical Examiner in the notification of spouse or next of kin through the State Registrar • Assess health hazards and ensure compliance with health regulations • Provide emergency supplies of death certificates and permits for final disposition, and training in their use
California Department of Justice	<p>Missing/Unidentified Persons Section:</p> <ul style="list-style-type: none"> • Assist California law enforcement agencies and official emergency services agencies in the physical or dental identification of missing or unidentified deceased persons through the comparison and matching of reports and records. • Provide expertise in the operation of the National Crime Information Center's Missing and Unidentified Persons System. <hr/> <p>Bureau of Forensic Services</p> <ul style="list-style-type: none"> • Scientific arm of the Attorney General's Office • Maintains 10 full-service crime laboratories in California <p>Services include:</p> <ul style="list-style-type: none"> • On-scene crime investigation support • Crime scene specialist can assist in the collection and analysis of forensic evidence and human remains • Crime laboratory analysis applied to collected evidence • Search crime scene and evidence for latent prints • Examine and compare questioned handwriting and printing on documents • Provide report of findings and disposition of evidence, and offers expert testimony in court

Table 3-3. State agencies with mass fatality responsibilities.

State Agencies	Responsibilities
California Department of Justice (cont.)	<p>DNA Laboratory</p> <ul style="list-style-type: none"> • Provide expertise in the analysis of degraded human remains • Provide expertise in the statistical analysis of putative family relationships • Investigate missing and unidentified persons through DNA analysis and data comparisons • Collect, document and submit biological samples of unidentified remains and samples from family members or personal articles of a missing person for DNA analysis • Provide FAC staff and computerized mass fatality DNA sample submission tracking system • Provide media support to Coroner/Medical Examiner to address questions regarding DNA methods used to identify victims • Provide report of findings and disposition of evidence, and offers expert testimony in court
California Department of Motor Vehicles	<p>Assist in identification of deceased by providing photographs, thumb prints, and other identifying information captured in driver license records and vehicle/vessel records</p> <hr/> <p>DMV, Information Service Branch will provide the following services:</p> <ul style="list-style-type: none"> • Search for partial license plate number, partial VIN number, and vehicle makes, models, year • Search on name, partial name, sex, age, height, weight, color of hair, color of eyes, and county • Provide all names of individuals residing at a specific address • Cross reference driver's name, driver's license number or between a registered owner and a vehicle registration <hr/> <p>DMV, Registration Automation Development Section, will provide the following information:</p> <ul style="list-style-type: none"> • Vehicle description and information pertaining to a specific name or specific address <hr/> <p>DMV, Driver License Automation Development Section, will provide the following:</p> <ul style="list-style-type: none"> • Information regarding all inquiries, updates, requests, and responses from all journal tapes.
California Military Department/ California National Guard	<p>Requested through the Cal EMA and authorized by the Governor</p> <ul style="list-style-type: none"> • Provide personnel and equipment support to local authorities to collect, identify, transport and store the deceased • Assist with protection of life and property • Conduct search and rescue • Assist with general logistics

Table 3-3. State agencies with mass fatality responsibilities.

State Agencies	Responsibilities
California Department of General Services	<ul style="list-style-type: none"> • Assist in the procurement of needed facilities, materials, supplies, and equipment necessary to support mass fatality management operations. • Assist State agencies in the procurement of materials, supplies, and equipment, including any medical supplies needed in the areas affected by the emergency • Maintain list of State facilities and their potential uses to meet emergency requirements • Maintain list of qualified contractors and source equipment, other than heavy engineering contractors and equipment • Develop contingency contracts for procurement of services, materials, and supplies • Prepare facility plans in coordination with Cal EMA • Expedite review of contacts that pertain to emergency operations

Cal EMA = California Emergency Management Agency
 DMV = Department of Motor Vehicles
 ESF = Emergency Support Function
 FAC = Family Assistance Center

Table 3-4. Federal agencies with mass fatality responsibilities.

Federal Agencies	Responsibilities
Agency for International Development, Office of Foreign Disaster Assistance	<ul style="list-style-type: none"> • Assists in the processing of deceased foreign nationals by contacting the deceased foreigner's family through the appropriate embassy.
Emergency Management Assistance Compact	<ul style="list-style-type: none"> • Administered by the National Emergency Management Association • Stipulates that licenses, certifications, and permits recognized by the assisting state will be recognized by the receiving state, subject to limitations and conditions prescribed by the governor's Executive Order • Member states will: <ul style="list-style-type: none"> – Develop an emergency plan and procedures for managing and provisioning assistance – Protect and ensure uninterrupted delivery of services; medicines; water; food; energy and fuel; search and rescue; and critical lifeline equipment, services, and resources – Inventory and set procedures for interstate loan and delivery of human and material resources, including procedures for reimbursement or forgiveness
Environmental Protection Agency	<ul style="list-style-type: none"> • Provides technical assistance and environmental information • Performs environmental assessments when processing chemically contaminated remains
International Critical Incident Stress Foundation, Inc.	<ul style="list-style-type: none"> • Provides Critical Incident Stress consultation to first responders on scene and post deployment
Interpol	<ul style="list-style-type: none"> • Identifies victims and their loved ones around the world
National Transportation Safety Board's Office of Transportation Disaster Assistance	<ul style="list-style-type: none"> • Integrates Federal resources with those of local and state authorities and airlines to meet the needs of aviation disaster victims and their families • Provides family/victim support coordination, FACs, forensic services communication with foreign governments, and interagency coordination between communities and commercial carriers
Salvation Army	<ul style="list-style-type: none"> • Aids emergency response workers and those most directly affected by the incident
U.S. Department of Defense	<ul style="list-style-type: none"> • Provides technical assistance teams to assist with the following: <ul style="list-style-type: none"> – Assistance for human remains processing, including identification – Information regarding chemical agents and their associated risks – Hazardous materials expertise and agent detection and identification – Non-refrigeration transportation assets <p>Office of the Armed Forces Medical Examiner</p> <ul style="list-style-type: none"> • Serves the Army, Navy, and Air Force <p>Joint Task Force-Civil Support</p> <ul style="list-style-type: none"> • Supports consequence management response efforts

Table 3-4. Federal agencies with mass fatality responsibilities.

Federal Agencies	Responsibilities
U.S. Department of Defense (cont.)	54th Quartermaster Company, 246th and the 311th <ul style="list-style-type: none"> • Performs fatality management operations when requested
U.S. Department of Health and Human Services	<ul style="list-style-type: none"> • Serves as Federal ESF #8 lead with oversight of all Federal ESF #8 activities • Deploys ESF #8 personnel appropriate to the response requirements, which may include Regional Emergency Coordinators, subject matter experts, Incident Response Coordination Teams, and DMORTs to support ESF #8 requests and missions • Requests ESF #8 partners to activate and deploy health and medical personnel, equipment, and supplies in response to requests for Federal public health and medical equipment • Coordinates with primary and supporting departments, agencies, and governments throughout the incident, including sending Liaison Officers, when appropriate
	National Disaster Medical System (NDMS): <ul style="list-style-type: none"> • Provides medical mutual-aid resources • Disaster Mortuary Operational Response Team (DMORT) • Operates Regional Incident Morgue(s) and/or supports County Coroner/Medical Examiner Morgue operations • Assists in the organization and operation of the FAC • Capable of decontaminating chemically contaminated remains and monitoring the remains' level of contamination
	<ul style="list-style-type: none"> • Disaster Medical Assistance Teams (DMAT): Provide the triage of patients, providing high-quality medical care despite the adverse and austere environment often found at a disaster site; patient reception at staging facilities; and preparing patients for evacuation • Can support the Sheriff-Coroner by evaluating Sheriff-Coroner personnel who enter and exit a disaster site • Can assist Sheriff-Coroner in preparing for decontaminating chemically contaminated remains by providing decontamination equipment and consultation
	Centers for Disease Control and Prevention: <ul style="list-style-type: none"> • Diagnoses biological agents • Provides bio-safety and infection control information in cases involving biologically contaminated remains • Provides laboratory support for evidence analysis

Table 3-4. Federal agencies with mass fatality responsibilities.

Federal Agencies	Responsibilities
U.S. Department of Homeland Security	<ul style="list-style-type: none"> • Implements the National Response Framework • Serves as lead agency for consequence management of mass fatality event
	<p>Federal Emergency Management Agency:</p> <ul style="list-style-type: none"> • Coordinates Presidential Disaster Declaration • Provides Pre-Disaster Damage Assessment Team assistance through the SOC • Mobilizes Federal resources to the disaster area <hr/> <p>Urban Search & Rescue Response System:</p> <ul style="list-style-type: none"> • Supports recovery of the deceased • Identifies environmental hazards • Identifies probable locations of remains • Provides support during the recovery of remains and consultation regarding probable locations of remains <hr/> <p>Nuclear Incident Support Teams, Nuclear Emergency Search Teams, and Radiological Emergency Response Team:</p> <ul style="list-style-type: none"> • Provide advice and assistance in handling and disposing of radiologically contaminated remains
U.S. Department of Justice, Office of Justice Programs, Office for Victim Assistance	<ul style="list-style-type: none"> • Coordinates assistance to victims of terrorism, criminal aviation disasters, and other mass casualty Federal crimes on behalf of the FBI.
U.S. Department of Transportation	<ul style="list-style-type: none"> • Arranges for transportation including air, rail, marine, and motor vehicle • Provides refrigerated transportation assets to be used as temporary storage units.
U.S. Department of Veteran Affairs	<ul style="list-style-type: none"> • Assists in managing human remains, including victim identification and disposition • Provides small contingent of non-mortuary affairs assets such as dentists and radiologists • Potential use of Veterans Affairs cemeteries • Assistance in preparing new areas as cemeteries

DMAT = Disaster Medical Assistance Teams
 DMORT = Disaster Mortuary Operational Response Team
 ESF = Emergency Support Function
 FAC = Family Assistance Center
 FBI = Federal Bureau of Investigation
 NDMS = National Disaster Medical System
 SOC = State Operations Center

Table 3-5. Private-sector and nongovernmental agencies with mass fatality responsibilities.

Private-Sector Entities	Responsibilities
American Red Cross	<ul style="list-style-type: none"> • Sets up and manages the delivery of services at the FAC as directed by the Sheriff-Coroner • Provides staff support functions at the incident morgue • Provides mental health professionals • Facilitates the exchange of information to meet the deceased families' needs • Provides badge system for authorized personnel and family members of the deceased • Provides additional services such as family escorts, hotline, interpretation and translation, childcare, coordination of therapy dogs, supervision of dining areas, and public affairs. • Assists with the planning of memorial services
California State Coroners' Association	<ul style="list-style-type: none"> • Coordinates with law enforcement and the California Emergency Management Agency (Cal EMA) Law Enforcement Branch • Activates and facilitates operations of the Coroners' Mutual Aid Plan • Assists in information exchange, provide expertise, training and disaster preparation
California Dental Identification Team (CalDIT)	<ul style="list-style-type: none"> • Conducts dental identification of deceased persons who cannot be identified by other means. • Serves at the pleasure of the Sheriff-Coroner and support the forensic odontologist that serves the area
California Funeral Directors Association (CFDA)	<ul style="list-style-type: none"> • Facilitates and provides local embalmers and funeral directors to local, State, and Federal agencies for human remains recovery, transportation, and preservation of human remains, support at Family Assistance Centers and final disposition or repatriation through Cal EMA
California Law Enforcement Chaplains Association (CLECA)	<ul style="list-style-type: none"> • Expedites the coordinated response of trained law enforcement chaplains during times of major disasters and/or time of need • Partnership with the International Conference of Police Chaplains (ICPC)
California State Sheriffs' Association (CSSA)	<ul style="list-style-type: none"> • Provides a liaison to Cal EMA and the California State Coroner's Association.
Death Care Industry (funeral homes, crematoriums, and cemeteries)	<ul style="list-style-type: none"> • Assists with morgue operations including: <ul style="list-style-type: none"> – Transcribes case file data – Collects antemortem data – Discusses final disposition options – Provides human remains tracking – Staffs FAC

Table 3-5. Private-sector and nongovernmental agencies with mass fatality responsibilities.

Private-Sector Entities	Responsibilities
Healthcare Facilities (hospitals, nursing homes, assisted living, etc.)	<ul style="list-style-type: none"> • Notifies Sheriff-Coroner on the number of fatalities being temporarily stored at the facility • Expands human remains storage capacity to accommodate the increase surge of fatalities • Notifies the Operational Area EOC or appropriate DOC when human remains storage capacity has been exceeded • Coordinates with Vital Records to have a sub-registrar assigned to hospitals
Human Remains Removal Service	<ul style="list-style-type: none"> • Removes remains from scene as directed by the Sheriff-Coroner • Transports remains to the location designated by the Sheriff-Coroner • Hospitals and private citizens may also contract to receive services
Salvation Army	<ul style="list-style-type: none"> • Assists in the delivery of services at the family assistance center (FAC) as directed by the Sheriff-Coroner • Provides personnel to support FAC operations • Provides food services

CalDIT = California Dental Identification Team
 Cal EMA = California Emergency Management Agency
 CFDA = California Funeral Directors Association
 CLECA = California Law Enforcement Chaplains Association
 CSSA = California State Sheriffs' Association
 DOC = Department Operations Center
 EOC = Emergency Operations Center
 FAC = Family Assistance Center
 ICPC = International Conference of Police Chaplains

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4 Coordination and Communication

The communications and coordination section of this Plan describes the overall approach to mass fatality management incident activation, incident coordination and information collection.

4.1 Incident Management

This section provides the framework for the direction, control, and coordination of all mass fatality activities in Monterey County, including the operational control of mass fatality management assets.

4.1.1 Command and Control

This section identifies command of mass fatality assets at the field level within Monterey County.

Field-level response is divided into three operational teams in the Monterey County Coroner's Office: the Scene Investigation Group, the Temporary Morgue Group, and the Family Assistance Group. These teams operate under a Field Coroner Unit Coordinator (CUC), who reports to the Coroner Officer in Charge (OIC).

The Field CUC has the following responsibilities:

- Report to the incident scene and obtain a briefing from the Operations Section Chief.
- Establish and maintain a communications link with the Coroner OIC/EOC CUC and obtain an initial situation report, identify staff to be deployed to the field, and obtain any special instructions.
- Confer with the Law Enforcement and Fire & Rescue Coordinators as necessary to update the original situation report obtained from the Coroner OIC on the number and location(s) of fatalities, the need for extrication, and any other special needs or considerations.
- Identify any special resources required for search and recovery, transfer, identification and/or examination, and the need for a temporary morgue, and advise the Coroner OIC.
- Assign available Coroner personnel to perform specific functions, and provide any special instructions, as warranted.
- Oversee and coordinate field activities with Law Enforcement and Fire & Rescue personnel.
- Request mass fatality management resources through the on-scene Logistics Section, as necessary.

- Monitor assigned staff for signs of fatigue and/or stress and advise the Coroner OIC of any need for relief staff.
- Adjust on-scene staffing and organization as appropriate for the current situation, staffing, and incident needs. Keep the Operations Section Chief and/or Coroner OIC apprised of any anticipated or potential problems that may require action.
- Provide the Operations Section Chief and Coroner OIC with regular status reports, including a list of all remains recovered, with disposition and any requests for assistance.

4.1.1.1 Scene Investigation Group

The role of the Scene Investigation Group is to search for, document, recover, and transfer remains, tissue, property and evidence from the incident site to a fatality collection point or temporary morgue. Depending on the size and complexity of the incident site, the number of fatalities and the availability of Coroner field personnel, this group may be divided into two smaller groups — Search & Recovery and Transfer. Personnel assigned to the Scene Investigation Group or function will be supervised by a designated Group Lead or the Field CUC and are responsible for the following:

- Obtain a briefing from the Field CUC
- Coordinate with on-scene Law Enforcement and Fire & Rescue personnel to establish a grid system for search and recovery, if indicated
- Request assistance from Fire & Rescue personnel to access and recover remains from any unstable or hazardous location
- For hazardous materials incidents, confer with the Fire & Rescue Branch Coordinator to identify any special body-handling procedures required to avoid contamination
- Photograph and/or document the locations where remains, tissue, property, and other evidence are found
- Apply a number using a pre-designated numbering system to the individual remains and property and ensure that the appropriate number is securely affixed to the remains, is easy to see, and is outside the property/evidence collection bags
- Properly package, remove and transport remains, tissue, property, and evidence from the incident scene to the designated morgue
- Provide the Field CUC with regular status reports on an agreed-upon schedule
- Compile a list of all remains, tissue, property, and evidence recovered, including locations, descriptions, and disposition, and provide a copy of the list to the Morgue Group Leader and the Field CUC

4.1.1.2 Temporary Morgue Group

When responding to mass fatality incidents, it is often more efficient and effective to centralize the postmortem examination process in one temporary location rather than dispersing remains and property among multiple facilities. This approach brings the various experts needed to make positive identifications together in one location and allows for maximum leveraging of available support staff. Personnel assigned to the Temporary Morgue Group will be coordinated and supervised by a designated Group Lead.

Depending on the number of fatalities, condition of the remains, capacity and adequacy of the morgue facilities, and the availability of instruments and the specially trained and licensed personnel needed to conduct postmortem examinations, this group is likely to operate for an extended period (days or weeks) and may be divided into Morgue Operations and Examination.

The role of the Temporary Morgue Group is to oversee and manage a comprehensive system for processing and examining human remains, tissue, personal effects, and evidence, from intake to final release. The role also includes identifying the remains and tissue sources, tracking and maintaining a secure chain of custody, ensuring the preservation and confidentiality of all documentation, arranging for and scheduling specialty and support personnel, and arranging for logistical support.

The specialty staff who may be assigned to perform examinations includes:

- Radiologist
- An anthropologist to determine whether remains are human and, if so, to determine gender, race, and age
- A pathologist to determine cause of death; identify injuries, scar marks, tattoos, and medical appurtenances; and collect tissue and fluid for tests
- An odontologist to examine postmortem dental X-rays for comparison to antemortem dental records
- A laboratory specialist to collect, package, and document postmortem DNA material for comparison to antemortem DNA information

The Group Lead of the Temporary Morgue Group has the following responsibilities:

- Obtain a briefing on the situation from the Coroner OIC/EOC CUC and identify potential temporary morgue sites and an existing database for compiling and reporting data on each victim
- Confer with the Field CUC to determine the number of fatalities and condition of the remains; and identify the need for special staffing (e.g., Fingerprint Specialist, Forensic Anthropologist), laboratory services (e.g., DNA testing), and/or equipment and supplies (e.g., refrigerated trucks, body bags, autopsy instruments)
- Arrange for an appropriate temporary morgue site

- Report to the holding morgue/fatality collection point and identify Collection/ Holding, Viewing, and Examination Areas within the site
- Assign available staff to perform support roles in one or more of the morgue stations, including establishing and maintaining a victim database, and designate one person in each area as the coordinator
- Provide separate initial and daily briefings for the support staff and specialty personnel/professional staff

4.1.1.3 Family Assistance Group

The Family Assistance Group oversees, coordinates, and facilitates the gathering of victim antemortem data; the group also provides the family and friends of victims with information about the incident and makes death notification when a positive identification has been made. When warranted by the number of fatalities and the availability of trained staff, the Family Assistance Group may be divided into Antemortem Data and Family Care & Communications. In addition to personnel from the Coroner Division and involved external agencies (e.g., airlines, rail carriers), personnel assigned to the Family Assistance Group may include:

- Chaplains to coordinate and facilitate the use of local religious councils and police department chaplains to provide emotional and spiritual support to the families and friends of victims
- Relief agency specialists to coordinate the provision of lodging, meals, and transportation by local relief agencies
- Medical/first-aid specialists to coordinate medical and first-aid care for the families and friends of victims
- Family briefing specialists to compile information about support services available from all involved agencies and individuals and to provide the information to families and friends of victims. When the Monterey County Operational Area EOC is activated, the Logistics Section may be asked to arrange for and set up an FAC.

The Family Assistance Group is supervised by a designated Group Lead who has the following responsibilities:

- Arrange for a site for the FAC and set it up
- Interview the family and friends of victims to obtain antemortem information for identification purposes
- Coordinate and facilitate the use of local police department chaplains, religious councils and organizations, and relief agencies to assist with supporting and counseling family members
- Conduct individual and/or group information briefings for victims' family members. (All information released concerning the fatalities should be cleared

with the incident Public Information Officer (PIO) and approved by the Coroner OIC/EOC CUC.)

- Provide up-to-date, accurate, and timely information concerning the event.
- Prepare family members to view remains and personal effects to assist with identification.
- Coordinate with the American Red Cross for lodging, meals, local transportation, childcare, spiritual and crisis counseling, and other personal needs of victims' families.
- Notify legal next of kin once positive identification has been made.

4.1.2 Monterey Operational Area EOC

The Monterey Operational Area EOC is the only EOC in the county that is activated in a catastrophic disaster, and all supporting functions for mass fatality operations are coordinated at that facility. The activation is consistent with the EMP and the severity of the event. Operations of the EOC are as follows:

- Mass fatality operations are conducted mainly from the Coroner/Fatality Branch of the Operations Section Law Enforcement Branch.
- The Monterey Operational Area EOC Coroner/Fatality Branch is instrumental in management and allocation of mass fatality resources and is responsible for coordinating mass fatality operations.
- The Law Branch coordinates the tracking of missing person reports, security of the mass fatality sites and collection facilities, assistance for next of kin notifications, and search and recovery resources.
- The Medical/Health Branch supports mass fatality operations by providing information on resource and surge capabilities, infectious disease control procedures, and implementation of Altered Standards of Death Care.
- The Hazardous Materials Group is responsible for coordinating hazardous material resources and has representatives from Environmental Health and the Fire Department.
- The Transportation Unit supports the Support Branch and coordinates the allocation of mass fatality transportation resources for the Monterey Operational Area.
- The Supply Unit supports the mass fatality logistics in the Support Branch with the management and acquisition of supplies.
- The Facilities Unit supports the Support Branch of the Logistics Section and establishes facilities required to support mass fatality operations including Family Assistance Centers.

Key EOC mass fatality roles are described in **Section 3.1.1.**

4.1.2.1 Operational Area Law Enforcement Mutual Aid Coordinator

The Operational Area Law Enforcement Mutual Aid Coordinator is responsible for:

- Coordinating the provision of law enforcement mutual aid within the Operational Area
- Coordinating the acquisition of resources through the Region II Law Enforcement Mutual Aid Coordinator when resources are needed from State and/or Federal agencies, or from outside the Operational Area (see **Appendix B, Map B-7**)
- Coordinating the provision of non-law-enforcement resources with the Operational Area EOC

4.1.2.2 Law Enforcement Branch Coordinator

The Operational Area Law Enforcement Branch Coordinator is responsible for:

- Establishing and maintaining communications with law enforcement branches at local EOCs and the REOC
- Coordinating and tracking the use and availability of local jurisdiction and field law enforcement resources from the Operational Area EOC
- Receiving requests for non-law-enforcement resources from the Operational Area Law Enforcement Mutual Aid Coordinator and transmitting those requests to the appropriate Operational Area EOC personnel

4.1.2.3 Operational Area Coroner Mutual Aid Coordinator

The Operational Area Coroner Mutual Aid Coordinator is responsible for:

- Coordinating the provision of Coroner resources within the Operational Area
- Coordinating the acquisition of the resources through the Region II Coroner/Medical Examiner Mutual Aid Coordinator if resources are needed from outside the Operational Area
- Coordinating the provision of non-Coroner resources with the Operational Area EOC

4.1.2.4 Operational Area EOC Coroner/Fatalities Management Group Supervisor

The Operational Area EOC Coroner Unit Leader is responsible for:

- Coordinating and tracking the use and availability of Coroner resources within the Operational Area
- Transmitting requests for Coroner resources to the Operational Area Coroner Mutual Aid Coordinator
- Transmitting requests for non-Coroner resources to the appropriate Operational Area EOC position

- Providing briefings on Operational Area Coroner activities to the Law Enforcement Branch Coordinator
- Maintaining contact with the REOC Coroner Unit Leader, if activated; if not activated, maintaining communications through the Law Enforcement Branch coordinators at each respective SEMS level.

4.1.3 DOCs

Natividad Medical Center may activate its Hospital Command Center (HCC) under the Hospital Incident Command (HICS) system and initiate the MFI Management Plan depending on the magnitude of the mass fatality incident. The HCC reports to the Operational Area EOC consistent with EMP guidance and State reporting mandates.

4.1.3.1 Mass Fatality Incident Management Unit

A Mass Fatality Incident (MFI) Unit is established under the HICS Operations Section Medical Care Branch, and the MFI Unit Leader reports to the Medical Care Branch Director. The functions of the MFI Unit include identifying decedents, notifying next of kin, coordinating with the Monterey County Coroner's Office or mortuary notification, tracking decedents who die in the health-care facility to disposition out of the health-care facility, and managing morgue capacity and morgue surge capacity. MFI management requires county-wide or regional coordination through the county EOC.

4.1.4 Information, Resource Request, and Report Flow

In this section, coordination among the cities and Operational Area EOC and coordination with the REOC are discussed.

4.1.4.1 Coordination among EOCs

In accordance with SEMS, cities communicate and coordinate activities and requests for resources through the Operational Area EOC. In Monterey County, the Operational Area EOC acts as the sole EOC in the County. All coordination and prioritization takes place at the Operational Area EOC and any DOCs (or HCC) that may become operational report to the Operational Area EOC.

During an emergency, coordination within the Operational Area for purposes of addressing mass fatality requirements includes:

- Activating the Operational Area EOC and Operational Area EMP
- Coordinating the overall emergency response within the Operational Area, including establishing mass fatality priorities
- Establishing and maintaining communication with the Region II Coroner/ Medical Examiner Mutual Aid Coordinator, the REOC, County DOCs, regional agencies, and nongovernmental organizations in the Operational Area

- Filling resource requests, including requests for mass fatality management assistance, among jurisdictions in the Operational Area and/or requesting mass fatality resources from Cal EMA via the Region II Coroner/Medical Examiner Mutual Aid Coordinator
- Maintaining situational awareness within the Operational Area by verifying and aggregating local government situation assessments, mass fatality status updates, and data from sources outside the Operational Area

4.1.4.2 Coordination with Cal EMA

The REOC establishes and maintains communication with the Law Enforcement Branch at each activated Operational Area EOC. The REOC Law Enforcement Branch Director reports to the REOC Operations Section Chief on law enforcement activities in each Operational Area and conveys resource needs and emerging issues. The REOC Law Enforcement Branch Director includes this information in a Branch Report (available in the Response Information Management System [RIMS]) that is updated and provided to the REOC Operations Section Chief.

In turn, the REOC Law Enforcement Branch Director conveys information about regional resource allocations, regional situational awareness, and other information as requested to the Operational Area EOC law enforcement branches.

Coordination with Operational Areas also occurs during Regional Coordination Group calls and briefing calls that involve affected Operational Areas.

4.1.4.3 Regional Coroner/Medical Examiner Conference Call

The REOC Law Enforcement Branch Director or REOC Coroner Unit Leader may convene a conference call to coordinate regional response requirements, problems, and solutions regarding Coroner/Medical Examiner mutual aid. In addition to the REOC Law Enforcement Branch Director and Coroner/Medical Examiner Unit Leader, the conference call may also include the Region II Coroner/Medical Examiner Mutual Aid Coordinator and County Coroner/Medical Examiner from affected Operational Areas. Additional agency representatives and subject matter experts may be included in the call, as needed. The conference call also may involve mutual aid coordinators and/or branch coordinators from other disciplines, as needed, to implement decisions related to the response activities. Procedures for the conference call are in the Regional Emergency Coordination Law Enforcement and Coroner/Medical Examiner Subsidiary Plan.

The objectives of a regional conference call are to:

- Develop consistent regional messages
- Determine how regional resources can be optimized to benefit the region

- Broker the provision of mutual aid resources from Operational Areas within the region
- Determine regional strategies in response to an event with mass fatalities

The REOC Law Enforcement Branch Director and/or REOC Coroner/Medical Examiner Unit Leader ensure that recommendations made by this group are consistent with overall regional response strategy as articulated in the REOC Incident Action Plan.

4.2 Information and Communication

Protocols have been established for existing State and Federal systems for communications between the Operational Areas; regional, State, and Federal agencies; and other organizations engaged in the response. Disruptions caused by the incident may make modifications to the protocols necessary. California has established essential communications support procedures between the Operational Area EOCs, the REOCs, the SOC, and other State agencies to provide the information links for elements of the California emergency organization. The communications infrastructure includes the use of the Response Information Management System, the Operational Area Satellite Information System, and the California portion of the National Warning System.

The existing systems are supplemented through the establishment of systems necessary to support incident-specific facilities such as the JFO and Federal staging areas. Through agreement with CAL EMA, FEMA defines requirements for the systems that are required at these sites and provides resources to establish them. After the Unified Coordination Group transfers operations to the JFO, communications links are established to allow implementation of State functions, such as communications with the Operational Areas, at that facility.

Details of the State and Federal emergency management communications systems are provided in the FEMA Catastrophic Incident Base Plan, Concept of Operations, Annex C, Operations, and the RECP Communications Subsidiary Plan.

4.2.1 Emergency Communication Systems

Within Operational Areas, any agency may use any communications method with any system and any frequency to notify any party of a state of distress. Distress messages from Operational Areas should first be directed to the REOC using any REOC communications systems, and then to other Operational Areas and city EOCs. Operational Areas that receive distress messages maintain communications with the distressed Operational Area on the same system until other communications methods have been established. An Operational Area that receives a distress message from a local jurisdiction relays that information to the REOC via any communications system other than that used to communicate with the distressed jurisdiction.

4.2.2 Public Information

During an emergency, Monterey County will disseminate information about the emergency to keep the public informed about what has happened and the actions of emergency response agencies, and to summarize the expected outcomes of the emergency actions.

Procedures for public information are fully described in the Monterey County EOP.

4.2.3 Intelligence and Information Sharing

“Intelligence” can be defined as information with value or critical information. To be useful to decision makers, information must be tailored to meet articulated requirements. To become intelligence, information must be collected, analyzed, vetted, and disseminated in a timely fashion. It should be provided to decision makers in a simple, understandable, and focused manner. Intelligence collection and analysis are among the most critical components of formulating an effective response to a catastrophic incident.

After a catastrophic earthquake, the degree to which key decision makers at all levels of government and within interagency structures are able to gain and maintain situational awareness on the scene determines, to a great degree, their ability to anticipate requirements and provide appropriate resources. Real-time situational awareness also facilitates timely and knowledgeable information sharing with elected and appointed officials, the media, and general public. It is also imperative that leaders at all levels of government and within the interagency structures not only have the same information but also focus on obtaining and maintaining situational awareness based on established priorities. See **Appendix C** for a table of critical information, sources of information, and agencies responsible for information collection.

5 Operations

This section describes Monterey County's overall approach to mass fatality operations. It defines Operational Area priorities and objectives, resources needed to support operations, operational details about how the response is conducted, guidance for long-term operations, and a projected timeline of actions and observed events that will occur after the earthquake.

5.1 Priorities and Objectives

The purpose of this section is to provide an operational plan for mass fatality operations for the 60 days after the scenario event. Accordingly, this section provides:

- Operational priorities for mass fatality operations
- Objectives that support those priorities
- Tasks to be completed to achieve these objectives

The objectives are described according to the general phases of the response. The phases are:

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

A comprehensive timeline in **Section 5.5** shows tasks and responsible agencies. The timeline also reflects other events that may be occurring during the response period that can affect the response in Monterey County.

5.1.1 E to E+72 Hours

Operational priorities:

- Determine the number of fatalities and identify the locations of the decedents
- Initiate recovery of human remains and personal effects

Response objectives:

- Establish an Incident Command System structure that will coordinate mass fatality operations and support movement of responders and resources into the area by integrating local, State, and Federal operations
- Establish interoperable emergency communications among public- and private-sector mass fatality response and death care entities involved in mass fatality operations
- Obtain situational awareness on earthquake impacts and the potential location(s) of mass fatalities and on fatality management facilities

- Identify mass fatality management resource requirements and capabilities
- Submit initial mass fatality management resource requests
- Coordinate and initiate dissemination of public information through the JIS
- Plan and coordinate mass fatality management operations with appropriate agencies
- Conduct scene evaluations at all mass fatality locations and establish field-level incident command structure
- Establish system for the recovery and processing of human remains
- Conduct the recovery of human remains and personal effects
- Establish system to transport human remains and personal effects to the Regional Incident Morgue, local morgue, or temporary storage site(s)

5.1.2 E+72 Hours to E+14 Days

Operational priorities:

- Recover accessible human remains and initiate recovery of hidden and/or destroyed remains
- Establish capabilities to effectively locate, secure, recover, track, transport, store, process, identify, and conduct final disposition of human remains
- Provide family assistance services

Response objectives:

- Recover human remains that are not hidden and/or fragmented
- Establish system to search and recover hidden and/or fragmented human remains
- Assess current mass fatality management capabilities and submit requests for additional resources
- Establish and operate Regional Incident Morgues
- Provide family assistance services
- Continue coordination and dissemination of public information through the JIS
- Establish system to transport human remains and personal effects to the Regional Incident Morgues
- Establish protocols for the release of human remains and personal affects
- Facilitate the release and final disposition of human remains
- Implement stress management and crisis intervention strategies for responders and friends and family of the deceased

5.1.3 E+14 Days to E+60 Days

Operational priorities:

- Recover accessible human remains and continue recovery of hidden and/or destroyed remains
- Facilitate final disposition of recovered human remains
- Document mass fatality operations

Response Objectives:

- Conduct a final assessment of the site(s) to ascertain whether any human remains are still present
- Continue coordination and dissemination of public information through the JIS
- Continue operation of the Regional Incident Morgues until the majority of human remains have been processed
- Continue operation of the FAC
- Continue facilitating the release and final disposition of human remains
- Continue to provide stress management and crisis intervention strategies for responders and friends and family of the deceased
- Plan for transition to long-term fatality management operations
- Demobilize unused resources

5.2 Resources for Mass Fatality Operations

This section describes the resources that are available within the Operational Area and resources that are potentially available from other agencies to support mass fatality management operations. Coroner resources are requested through the Coroner/Medical Examiner Mutual Aid System as shown in **Figure 5-1**.

5.2.1 Monterey County Resources

The process of identifying and requesting resources for mass fatality operations is outlined in the Monterey County Mass Fatality Response Plan. Specific County departments and their functions are in this document.

The following items are identified in the Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Capability Assessment and Strategic Plan, prepared for the Bay Area Urban Area Security Initiative, as the resources that each Operational Area should have as part of its mass fatality response inventory:

- Refrigerated bobtail transport vehicle
- Fifth-wheel trailer/toy hauler
- Body bags (medium heavy, universal large size)

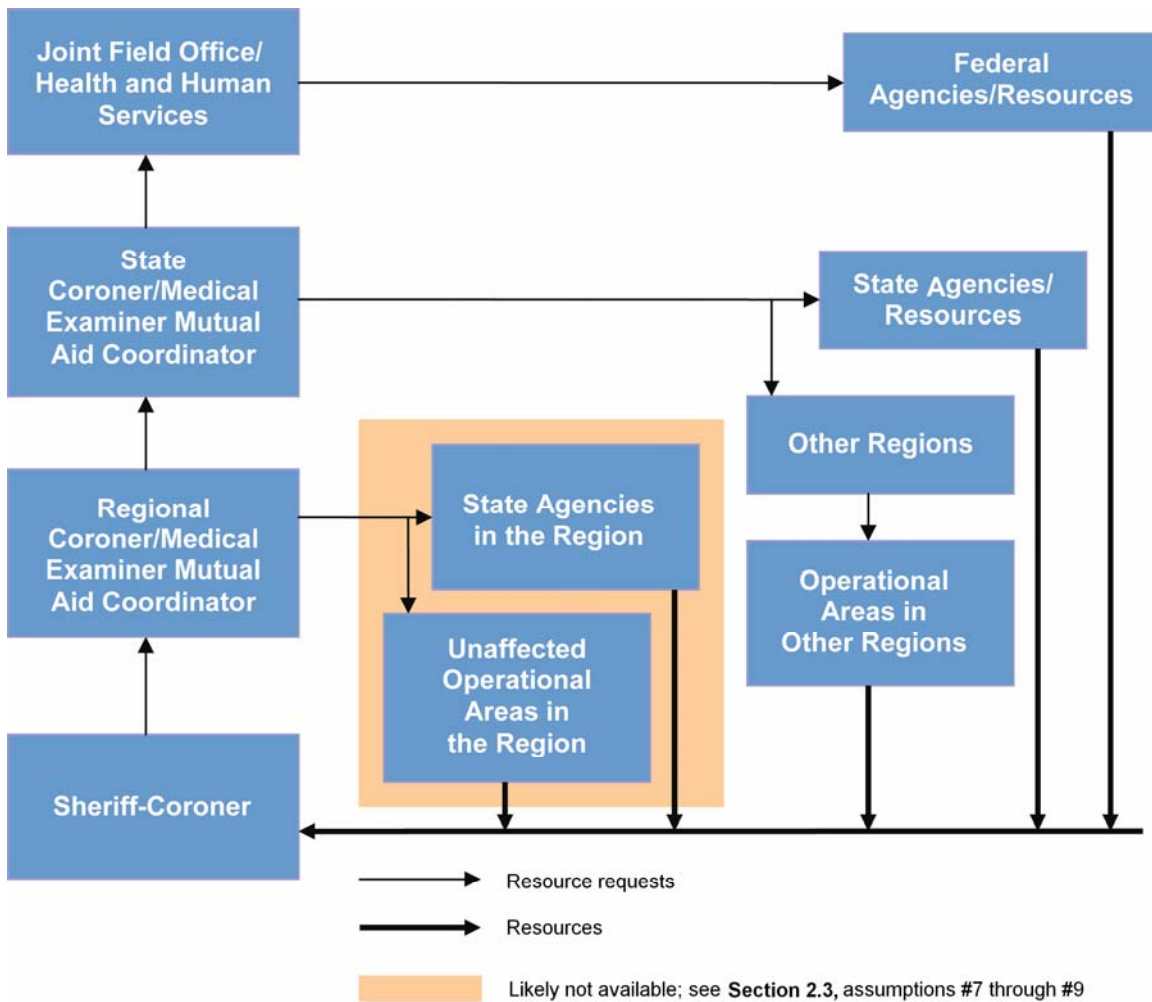


Figure 5-1. Coroner/Medical Examiner Mutual Aid resource request flow.

- Caches of personal protective equipment (PPE) (levels C and D) (100 people/cache)
- Litters (combination of collapsible, rigid, and single-wheeled)
- Small portable morgue refrigerated tent (60-person capacity)
- Large portable morgue refrigerated tent (200-person capacity)
- Staff tent
- Coroner recovery team (four persons to move and one person to scribe)
- BioSeal units
- Dedicated mobile command center
- John Deere Gator

Monterey County has not acquired these items, therefore outside assistance will be needed to respond effectively to a catastrophic incident with mass fatalities. The Monterey County Morgue is located on Natividad Road and has a 5-slab capacity.

5.2.2 State Resources

State resources that can be requested through the SOC include the following:

- California Department of Justice (DOJ) Missing/Unidentified Persons Section
- California DOJ Bureau of Forensic Services
- California Department of Motor Vehicles
- California Military Department/California National Guard
- California Dental Identification Team

The roles of these agency resources are described in **Section 3.3**.

5.2.3 Federal Resources

Federal mass fatality resources that may be requested by SOC on behalf of the region and Operational Areas include the following:

Under ESF #8, the Federal Government may provide assistance for mass fatality operations through the deployment of DMORTs. DMORTs are composed of funeral directors, Medical Examiners, Coroners, pathologists, forensic anthropologists, medical records technicians and transcribers, fingerprint specialists, forensic odontologists, dental assistants, X-ray technicians, mental health specialists, computer professionals, administrative support staff, and security and investigative personnel. During a response, DMORTs work under the guidance and activation of local authorities, and can provide support for:

- Temporary morgue facilities
- Victim identification
- Forensic dental pathology
- Forensic anthropology methods
- Processing, preparation, and disposition of remains

The Department of Health and Human Services also maintains three Logistics Response Assistance Teams (LRATs). The LRATs consist of logistics personnel from throughout the National Disaster Medical System (NDMS). LRAT teams are responsible for maintaining and deploying the equipment caches for all NDMS teams including DMORT, Disaster Medical Assistance Team, and the Veterinary teams.

5.2.4 Private-Sector Resources

Because of limited morgue and hospital storage capacity, Monterey County has to rely on private-sector partnerships to meet the needs of mass fatality operations. Shortfalls in space, equipment, and personnel require the activation of Memoranda of Understanding (MOUs) with private-sector entities. Key partners are discussed below and listed in **Table 3-5**.

- **Death care industry.** Whitehurst-Muller, Struve and Laporte, Healy, Whithurst-Grim, Chapel of Seaside, Mission Mortuary, and Paul Mortuary in Monterey may be used for support of mass fatality operations, including storage and cremation. Certified staff may be added to applicable teams at the discretion of the Sheriff-Coroner.
- **Refrigerated trucks.** Thermo King Corporation, Martrak Transportation, or Safeway Incorporated may be contacted to supply refrigerated trucks for temporary storage of human remains either before or after the examination.
- **Cooling sheds.** The agricultural profile of Monterey County identifies numerous farming facilities containing large cooling sheds for the temporary storage of agricultural products waiting for transportation. Some of the larger growers may have space available to offer temporary storage of human remains either before or after the examination. These farm entities may be reached through the Monterey County Farm Bureau and/or the County Agricultural Commissioner.

5.2.5 Anticipated Resource Shortages

Anticipated shortages include but are not limited to the following:

- Key Coroner equipment and supplies
- Trained fatality management personnel
- Transport and storage vehicles for human remains, including licensed operators
- Storage facilities for human remains
- Morgue operations facilities and trained morgue operations personnel
- FAC facilities, supplies, and trained personnel

5.2.6 Resource Integration

California's system for managing emergencies and providing resources in support of response operations is governed by the State Emergency Plan and SEMS. In general, requests for resources must be made to the next level (for example, from a city to an Operational Area). Requests for assistance from State agencies, other States, or the Federal Government are to be made at the State level by Cal EMA.

State and Federal assets are incorporated into existing incidents based on the Incident Command System and in accordance with SEMS. Exceptions to this occur when policy defines local, State or Federal jurisdictions.

Local governments that receive support from State or Federal agencies may need to provide direct support to personnel or identify dedicated staging areas or areas for these operations. Examples are:

- Identification of State and Federal resources that may be of assistance to Monterey County. For mass fatality operations, resources may include Federal teams or contractors who conduct mass fatality support operations, and monitor the operations of locally hired contractors.
- Staging and logistical support of State and Federal resources
- Responsibility for allocation and management of State and Federal resources

In Monterey County, the initial ordering of additional resources comes from the Logistics Section of the EOC through RIMS Mission Requesting. Needs assessments are developed with the Planning Section and in support of the Incident Action Plan. Situational awareness and resource needs can be discussed during the Regional Coordination Group Conference Call, which is facilitated through the REOC. Resource requests should take place at the local and Operational Area levels first; established, local MOUs and contracts should be exercised before going to the next SEMS level. Personnel and equipment from pre-existing contracts may need to be expanded.

Incoming resources have needs in the areas of receiving, monitoring, supervision, and care/sheltering in order to be successfully integrated into mass fatality operations. The Logistics Section appropriates staging and food/lodging to support the incoming resources. If the incoming resources have been ordered and tasked through the Emergency Managers Mutual Aid (EMMA) system, the EMMA Coordinator in the Logistics Section is responsible for supporting that resource.

Once integrated, the incoming mass fatality resources are monitored through the Coroner/Fatalities Management Group in the Operations Section Law Enforcement Branch. Field supervision is through the Field CUC and the Coroner OIC. Within the EOC, the Coroner/Fatalities Management Group is activated within the Operations Section, which coordinates the integration of mass fatality resources from the regional, State, and Federal levels. The Coroner/Fatalities Management Group is supported by the Medical/Health Branch and the Law Enforcement Branch. The Additional support for mass fatality operations may be provided by the Hazardous Materials Group. Within Logistics, a Support Branch is activated, followed by the activation of Supply, Transportation, and Facilities Units, which support the Supply Branch for mass fatality logistics.

5.3 Mass Fatality Operations

The management of human remains during a mass fatality event typically includes nine phases, with the last phase being demobilization. The objective of this section is to describe the various fatality management phases and the key fatality operational elements in each phase. **Figure 5-2** illustrates the mass fatality management phases.

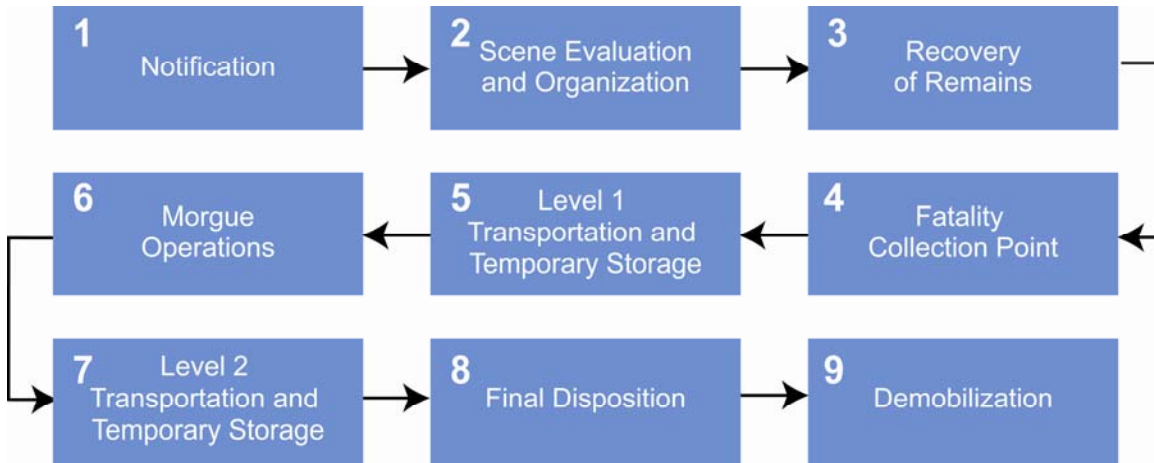


Figure 5-2. Phases and operational elements of mass fatality management.

The Monterey County Coroner's Office is the lead for all morgue operations. The principal activities of the Monterey County Coroner are:

- Search and recovery of the deceased
 - Incident site documentation
 - Collection of human remains and personal effects
 - Movement to the county temporary morgue or mass fatality incident morgue
- Medicolegal death investigation
 - Establishment of county temporary morgue or mass fatality incident morgue stations
 - Positive identification of human remains, when possible
 - Release of the decedent and associated personal effects
- Antemortem information collection
 - FAC operations

5.3.1 Phase 1: Notification

Disaster notification to the Coroner is typically routed through routine law enforcement, Emergency Operations Center channels, or news media broadcasts in advance of a request to respond to transport human remains. If supplemental mass fatality resources will be needed, as the first step in obtaining the resources, the Coroner notifies the Operational Area EOC.

Once notified, the Coroner gathers as much information as possible about the incident. The Coroner needs to be able to identify the Incident Commander, the level of involvement from other agencies, and how the incident is being managed. The Coroner needs to know the location of the Incident Command Post, to what extent the Incident

Command System has been established, and whether the disaster is considered a local or state emergency.

When a Coroner is notified of a mass fatality incident, notification should include the following information:

- Type of incident
- Location
- Estimated number of fatalities
- Condition of the human remains
- Demographics of those killed
- Ongoing response actions
- Response agencies currently on-scene or en route

To establish an on-scene incident command structure, Coroner staff should be recalled on immediate notification of a mass fatality incident. Staff members may be full-time, reserve, or part of another agency. Key staff includes:

- Coroner Detectives
- Forensic pathologist
- Office administrator
- Logistics Chief
- Forensic Autopsy Technician
- Public Information Officer

5.3.2 Phase 2: Scene Evaluation and Organization

The primary role of the Coroner is to determine the most effective and efficient approach for managing human remains. The approach is greatly influenced by the data gathered and reported by the Coroner Scene Evaluation team in the Scene Investigation Group. The Initial Startup form for the Monterey County Coroner's Office is contained in the Monterey County Coroner's Office Mass Fatality Response Plan.

The Coroner conducts the following activities upon arrival at the incident scene:

- Meets with the current Incident Commander and receive a status briefing
- Observes the incident site
- Observes the surrounding area

The Coroner asks the following questions to assist with the collection of scene data and management:

1. Is the incident stabilized? If not, when will it be?
2. When will the building be safe to begin search and recovery operations?
3. Will all the remains be recovered at once or over the course of several days or weeks?

The answers to these questions will provide information on how long the Coroner has to establish mass fatality management operations.

4. What is the estimated number of fatalities?

The answer will give the Coroner an estimate of the number of antemortem identification records that will be required.

5. What are the conditions of the deceased?

The Coroner should view several human remains to understand their condition (e.g., viewable, intact, fragments, aerosolized). The condition of the remains is the most important variable in determining the response operations strategy.

6. Have the human remains been moved, and if so, where?

The answer will help the Coroner establish recovery parameters and decide whether to establish a temporary morgue or participate in a Regional Incident Morgue.

The Coroner remains on-scene until the mass fatality management operation is established to ensure that the incident response follows protocol. The Coroner provides guidance to the current Incident Commander; assigns a Coroner OIC; assembles the three field operations teams; assigns team leaders and other positions; and distributes incident priorities and objectives to staff. The Coroner is not in charge of specific response areas but focuses on overall mass fatality management.

Table 5-1 presents critical mass fatality management operations positions and the potential daily position crosswalk.

Table 5-1. Monterey County Coroner mass fatality incident operations personnel assignments.

Operation	Personnel Assignment
Incident morgue	Senior morgue administrator
Search and recovery	Senior death investigator
Family Assistance Center	Senior victim services coordinator or advocate
Media	Public Information Officer, next-senior morgue administrator
Logistics	Senior supply and budget manager
Personal effects	Senior evidence technician

The Coroner will not have enough staff to fill all positions, but by accessing personnel from within the local jurisdiction and the Coroner/Medical Examiner Mutual Aid System, critical position assignments can be made.

5.3.3 Phase 3: Recovery of Remains

The Coroner is in charge of human remains recovery after the earthquake. The search for human remains and personal effects occurs as part of the search for live victims. Urban Search and Rescue (USAR) teams go from building to building and through building debris searching for people needing rescue. As the teams locate fatalities, they document the discovery and communicate the location information to Incident Command.

The Monterey County Coroner's Office oversees human remains recovery with the goal of establishing a confirmed identification for each decedent, associating each body part with a particular decedent, documenting any injury pattern, and completing required investigations. Preservation of any evidence is critical.

After considering the number of expected fatalities and observing the incident site and terrain, the Incident Commander determines the most appropriate search pattern to be used. The search must be systematic and comprehensive with the goal of removing all human remains, fragments, and personal effects at the incident site.

5.3.3.1 Pre-Search Actions

The following actions should take place before any search and recovery operations are carried out:

- **Document the entire scene.** The entire scene should be photographed using both still photography and video.
- **Establish perimeters.** Initial boundaries and perimeters should be established several hundred yards away from the impact zone.
- **Assess hazards.** The search and recovery team leader should meet with the Incident Commander, and fire and hazardous materials personnel to identify and assess scene hazards and determine which actions should be taken to mitigate the hazards.

Potential hazards are:

- Blood-borne pathogens
- Chemical contamination
- Debris or wreckage
- Harmful animals

5.3.3.2 Search and Recovery Resources

The following may be helpful in assembling a search and recovery team:

- US&R
- Sworn law enforcement
- Fire department (structural recoveries)
- Funeral directors
- Military personnel
- Volunteer S&R teams
- Cadaver/body dog teams

5.3.3.3 Search and Recovery Team Positions

The responsibilities of the team positions are as follows:

- The death investigator/team leader is responsible for the search and recovery team, assigns positions, ensures all needed equipment is available and procedures followed. Understands OSHA requirements.
- The team scribe is responsible for issuing case numbers.
- The search team photographer is responsible for photographing each body or fragment before and after a case-number tag has been affixed or placed next to it.
- Searchers are responsible for locating the human remains, fragments, and personal effects; marking the site with a flag or paint with an assigned case number; placing a tag with case number on the human remains, fragments, and personal effects; placing the remains into the human remains pouch; and marking the human remains pouch with the assigned case number.
- Recovery personnel are responsible for assisting with placing the human remains, fragments, and personal effects into the human remains pouches and carry the letters to the recovery staging area.

5.3.3.4 Search and Recovery Equipment

Basic search and recovery equipment includes litters, human remains pouches, various pin flags, various colors of spray paint, tags, writing supplies, radios, and plastic bags of various sizes for personal effects.

5.3.3.5 Search and Recovery Sequence

The sequence of the search and recovery process is as follows:

- Identify buildings or structures where fatalities are present
- Locate human remains and personal effects
- Write the case number on one tag

- Photograph human remains, fragments, or personal effects
- Attach tag to body, fragment, or personal effect
- Re-photograph human remains, fragment, or personal effects
- Spray paint the case number on the ground near the remains or personal effect
- Record the information on the log
- Place recovered items in the human remains pouch or plastic bag
- Write the case number on the human remains pouch or plastic bag
- Place the human remains pouch or plastic bag on a litter
- Move the litter to the Recovery Staging Area in preparation for transport to the Regional Incident Morgue or county morgue
- Re-photograph the area
- Continue with the search

5.3.3.6 Searching Collapsed Buildings

Remains are often extremely difficult to recover, and those conducting the search and recovery operation are often at risk of serious injury from falling or unstable debris. A plan of the building or buildings to be searched should be acquired. If such plans do not exist, they may be developed from interviews with people familiar with the structure.

Survivors of the building collapse should be interviewed to determine the usual pre-incident location and the last known pre-incident location of each known or potential victim.

An engineer should superimpose the remaining structure onto the floor plan to provide an image of the building as it currently exists, number the remaining major support beams or walls, and place the corresponding number on the floor plan and beams or walls.

Search and recovery can then begin. Search and recovery can start from the top and bottom of the structure at the same time.

5.3.3.7 Recovery Staging Area

The remains, fragments, and personal effects are staged for movement to the mass fatality incident morgue. Movement can be accomplished by:

- Individual removal in individual removal vehicles
- Group removal in a refrigerated trailer
 - Requires fewer transportation resources
 - Slows decomposition
 - May overload the morgue if not properly planned

Before moving human remains, fragments, and personal effects, the following should be done:

- Check the case number on the human remains pouch against the case number attached to the human remains, fragment, or personal effects
- Maintain a log recording what human remains, fragments, and personal effects were transported from the incident site, what transport vehicle was used (number or license), and the name of the vehicle operator

5.3.3.8 Gridding

Gridding is the process of establishing the exact location of human remains, fragments, and personal effects to include slope and distance from an established point. Gridding helps determine relationships, if any, among the human remains and items, after all items have been plotted, and can assist in the identification of the decedents.

Gridding is complete when the search and recovery operation is complete. The Coroner's Office should ensure that the exact locations of the human remains, fragments, and personal effects are documented in a usable format. The end product should be a computer-generated site map developed using a computer aided-design program that clearly shows all recovery locations.

5.3.3.9 Natividad Medical Center and Other Hospitals

Patients who are pronounced dead after they are admitted to the hospital should be transported to the morgue with intact patient identification and secured personal belongings. Patients who present to the Emergency Department or who are brought to triage areas may not be as readily identified. Decedent identification staff should be alerted to patients in triage areas who are expected to die and attempt to secure patient identification and next of kin information before death.

Information on all decedents should be entered on a HICS-254 Disaster Victim Tracking Form (attached to hospital mass fatality plans) or equivalent and transmitted to the Medical Care Branch Leader, EOC, and Coroner. Coordinate contact with external agencies and Family Information Center via liaison officer if necessary. The minimum information needed to start a death record is county, date of death, and first and last names.

All decedents in mass fatality incident areas must be covered, tagged, and identified if possible.

5.3.3.10 Standard Precautions for Infection Control

Human remains are generally not contagious after death, but a minimal risk is associated with viruses such as the human immunodeficiency virus (HIV) and hepatitis

B and C if universal infection control measures are not followed when handling human remains.

Standard precautions are a combination of personal protection equipment and procedures used to reduce transmission of all pathogens from moist body substances to personnel or patients. These precautions are determined by the nature of an interaction (e.g., possibility of splashing, potential of soiling garments) rather than the nature of a pathogen. In addition, transmission-based precautions are applied for known or suspected pathogens. Standard precautions include the following:

- Airborne precautions are used for pathogens that remain suspended in the air in the form of droplet nuclei that can transmit infection if inhaled
- Droplet precautions are used for pathogens that are transmitted by large droplets traveling 3 to 6 feet (e.g., from sneezes or coughs) and are no longer transmitted after they fall to the ground
- Contact precautions are used for pathogens that might be transmitted by contamination of environmental surfaces and equipment

All autopsies involve exposure to blood, a risk of being splashed or splattered, and a risk of percutaneous injury. The propensity of postmortem procedures to cause gross soiling of the immediate environment also requires use of effective containment strategies. All autopsies generate aerosols. Furthermore, postmortem procedures that require use of devices (e.g., oscillating saws) that generate fine aerosols can create airborne particles that contain infectious pathogens not normally transmitted by the airborne route.

For autopsies, standard precautions are a surgical scrub suit, surgical cap, impervious gown or apron with full sleeve coverage, a form of eye protection (e.g., goggles, face shield), shoe covers, and double surgical gloves with an interposed layer of cut-proof synthetic mesh. Surgical masks protect the nose and mouth from splashes of body fluids (i.e., droplets >5 micrometers) but do not provide protection from airborne pathogens. Because of the fine aerosols generated at autopsy, autopsy workers should wear N95 respirators, at a minimum, for all autopsies regardless of suspected or known pathogens. However, because of the generation of high-concentration aerosols by mechanical devices in the autopsy setting, powered air-purifying respirators (PAPRs) equipped with N95 or P100 high-efficiency particulate air (HEPA) filters should be considered. Autopsy personnel who cannot wear N95 respirators because of facial hair or other reasons should wear PAPRs.

5.3.4 Phase 4: Fatality Collection Point

Fatality collection points are key components in the strategy for managing a surge of decedents. The purpose of the Fatality Collection Point is to provide short-term shelter, privacy, and security for human remains and associated evidence until transportation to the incident morgue is arranged.

Human remains, fragments, and personal effects are collected at the fatality collection point. The remains are sorted by potential ease of identification (i.e., intact bodies versus fragments). Suspicious deaths are documented for further review at the morgue.

Drivers and various transportation modes, including refrigerated trucks and vans, are assigned to transport the decedent and personal effects from the fatality collection point to temporary storage at the morgue. The fatality collection point verifies driver identification and log information regarding the driver, transport vehicle, and the decedent and personal effects.

5.3.5 Phase 5: Level 1 Transportation and Temporary Storage

5.3.5.1 Transportation

Transportation and temporary storage involve the movement of the decedent from the fatality collection point to the morgue. Personnel assigned to the transportation coordination should establish a schedule with the Coroner or his or her designee for transfer of remains to the county morgue, temporary morgue, or Regional Incident Morgue. These operations are conducted by the members of the Scene Investigation Team. Schedules should be arranged and operate on a 24-hour basis. State and Federal Department of Transportation (DOT) requirements must be satisfied for the transportation of human remains. Transportation across State lines requires approval of receiving State(s). Transportation across international borders (Canada and Mexico) may require State Department approval and the receiving nation's approval.

Monterey County, like many counties, has a limited supply of transport vehicles and personnel. Private remains removal services within the Bay Area region are typically small operations with two or three transport vehicles. If available, refrigerated trailers should be used for the transport of human remains to minimize the decomposition process.

Transportation logs should be maintained to ensure accountability of all remains. Procedures include the following:

- A transportation log sheet should be maintained, indicating the following:
 - Assigned body number for each decedent being transported
 - Number of remains being transported in the vehicle
 - License number of the transporting vehicle
 - Name of the driver of the transporting vehicle
 - Signature of the driver accepting responsibility for the remains
 - Date and time vehicle leaves incident site for morgue
- Enclosed professional funeral vehicles or refrigerated trailers should be used.
- Remains should not be stacked.

- If refrigerated trailers are used, all company logos or names, if any, should be removed.
- The number of refrigerated trailers needed for transport should be determined (approximately 20 adult whole bodies per 40-foot trailer).
- Vehicles should be parked in a secure area near recovery point with easy access for loading remains.
- After human remains, fragments, or personal effects are bagged, tagged, and placed on a litter, they are carried to the vehicle and loaded.
- Sufficient personnel to carry each litter should be used; 4 people are recommended.
- A Unit Leader should be assigned to maintain the inventory of all remains stored in the refrigerated unit.
- Trailer doors should be locked when the trailer is not in use.
- A route should be provided to the vehicle driver; who should proceed directly to the morgue without deviations.
- Police escorts should be arranged with local or State law enforcement.
- Ambulances should not be used to transport decedents.

5.3.5.2 Pre-Examination Temporary Storage of Human Remains

During a mass fatality incident, human remains and personal effects may need to be stored for an extended period, until the Coroner's Division is able to identify remains, determine cause and manner of death, and issue a death certificate.

When the human remains transport vehicle arrives at a morgue, the Receiving Station accepts the human remains, fragments, and/or personal effects, logs the arrival time and case number, creates a case file folder, and places the remains in initial temporary storage until all morgue stations are fully operational and/or not overloaded.

When a morgue station is capable of receiving human remains, fragments, and/or personal effects the decedents are moved from temporary storage by an assigned escort who moves them through each morgue station for processing.

5.3.6 Phase 6: Morgue Operations

Morgue operations are resource-intensive activities because of workforce requirements, logistical requirements, and emotional stress. Meticulous data management is essential for the morgue to confirm identification and ensure that the correct remains are released to the next of kin. The deceased must be treated with dignity and respect throughout this process.

Morgue operations begin with the transportation of the human remains from the fatality collection point to the morgue, either county morgue, county temporary morgue, or the Regional Incident Morgue.

A formal triage and examination process is followed when the human remains are received at the morgue. This is referred to as the postmortem process. At the end of this process, a detailed postmortem report is completed, which will be used as part of the identification process.

Monterey County Coroner's Office should evaluate its capacity to manage the number and condition of the deceased in a timely and effective manner that meets legal requirements and minimizes distress for the families of the deceased and the community. The evaluation process should include staff, facility, and resource capabilities. Day-to-day operations must be kept separate from the mass fatality incident associated fatalities. Once the evaluation is complete, the Coroner's Division will decide how the county will conduct incident-related morgue operations using the Temporary Morgue Group. Options include the following:

- Using the existing county morgue
- Establishing and using a temporary morgue in the Operational Area
- Preparing, tracking, and transporting decedents to one of the three proposed Regional Incident Morgues in the Bay Area

The goals of morgue operations are to:

- Document the cause, manner and mechanism of death
- Confirm identity of the deceased
- Provide a physical accounting for all decedents affected directly by the incident
- Provide death notification, generate a death certificate, and release the decedents and associated personal effects to the next of kin for final disposition

An assigned escort stays with the decedent through each of the mass fatality incident morgue stations. The stations are described below and shown in **Figure 5-3**.

- Administration Station
 - Acts as the single point of contact for all morgue operations
 - Collects and collates all antemortem identification records
 - Manages or administers case files
 - Monitors status boards, which tracks the status of human remains and fragments.
- Receiving Station
 - Receives the remains or personal effects
 - Initiates case file folder, including case file number

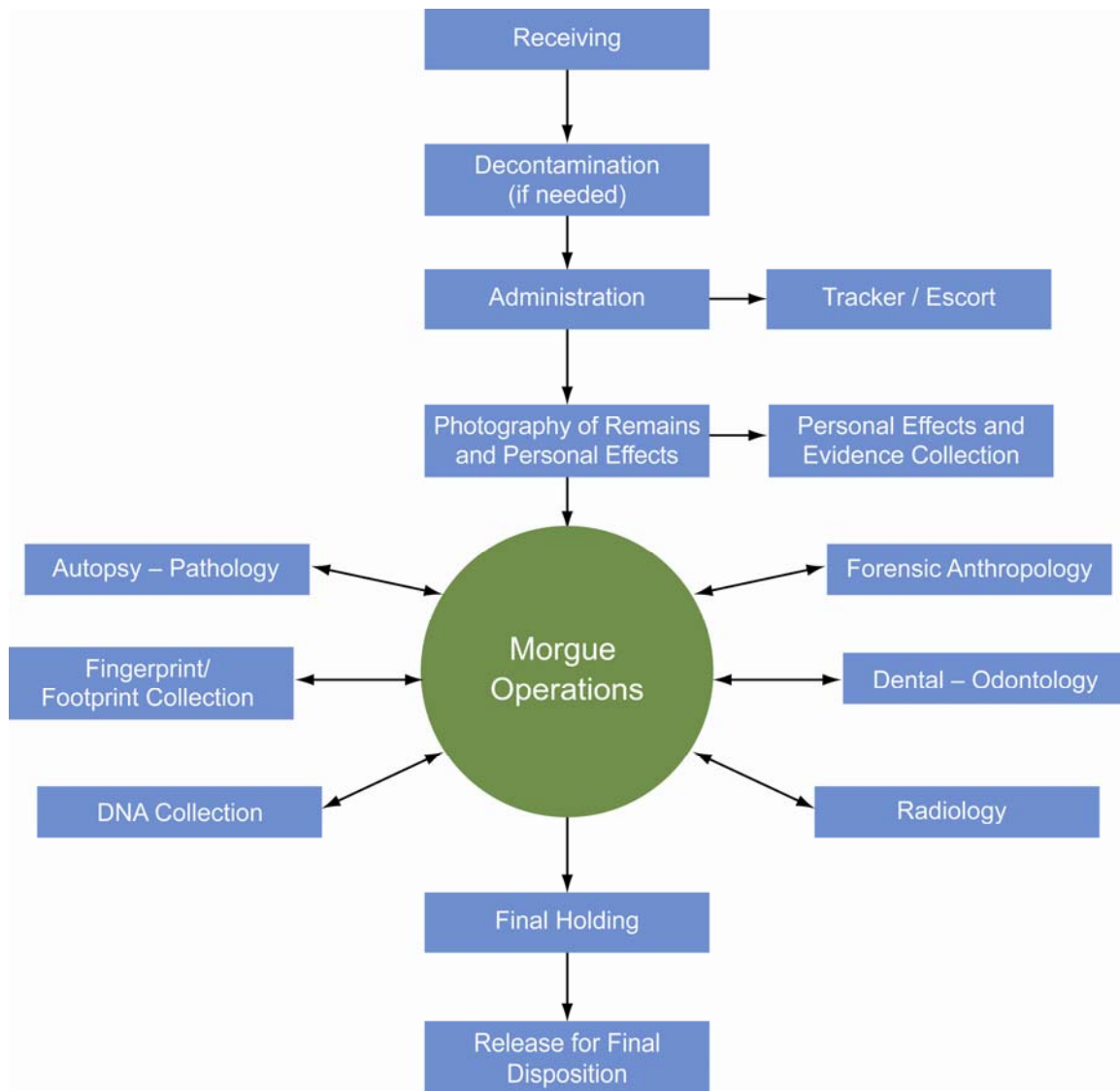


Figure 5-3. Human remains processing: Morgue operations.

- Places remains in temporary refrigerated holding or assign an escort
- Provide spiritual services for decedents
- Decontamination Station (if needed)
 - Thoroughly decontaminates remains, fragments, and/or personal effects
- Photography Station
 - Photographs the remains
- Personal Effects and Evidence Collection Station
 - Removes, inspects, and document personal effects
 - Removes, inspects and documents clothing

- Fingerprint/Footprint Station
 - Confirms identification if possible
 - Takes finger and footprints
- Radiology Station
 - X-rays remains to reveal foreign objects and teeth in human tissue
- Dental – Odontology
 - Takes dentagram (most used method for establishing a confirmed identification)
- Autopsy – Pathology Station
 - Weighs the remains
 - Completes detailed diagram of injury patterns, missing portions, and other artifact.
 - Takes additional photographs that have not already been taken
 - Reviews work of previous morgue stations.
 - Collects any external fluid samples
 - Collects tissue sample, if needed
 - Places human remains into human remains pouches
 - Moves personal effects to personal effects warehouse
- Forensic Anthropology Station
 - Assists in determining number of fatalities and gender, age, and race of decedent
 - Performs forensic anthropologist exam
- DNA Station
 - Collects DNA samples
- Final Holding Station (separate from the initial holding area)
 - Returns files to the Administration Station
- Release Station
 - Only physical location from which the remains can leave the morgue
 - Receives instructions from legal next of kin for final disposition
 - Checks that the case file folder is complete and all documentation is final
 - Coroner signs the death certificate
 - Gives the receiving funeral home or other party a designated time for pick up
 - Provides file folder and written release, including the case number, confirmed identification, name of the receiving party, and time the remains are to be picked up

- Verifies identification of funeral director upon arrival
- Retrieves the remains from the holding area
- Verifies the case number on the human remains pouch, coffin, or shipping container
- Has receipt document signed by the receiving funeral director or other party

Each station is responsible for updating status boards and updating case files for each decedent.

After the medicolegal autopsy or inspection is complete, the forensic pathologist, forensic anthropologist, and criminalist should make a determination about the confirmed identification of the decedent.

5.3.6.1 County Morgues

After a catastrophic incident, the Monterey County Coroner's Office not only has to manage incident-related fatalities but also maintain the regular case load. Assessing the full surge operational capacity of the county morgue is therefore critical.

If the Coroner determines that the numbers and conditions of the decedents will not overwhelm the existing morgue and chooses to process incident-related fatalities with county resources. The following actions should be taken to manage the significant increase in work, ensure accurate data management, and provide support to the community:

- Identify a member of the staff to serve as the point-of-contact for non-incident-related existing cases and new arrivals
- Establish a separate area for non-incident-related existing cases and new arrivals
- Use a color-coded system for all mass fatality case files so that files can be identified easily if misplaced

If the Coroner determines that the current facilities and day-to-day case load cannot bear the operational demands of the incident-related fatalities, the Coroner should establish a temporary morgue in the Operational Area or prepare to participate in the Regional Incident Morgue.

5.3.6.2 Temporary Morgues

A temporary morgue is used to augment mass fatality processing operations, provide a determination of the cause of death, and identify victims for return to the legal next of kin. Facilities that have been used as temporary morgues are aircraft hangars, large durable tents, and high-school gymnasiums.

After receiving an assessment of impact of the earthquake, the Coroner should consider the following factors in the establishment of a temporary morgue in the Operational Area:

- Number of fatalities
- Current county capacity including cold storage, factoring in current non-incident-related case load
- Potential for the county morgue to be expanded
- Availability of suitable facilities
- Ability to keep non-incident-related case load separate from incident-related case load
- Ability to support the temporary morgue and provide personnel, security, equipment
- Desired operations end state
 - Confirmed identification and complete medico legal autopsy, or
 - Attempt at establishing confirmed identification with autopsy sampling, as specific by law
- Location
- Compliance with OSHA regulations
- Controlled access
- Necessary square footage, water, sewer, electricity, and climate control

Site Selection

The Coroner should identify potential temporary morgue sites in the Operational Area before a mass fatality incident. The following characteristics should be considered when establishing a temporary morgue site:

- Proximity to the greatest number of fatalities without impeding search operations. The site should be out of the view of the public and the media as much as possible.
- Sufficient space to accommodate the morgue stations
- Single story
- Sufficient electricity, water, waste disposal, ventilation and lighting
- Ability to accommodate large vehicles and trailers
- Easily cleaned surfaces

5.3.6.3 Regional Incident Morgue(s)

During a mass fatality event, local jurisdictions may lack sufficient personnel, equipment, and storage capacity to handle significant numbers of deceased victims.

Therefore, jurisdictions may depend on the federally supported Regional Incident Morgue(s). This section discusses the operations of these facilities, which are supported by DMORTs, associated equipment, and support personnel. DMORTs are activated immediately; however, their arrivals at the facilities take longer than 48 hours due to damage to infrastructure.

After a catastrophic disaster, the establishment of a Regional Incident Morgue to perform mass fatality management operations for the 12 Bay Area counties assists the Coroner/Medical Examiner to increase regional mass fatality management capacity, expedite the return of the deceased to the legal next of kin, and reduce the negative impact on the recovery of the Bay Area communities. When a disaster catastrophically impacts Monterey the use of a Regional Incident Morgue may be necessary. For the earthquake scenario in this Plan, the Coroner will not need support or the use of a Regional Incident Morgue.

5.3.6.4 Autopsies

Because of the catastrophic nature of the earthquake and the number of fatalities, it may not be practical to consider performing a complete autopsy on all remains. The Monterey County Coroner's Office should determine which remains require an autopsy (i.e., which will support the overall investigation). The number of cases requiring autopsy may exceed the operational capacity of the Monterey County Coroner's Office. The Coroner should coordinate support from adjoining jurisdictions, states, or from Federal resources, or may need to seek authorization to apply professional discretion to autopsy only appropriate sample cases. Such authorization may be requested for inclusion in the Presidential Disaster Declaration or Executive Order covering the State of Emergency.

Liquid waste (e.g., body fluids) can be flushed or washed down ordinary sanitary drains without special procedures. Pretreatment of liquid waste is not required and might damage sewage treatment systems. If substantial volumes are expected, the local wastewater treatment personnel should be consulted in advance. Solid waste should be appropriately contained in biohazard or sharps containers and incinerated in a medical waste incinerator.

5.3.6.5 Waste Handling

Liquid waste (e.g., body fluids) disposal procedures should be reviewed with Environmental Health staff. Usually, fatality liquid waste can be flushed or washed down ordinary sanitary drains without special procedures. Pretreatment of liquid waste is not required and might damage sewage treatment systems. If substantial volumes are expected, the local wastewater treatment plant personnel should be consulted in advance. Solid waste should be appropriately contained in biohazard or sharps containers and incinerated in a medical waste incinerator.

5.3.7 Phase 7: Level 2 Transportation and Temporary Storage

Phase 7 involves the temporary storage and transport of human remains between the morgue operations facilities and the final disposition facilities/locations.

The legal next of kin provide final disposition instructions to the morgue. Typically, a funeral home is designated to provide final disposition for the deceased. The morgue coordinates with the funeral home to provide a time for pick up and transport of the decedent for final disposition.

Upon arrival of the decedents in the Release Area, the staff:

- Verifies identification of funeral director upon arrival
- Retrieves the remains from the holding area
- Verifies the case number on the human remains pouch, coffin, or shipping container
- Has the receipt document signed by the receiving funeral director or other party

The human remains or fragments are then turned over the receiving funeral director for transport or other designated party.

5.3.7.1 Post-Examination Temporary Storage of Human Remains

During a mass fatality incident, human remains and the personal effects of the deceased may need to be stored for an extended period while awaiting final disposition after morgue processing.

Post-examination temporary storage should not be in the same area as the initial temporary storage. The post-examination temporary storage area holds remains until they are released to the funeral director or other designated party for transportation to an area for final disposition. Remains are held in refrigeration or in caskets or shipping containers. MOUs with local trucking companies may be exercised in order to obtain refrigerated containers. Additionally, agricultural cooling sheds may be secured and used for this purpose.

Temporary interment may be an option for immediate storage below ground for natural refrigeration when no other option is available. See **Appendix G** for more information on temporary interment.

5.3.8 Phase 8: Final Disposition

In a mass fatality event, the death care industry will also be overwhelmed. The Monterey County Coroner's Office must work with the death care industry to identify strategies to manage final disposition of the deceased. Some strategies to consider are described below:

- Coordinate with the REOC and the California Funeral Directors Association to request assistance from funeral homes, cemeteries and cremation services in neighboring unaffected counties or affected counties that have a much lower death total. This aid could be in the form of temporary staff and equipment/supplies or carrying out final disposition for some decedents in neighboring counties.
- Expand refrigerated storage capacity for remains that have been identified and are awaiting final disposition.
- Expedite cremation certificates, burial permits, and transit permits
- Expedite the embalming process by providing aftercare services (embalming and casketing) at the Regional Incident Morgue to reduce the burden on local funeral homes
- Secure temporary storage for embalmed and casketed remains in vaults—existing vaults and/or creating temporary vaults

Monterey County may consider entering into a MOU with the funeral homes, cemeteries, and crematoriums in their jurisdictions that agree to the Plan and will operate in accordance with it in the event of a mass fatality to the best of their ability and current capabilities.

Final disposition options include individual burial, State-sponsored individual burial, entombment, temporary interment, voluntary cremation, and involuntary cremation. If State-sponsored final disposition is required, the Coroner must arrange for transportation and handling of human remains.

5.3.8.1 Family Assistance Center

The establishment of a Family Assistance Center⁵ (FAC) is essential to facilitate the exchange of information and to address the needs of the families of the decedents. The FAC provides families with accurate information in an appropriate manner and setting.

In the aftermath of catastrophic earthquake, family and friends frantically seek assistance locating their loved ones. It is most common for family and friends to show up at places their loved ones are likely to have been at the time of the earthquake or to places that may have information about the injured or deceased. The establishment of a FAC addresses two critical needs: (1) it keeps families and friends away from incident locations and hospitals, where first responders can conduct vital life-saving operations without interference, and (2) it provides the family assistance services families and friends desperately seek.

⁵ The California Mass Fatality Management Guide: A Supplement to the State of California Coroner's Mutual Aid Plan, prepared by Cal EMA.

Family assistance describes various programs that are provided in a central location to help immediate family, other relatives, and friends of those persons directly affected by the incident.

The term “family” is not limited to those with biological or marital ties. Family applies to all persons with a common concern or love for the injured or deceased. This loosely defined term includes parents, siblings, grandparents, life partners, spouses, fiancées, children, long-term family friends, and even co-workers who support the immediate family and provide information to the various response agencies.

Several goals are associated with the provision of family assistance. The first goal is to provide a uniform level of immediate help to all survivors and families. This begins with the establishment of a call center. The call center gathers information from callers and enters initial details about the deceased into an information database, sometimes referred to as an information path.

Additional goals of family assistance are:

- Notifying families and friends of the decedents’ involvement in the event
- Providing transport, food, and lodging at the disaster area
- Establishing an FAC with screened and trained individuals
- Possessing an understanding of the process
- Understanding how to work with families of those who have lost someone to a sudden, unexpected death
- Establishing a system for local authorities to quickly collect information from the families of the decedents
 - Collect DNA references from families
 - Gather dental and medical records
 - Conduct detailed interviews about the deceased
- Providing families with an understanding of what will happen with regard to the deceased over the next few weeks and months
- Holding a series of briefings conducted by local, State, and Federal government agencies
- Providing immediate financial assistance to help cover normal living expenses and funeral costs
- Arranging for the return of the loved one’s personal effects

Site Selection

The traditional FAC is a secure facility established at a centralized location to provide information about missing persons who may be victims of the disaster. For the scenario earthquake, more than 7,000 fatalities are projected to occur across multiple

counties, requiring the establishment of a Family Assistance Center. Generally the Monterey County Coroner's Office is responsible for establishing the FAC.

The DMORTs coordinate with Operational Areas to identify facilities where both the Regional Incident Morgues and FACs can be established. The FACs should be close enough to the temporary morgues so that the Coroner can travel, but not so close that friends and families would be exposed to morgue operations.

Facility Description

FACs typically have separate areas for operations, reception and registration, general assembly, counseling, medical issues, death notification, and reflection.

- **Operations center:** An operations center is necessary to allow the different service groups and organizations to meet, coordinate, and plan. With all support agencies participating in the operations center, family services can be provided, information can be shared, messaging can be standardized, and services can be efficiently and effectively provided without duplication.

The coordination of information between morgue operations and the FAC below for positive identification of decedents is shown in **Figure 5-4**.

- **Reception and registration for families:** When friends and family members arrive at the FAC, the staff should greet them and gather information about who will be visiting the FAC. Staff will assign them an escort who will take them to a designated area where they may be more comfortable and can be found if necessary. When friends and families leave the FAC, they should check out and leave their address so that they can be contacted with additional information and support and notification of their loved one's death. When adequate personnel are available, an escort may be assigned to each family group. Escorts may help the families with any need that arises during their time at the FAC. The American Red Cross and some private companies can provide personnel trained in counseling to provide escort services.
- **General assembly room:** The general assembly room is a large room with a public address system for the purpose of providing updates on the search and recovery process to large gatherings of family and friends. Depending on the number of family and friends present at the FAC, updates should be given multiple times per day.
- **Counseling rooms:** Several small rooms should be available to provide private space where information can be gathered or disseminated; for instance:
 - Gather antemortem data from appropriate family members
 - Provide counseling from clergy and mental health professionals to family members
 - Provide information on the identification process

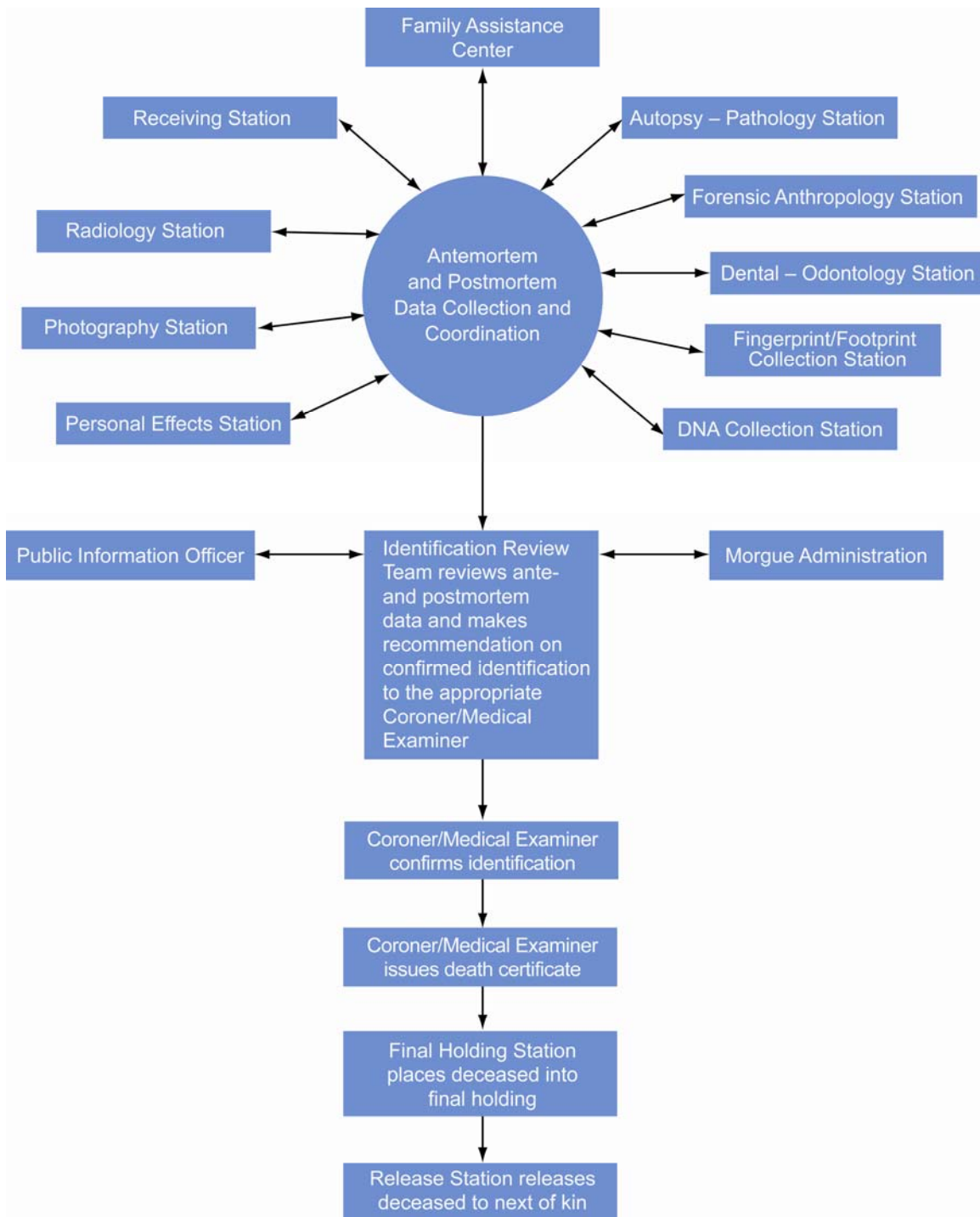


Figure 5-4. Family Assistance Center flow chart.

- Interview for baseline information
- Allow family to make calls to other friends and family
- **Medical area:** A mass fatality event is extremely traumatic and friends and families may experience health issues during their visit to the FAC. The medical area is designated as a place where people can receive medical assistance.
- **Death notification rooms:** Several rooms should be designated to provide privacy and expedite the notification process. The rooms are to be used to make the notification to the next of kin that their loved one has been positively identified. It is preferable that death notifications be made at the family's residence rather than requiring families to come to the FAC.
- **Reflection room:** The Reflection Room is available for victims' families and friends to quietly reflect, meditate, pray, seek spiritual guidance, or observe religious practices. When preparing this space for use, every reasonable consideration should be made to respect diverse cultures and beliefs.

Functions of the Family Assistance Center

The functions of an FAC are to collect antemortem data, notify the next of kin of a death, provide security to protect privacy, and disseminate information to the public and the media.

- **Collection of antemortem data:** Personnel at the FAC are assigned to collect accurate and detailed antemortem information from the friends and families of the decedents. This information may be gathered by experienced death investigators or funeral directors who have been briefed on the information they need to collect from the friends and families. If funeral directors are providing this service, it is critical that they act as representatives of the Monterey County Sheriff Coroner Division and not as funeral directors. Funeral directors may be selected to perform this service for many reasons, including their training in collecting antemortem information and their experience in dealing with families in crisis.
- **Death notifications:** The procedures for death notification are an important component of a sensitive family assistance plan. Whenever possible, death notification should be made by a team rather than an individual. The team may consist of a representative of the Coroner, a member of the clergy, a mental health professional, and possibly a medical professional. Some families may feel a notification team is not necessary, but other families may need the support. It is better to err on the side of having support persons present in case they are needed than to need them and not have them present. If the family's own pastor or other clergy member is present, the team clergy should play only a supportive role. The notification team should be well briefed on the information being provided to the families so they can answer as many questions as possible. The team should be given a fact sheet that contains relevant information that they can leave with the

family for later reference, because family members may forget to ask questions at the time of the notification.

Death notification teams also should be available to travel to meet with families who do not want to or are not physically able to come to the FAC. Next of kin who are out of town should always be notified in person. When a death notification must be made in a distant location, the office charged with death notification responsibilities can contact the sheriff or chief of police in the distant community to request coordination of notification. The American Red Cross or the State victim assistance agency can assist in providing a mental health professional. The office charged with death notification responsibilities can provide the notifying law enforcement agency with a letter from the Coroner that contains information about the decedent and the name and contact number for the Coroner in case the family has questions.

Staff conducting a death notification for a victim whose body is not intact must ask the family at the time of notification if they want to be informed about later identification of common tissue. Informing the family later about common tissue identification without their consent may be upsetting to them once they have buried their loved one. Families may prefer to be notified only about the memorial service and burial of the common tissue. After the family members make their decision, staff should provide them with a written copy of their decision as a reference for what they agreed to at that time.

- **Implementation of security measures:** Access to the FAC must be controlled so families and friends of the victims have privacy and are not overwhelmed by the press, photographers, and the public. Checkpoints may need to be established at entrances to the FAC and its parking lot. A badging or credentialing system can be implemented that gives family members and authorized workers easy access to the FAC.
- **Dissemination of public information and working with the media:** The Coroner should designate a Public Information Officer at the FAC to release information about the fatalities resulting from the earthquake. The press will have questions that only a representative of the Coroner's Division can properly answer, including questions about the recovery operation, identifications, and condition of the bodies. Information must be released to the press only by the designated Public Information Officer and not by any other staff members of the Coroner's Division. The JIC at the SOC or JFO will develop a strategy for disseminating information to the public. As a standard rule, no information should be released to the media unless it has been discussed with the families first.

5.3.8.2 Personal Effects Collection Point

Personal effects are the tangible property having an intimate relation to the decedent, such as clothing and jewelry that is located on or near the deceased at the time of the

event. Since the recovery of personal effects is extremely meaningful to the family of the deceased, the effects will be handled with the same care as human remains. Effects will be removed from each body, inventoried, and assigned an identification number correlating them back to the remains. The effects will be stored in the morgue, in a secure area, called the Personal Effects Collection Point. Once remains are identified, families will be notified as to the existence of the personal effects; at that time, it will be determined how and when the effects will be returned to the next of kin.

As personal effects are inventoried, weighed, and categorized, they are identified as either associated or unassociated. Associated items are those belongings found on an identified person or that have a clear and legible name or other identifying feature. Unassociated items are those recovered from human remains that are not identified or do not have a clear or legible identifying feature.

As families gather at the Family Assistance Center and are interviewed, they are briefed about the personal effects recovery and return process. For families who wish to be involved, their preferred level of participation and contact information is entered into the central database, and they are notified as associated items are recovered. Legal next of kin are asked to provide personal effects disposition instructions, which includes whether the items are to be returned or destroyed. Those items that are unassociated are documented in a pictorial catalogue. Next of kin who wish to receive the pictorial catalogue are given a set period to review the catalogue and make a formal, written claim.

County government may bring in specialized teams to manage this process or require local law enforcement agencies to manage the personal effects process. The people involved in returning the personal effects are seen as the public face of the mass fatality response operation. Returning the personal belongings and the interaction between the families and those caring for the personal effects is important.

Because of the nature of a mass fatality incident, death is typically sudden and violent. The personal belongings of the victims become significant to family members because typically the remains are not viewable or little, if any, remains may be recovered. The team assigned to personal effects will attempt to associate the items with the victim and return the items to the persons that are legally authorized to receive them.

It is recommended that the responsibility for collecting personal effects be assigned to a third party such as a private contractor with a proven track record in taking care of personal effects or a local major law enforcement agency.⁶ Law enforcement agencies are a good candidate for providing this service because they are skilled in evidence collection.

⁶ Jensen. *Mass Fatality and Casualty Incidents: A Field Guide*.

The team assigned to manage personal effects should consider establishing the following functions/roles:

- Compiling a list of persons eligible to receive personal effects
- Documentation of the collection and release of the effects
- Manager and point of contact for the Personal Effects Collection Point
- Development of policies for disposition or destruction of all personal effects, including how effects will be cataloged and the length of time the effects will be stored

5.3.8.3 Preparations for Funeral Homes and Crematoriums

The Monterey County Coroner's Office should coordinate final disposition with funeral homes and crematoriums. Providing information about the number of remains ready for release will assist funeral homes and crematoriums with planning for an increased case load. Funeral homes and crematoriums will communicate their current capability for disposition of remains.

5.3.8.4 Death Registration (Vital Records)

To meet the legal requirements of many jurisdictions, a death certificate is issued only when a positive identification is made. This occurs when a conclusive match between records created with information that existed before death (antemortem) and records created after death (postmortem) exist. A death certificate allows the family to formally acknowledge the death and begin the civil process of probate.

Death registration is a State/county responsibility and Monterey County has its own laws, regulations, and administrative practices to register a death. There is a legal distinction between the practices of pronouncing a death and certifying a death.

In day-to-day Coroner operations, the California Electronic Death Registration System (CA-EDRS) is used to create and register each death certificate—a permanent record of the death of an individual. Information from death certificates has several valuable legal and statistical uses, particularly in the evaluation of public health programs or in the case of the event scenario, in identifying the total number of deaths occurring as a direct result of the event. CDPH is responsible for administrative oversight of death registration and for the operation of CA-EDRS.

After an event, communications system degradation may hinder the Coroner's use of the registration system, and an alternate method of registering deaths may be needed. CDPH is prepared to issue and collect paper death certificates if the CA-EDRS is unavailable. Administrative support staff at each morgue will prepare the death certificates for each victim and make them available for the signature of a designated Coroner within the region. It is the responsibility of the Coroner to sign all death

certificates for deaths occurring under their jurisdiction. After the death certificates are signed, they will be delivered to CDPH as required by statute.

It is expected that if the CA-EDRS is operational and the temporary morgue is using the system, it will provide timely death data, timely cross matching with birth certificates for anti-fraud purposes, allow online verification of decedent's Social Security number, and provide online access to fact-of-death information.

5.3.8.5 Natividad Medical Center and Hospitals

Death certificate processing during a mass fatality incident remains the same. Coordinating information with CA-EDRS-trained County staff will expedite the process. Clerical staff should be oriented to the CA-EDRS minimum data set when assigned to the Morgue Administrative Task Force. Once the hospital has obtained the decedent's name, date and hour of death, causes of death, and obtained the physician signature, the hospital can transfer the record to a mortuary or the Coroner. Death certificates may be registered with limited information; dashes and "unknown" are allowed.

The causes of death listed on the death certificate are the physician's opinion regarding the death. The physician is legally responsible for completing the medical portion of the death certificate within 15 hours of the death event. The physician is not legally obligated to sign the death certificate if there was possibly something unnatural about the death. Pandemic influenza deaths from pneumonia or similar causes are not the Coroner's jurisdiction.

5.3.8.6 Disposition of Unidentified Remains

After the earthquake, the Coroner for each affected county will make the determination that all victims have been identified. Although the Coroner is able to make this determination, it is likely that unidentified human remains will still exist either at the incident location or under the control of the Monterey County Coroner's Office. The Coroner can make the decision not to positively identify the remains, but accommodations must be made for their proper disposition. The Coroner Division should make every effort to discuss disposition of remains fragments with the identified victim's families. Typically, unidentified remains are placed in a casket and buried with a grave marker.

5.3.9 Post Relief-Response Phase: Demobilization

Demobilization takes place when the centralized coordination of the mass fatality event is no longer required in the affected area. At a time when the majority of remains have been recovered, documented, and released, the Monterey County Coroner's Office will begin to demobilize the temporary morgues and transfer operations for the discovery, recovery, management, and disposition back to the Monterey County

Morgue. The Monterey County Coroner's Office should begin reestablishing local capabilities for morgue operations and the continued provision of family assistance.

5.4 Transition to Long-Term Operations

Due to the catastrophic nature of the earthquake, it is assumed that mass fatality operations will continue past 60 days. At some point in the response, it will be necessary to plan for the transition to long-term mass fatality operations.

The primary considerations when planning for the transition are as follows:

- Deactivation of supporting operations such as the temporary morgue
- Possibility of discovering additional remains
- Continuation of family assistance services
- If remains were temporarily interred, the movement of remains to final resting places in cemeteries
- Development and construction of memorials/monuments
- Repatriation
- Replacement of supplies and equipment
- Reconciliation of death certifications with insurance companies
- Providing critical incident stress management for staff
- Cleaning temporary and permanent facilities used to process human remains
- Determination of when funeral homes and mortuaries can resume normal operations
- Finalization of personal effects
- Processing record-keeping for financial purposes and for potential reimbursement by the Federal Government
- Conduct after-action review of operations and make necessary alterations to the plan.

In addition to the above long-term responsibilities, consideration should be given to conducting a region-wide analysis of mass fatality operations, which should include participation from the State and Federal agencies that participated in the response. The After-Action Review process for this Plan is described in **Section 6.4**.

5.5 Response Timeline

This section includes a response timeline matrix (see **Table 5-2**). The matrix covers actions recommended to meet the objectives for response. The actions in this section are time-based with the understanding that some actions may occur simultaneously. The matrix includes actions or observations, responsible agencies, and supporting agencies.

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective A1 Establish an Incident Command System that will coordinate mass fatality operations	1	E to E+72h	Mobilize County Sheriff-Coroner	Local law enforcement	Local first responder agencies	—
	2	E to E+72h	Activate and implement Monterey County/Operational Area Catastrophic Incident Mass Fatality Plan	Coroner	OES	—
	3	E to E+72h	Alert and activate staff and departments	Local OES	Public Safety Answering Points	—
	4	E to E+72h	Alert cities and coordinate response	Local OES	Public Safety Answering Points; CAL FIRE	—
	5	E to E+72h	Assign Mass Fatality positions for field operations	County Sheriff-Coroner or Coroner OIC	Unified Command Incident Commander	Positions include: Scene Investigation/Human Remains Recovery Officer in Charge, Morgue Services Officer in Charge, and Family Assistance Officer in Charge; Search and Recovery Teams; Photography Team, Documentation Team, and Property, Scene Evaluation Team, Evidence Team, and Body Recovery Transportation team
Objective A2 Restore Coroner interoperable emergency communications among public-and private sector mass fatality operations	6	E to E+72h	Restore affected Coroner emergency communications capabilities	Public Safety Answering Points	OES, Cal EMA SOC, Private Communications Companies	—
	7	E to E+72h	Establish communications between the Operational Area EOC and the Region II Coroner/Medical Examiner Mutual Aid Coordinator	County Sheriff-Coroner field representative	Coastal REOC/Cal EMA SOC, Region II Coroner/Medical Examiner Mutual Aid Coordinator	—
	8	E to E+72h	Initiate communication and coordination with the hospitals to determine anticipated fatalities from severe injuries	County Sheriff-Coroner, Natividad Medical Center, other hospitals	Public Health	—
	9	E to E+72h	Coordinate with the death care industry (funeral homes, crematoriums, and cemeteries) regarding the anticipated surge in incident related fatalities	County Sheriff-Coroner	CFDA, local law enforcement	—
	10	E to E+72h	Communicate with predominate religious and cultural leaders	County Sheriff-Coroner, Religious Leaders, Cultural Leaders	Natividad Medical Center, hospitals, OES	—
Objective A3 Coordinate and initiate dissemination of public information through the Joint Information Center	11	E to E+72h	Coordinate with and disseminate public information through the Joint Information Center	County Sheriff-Coroner designated Public Information Officer	County Public Information Team; local law enforcement	This task assumes that the OA Joint Information Center has already been established.
	12	E to E+72h	Event Observed: State establishes an 800 number to provide information about fatalities until Family Assistance Centers can be established	Cal EMA SOC	Private Communications Companies	OA/local EOC should confirm this has been established
	13	E to E+72h	Establish a communications system to report missing persons	Local law enforcement	Public Safety Answering Points	This system may not be fully developed at this time.
	14	E to E+72h	Provide public information on family assistance to next of kin	County Sheriff-Coroner designated Public Information Officer	County Public Information Team; Other local law enforcement Teams	—
Objective A4 Submit initial mass fatality resource requests	15	E to E+72h	Identify mass fatality management resource requirements and capabilities	County Sheriff-Coroner	Fire, Local law enforcement, GSD, DGS	—
	16	E to E+72h	Submit initial mass fatality resource requests to Coastal REOC/Cal EMA SOC, including request for deployment of Federal ESF #8 fatality management resources	County Sheriff-Coroner	Region II Coroner/Medical Examiner Mutual Aid Coordinator, OES	—
	17	E to E+72h	Activate surge morgue resources	County Sheriff-Coroner	OES, Cal EMA Coastal REOC/ Cal EMA SOC	—
	18	E to E+72h	Event observed: State activates Coroners' Mutual Aid Special Operations Unit at the SOC and activates the Coroner Mutual Aid System	Cal EMA SOC	Cal EMA Coastal REOC, Region II Coroner/Medical Examiner Mutual Aid Coordinator	—

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective A4 (cont.)	19	E to E+72h	Participate in conference call between the SOC, Region II Coroner/Medical Examiner Mutual Aid Coordinator, and the Coroner to discuss the need for State and Federal resources, including DMORT	Cal EMA SOC, Region II Coroner/Medical Examiner Mutual Aid Coordinator	County Sheriff-Coroner	—
	20	E to E+72h	Proclaim Local Emergency	County Administrative Officer	County OES manager	—
	21	E to E+72h	Event observed: Governor proclaims emergency, official request for support from FEMA Region IX	Cal EMA SOC	—	—
	22	E to E+72h	Event observed: SOC request to activate and deploy DMORT teams and LRATs	Cal EMA SOC, FEMA	HHS	—
	23	E to E+72h	Activate Local SAR and USAR teams.	County Sheriff-Coroner, OES	Local law enforcement, Fire	—
	24	E to E+72h	Event observed: Cal EMA SOC requests support of CFDA, CALDIT, CLECA	Cal EMA SOC	CFDA, CalDIT, CLECA	—
	25	E to E+72h	Event observed: SOC requests SAR and USAR teams through Law Enforcement Mutual Aid	Cal EMA SOC, Coastal REOC	OES	—
	26	E to E+72h	Event observed: SOC requests DoD Mortuary Affairs Unit and Caltrans to assist with the collection and transportation of remains	Cal EMA SOC	DoD, Caltrans, DOT	—
	27	E to E+72h	Event observed: FEMA alerts and activates ESF #8, DMORT assets; ESF #9 (Search and Rescue), SAR; and ESF #8, DoD Mortuary Affairs Unit	FEMA	HHS, DoD	—
	28	E to E+72h	Event observed: Provide list of available DMORT, US&R, and S&R assets to Cal EMA SOC	FEMA, Cal EMA SOC	—	—
	29	E to E+72h	Event observed: Arrival of first mutual aid, State and Federal Assets		FEMA, Cal EMA, OES	—
Objective A5 Conduct scene evaluation at all incident locations and establish field-level incident command structure	30	E to E+72h	Integrate mutual aid, State, Emergency Management Assistance Compact (EMAC), and Federal resources to support mass fatality response operations to locate, recover, secure, track, transport, and store human remains	County Sheriff-Coroner	OES	—
	31	E to E+72h	Event observed: SAR teams arrive on scene and are operational	S&R	FEMA, OES	Life safety priorities will most likely delay use of SAR for recovery.
	32	E to E+72h	Initiate mass fatality operations, including initial scene evaluation, organization, and initial search for remains	County Sheriff/Coroner	Public Safety, , Private sector partners (mortuary staff Deputized/DSW), local law enforcement, US&R, S&R, CFDA, death care industry	—
	33	E to E+72h	Integrate fatality management into the local Incident Command/Unified Command structure	County Sheriff-Coroner, Incident Commander	—	—
	34	E to E+72h	Develop specific fatality management priorities for input into the incident action plan	County Sheriff-Coroner	—	—
	35	E to E+72h	Develop or review plans for incident response	County Sheriff-Coroner	Local law enforcement, CFDA, death care industry	Such as site security and credentialing system, site communication and data management systems, identifying the decedents, issuing death certificates, final disposition system, supply management, fiscal requirements, and public information.
	36	E to E+72h	Determine potential or real fatalities; condition of remains; location and accessibility to site, complicating factors; potential number of remains for autopsy; level of PPE required; specialized search and recovery equipment, and contractors required	County Sheriff-Coroner	Local law enforcement, CHP, CalDIT, death care industry, CFDA	Scene Evaluation Teams

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective A6 Begin the recovery of human remains and personal effects, and temporary storage of human remains	37	E to E+72h	Provide emergency supplies of death certificates, permits for final disposition, and training to county Vital Records staff	CDPH, Vital Records	OES, Coroner, Public Health	—
	38	E to E+72h	Assess the structural integrity of pre-identified mass fatality facilities	County Building Inspection	OES, Cal EMA SOC	—
	39	E to E+72h	Coordinate with transportation authorities regarding the integrity of transportation routes	OES, Department of Public Works	MST, Caltrans, CHP, DOT	—
	40	E to E+72h	Event observed: Establishment of temporary Incident Morgue(s)	County Sheriff-Coroner	Local Private sector partners, Health and Human Services	—
	41	E to E+72h	Decide if selective Altered Standards of Death Care will be implemented	County Sheriff-Coroner	Public Health, OES	—
	42	E to E+72h	Identify requirements for, and establish Fatality Collection Points (FEMA refers to these as Fatality Holding Morgues) that can be used to temporarily hold remains until they can be sent to the incident morgue	County Sheriff-Coroner, Natividad Medical Center, hospitals	OES, Health and Human Services	—
	43	E to E+72h	Determine personnel capacity and needs requirements for fatality collection points, and family assistance centers	County Sheriff-Coroner	OES, local law enforcement, ARC, Social Services Department	—
	44	E to E+72h	Determine fatality management facilities' security capacities and needs	Local law enforcement	County Sheriff-Coroner, OES	—
	45	E to E+72h	Determine transportation resource needs and capacity	County Sheriff-Coroner, Local Transportation Authority	OES	—
	46	E to E+72h	Deploy security personnel to fatality collection points, and storage facilities	Local law enforcement	CHP	—
	47	E to E+72h	Determine human resources and qualifications needed for transportation	County Sheriff-Coroner	DOT, Local Transportation Authority	Ensure drivers have all necessary license requirements.
	48	E to E+72h	Deploy refrigerated trucks that can be used to store and transport remains	County Sheriff-Coroner, Local private sector partners	OES	—
	49	E to E+72h	Establish and execute grid or search pattern for human remains and personal effects	County Sheriff-Coroner	Local law enforcement, OES	Utilize GPS to aid in collection and documentation of post-mortem human remains, property, and evidence at the incident site, when possible
	50	E to E+72h	Document scene in a manner consistent with the incident action plan	County Sheriff-Coroner	Local law enforcement	Photograph, grid, obtain witness statements. Includes Scene Investigation/Human Remains Recovery Officer in Charge, Photography Team, and Documentation Team.
	51	E to E+72h	Document post-mortem human remains and personnel effects	County Sheriff-Coroner	Local law enforcement	Scene Investigation/Human Remains Recovery Officer in Charge, Photography Team Documentation Team, and Property Team would spearhead activity. Private sector partners would include the death care industry, private fatality management, human remains removal services.
	52	E to E+72h	Maintain Chain of Custody, when required	County Sheriff-Coroner	—	—
53	E to E+72h	Gather forensic evidence for fatality management operations	County Sheriff-Coroner	—	—	
54	E to E+72h	Determine level of decontamination needed	Local HazMat, Fire	County Sheriff-Coroner	—	
55	E to E+72h	Establish fatality collection points	County Sheriff-Coroner	Local law enforcement	Assign personnel and transportation assets	
56	E to E+72h	Begin recovery of human remains and personal effects	County Sheriff-Coroner	Local law enforcement, Fire, S&R, OES	—	

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective A6 (cont.)	57	E to E+72h	Conduct environmental assessment of fatality management operations to ensure measures are being taken to protect the environment	County Environmental Health	County Sheriff-Coroner	—
	58	E to E+72h	Recover remains in a dignified manner	County Sheriff-Coroner	Local law enforcement, Fire, S&R	—
	59	E to E+72h	Decontaminate human remains and associated personal effects when applicable	County Sheriff-Coroner	Local HazMat/Fire, County Public Health, Natividad Medical Center, Natividad Medical Center, hospitals	Depending on local policy regarding use of HazMat for decontamination of human remains.
	60	E to E+72h	Transport remains to morgue facilities	Private transport companies	County Sheriff-Coroner	—
	61	E to E+72h	Conduct temporary storage of human remains	County Sheriff-Coroner	Natividad Medical Center, hospitals, death care industry	—
	62	E to E+72h	Sort remains according to cause of death	County Sheriff-Coroner	Natividad Medical Center, hospitals, death care industry	Sort criteria is based on fatality episodic to scenario or not related to scenario
	63	E to E+72h	Package and process personal remains for return of next of kin	County Sheriff-Coroner	Natividad Medical Center, hospitals, death care industry	—
	64	E to E+72h	Conduct victim identification operations	County Sheriff-Coroner	Local law enforcement, CHP, DMV	—
	65	E to E+72h	Develop shifts and staging plans to coordinate limited resources	County Sheriff-Coroner, Incident Commander	OES	—
Objective B1 Expand mobilization of mutual aid resources to support mass fatality response operations	66	E+72h to E+14d	Reassess mass fatality management resource requirements and capabilities	County Sheriff-Coroner	Mutual Aid Resources	—
	67	E+72h to E+14d	Implement shifts and staging plans to coordinate limited resources	County Sheriff-Coroner	Mutual Aid Resources	—
	68	E+72h to E+14d	Expand mobilization of mutual aid resources to support mass fatality response operations	Region II Coroner/Medical Examiner Mutual Aid Coordinator, Sheriff-Coroner	OES, Cal EMA Coastal REOC/ Cal EMA SOC	—
	69	E+72h to E+14d	Event observed: Ongoing recovery of human remains that are not hidden and/or destroyed	Local law enforcement, Fire, death care industry	County Sheriff-Coroner/Coroner	—
	70	E+72h to E+14d	Initiate search and recovery of hidden and/or destroyed human remains	Local law enforcement, Fire, US&R, S&R, death care industry	County Sheriff-Coroner/Coroner	—
	71	E+72h to E+14d	Event observed: Ongoing coordination and dissemination of public information through the Joint Information Center	County PIO Team	OES, Cal EMA Coastal REOC/ Cal EMA SOC	—
Objective B2 Operate morgues and fatality collection points	72	E+72h to E+14d	Event observed: Temporary morgues and fatality collection points are functional and operational	—	—	—
	73	E+72h to E+14d	Assign tracking number to all human remains and personal effects	County Sheriff-Coroner	Local law enforcement	It is extremely important for tracking number to designate a number that is linked back to the county of origin.
	74	E+72h to E+14d	Conduct DNA analysis on human remains that cannot be identified through other means	Private and public laboratories, County Sheriff-Coroner	DOJ, DoD	—
	75	E+72h to E+14d	Initiate reunification of disassociated body parts for all human remains	County Sheriff-Coroner	Death care industry, CFDA, DoD	—
	76	E+72h to E+14d	Coordinate with Vital Records to expedite the issuance of death certificates and permits for final disposition	County Sheriff-Coroner, Vital Records	CDPH	—
	77	E+72h to E+14d	Complete death certificates when positive identification and cause and manner of death have been determined	County Health Department	County Sheriff-Coroner/Coroner/ Medical Examiner, CDPH	County Sheriff-Coroner/Coroner/Medical Examiner must also complete portion of the death certificate after identify of the deceased has been confirmed. Vital Records is typically part of Public Health or Records Office.
	78	E+72h to E+14d	Notify next of kin	County Sheriff-Coroner	Local law enforcement, CHP, Cal EMA Coastal REOC/Cal EMA SOC, foreign consulates, Interpol	If established, Family Resource Centers will participate

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective B3 Expand family assistance services to include the establishment and operation of Family Assistance Center	79	E+72h to E+14d	Release remains to next of kin or to local authorities if no next of kin are identified	County Sheriff-Coroner	Death care industry, Public Administrator	Remains may be released from outside of the county if decedent was transferred to a Regional Incident Morgue.
	80	E+72h to E+14d	Coordinate with the State regarding next of kin notification and collection of antemortem information	County Sheriff-Coroner	CalDIT, local law enforcement, ARC, DOJ	DOJ, Missing Unidentified Persons System
	81	E+72h to E+14d	Expand family assistance services to include the establishment and operation of family assistance centers	County Sheriff-Coroner, CalDIT, CFDA, Red Cross, Salvation Army, ICISF, CLECA, county Social Services Department, CDSS	OES, Cal EMA Coastal REOC/ Cal EMA	To include core management, operations, and administrative teams. Core services include reception/registration; Coroner/ Medical Examiner Services (family briefings, ante mortem data collection, and death notification); mental health services; spiritual care services; first aid/medical services; childcare; and others to meet situational requirements).
	82	E+72h to E+14d	Standardize communications/information management system for collecting, managing, controlling, and sharing of information/data at FAC.	County Sheriff-Coroner	County PIO team, Private Sector Partners	—
	83	E+72h to E+14d	Provide security at family assistance centers	Local law enforcement	Private security companies, CHP, California Military Department	—
	84	E+72h to E+14d	Establish Temporary Repository of Public Records/ Decedent Information Repository	County Sheriff-Coroner	GSD, DGS	—
	85	E+72h to E+14d	Input antemortem victims' records from the FAC	County Sheriff-Coroner	Local law enforcement	—
	86	E+72h to E+14d	Establish antemortem and postmortem databases	County Sheriff-Coroner	—	Medical, dental, and fatality management
	87	E+72h to E+14d	Compare data from morgue(s) and family assistance center(s)	County Sheriff-Coroner	—	—
	88	E+72h to E+14d	Cross-reference morgue data with local/State/Federal/ International missing persons databases and DMV databases	County Sheriff-Coroner	DMV, DOJ	—
Objective C1 Transition to long-term fatality management operations	89	E+72h to E+14d	Deploy critical incident stress management teams to support incident responders, personnel at the regional temporary morgues, fatality collection points, and county morgues, and personnel at the family assistance centers	County Mental Health, CLECA	Local Critical Incident Stress Debriefing teams, Law Enforcement and Fire Chaplaincy	—
	89	E+14d to E+60d	Conduct a final assessment of the site(s) to ascertain whether any human remains are still present	County Sheriff-Coroner	Local law enforcement, CFDA	—
	90	E+14d to E+60d	Event observed: Armed Forces Medical Examiners Office, arrives, to assist with DNA testing of unidentified decedents	DoD	County Sheriff-Coroner/Coroner/ Medical Examiner	—
	91	E+14d to E+60d	Operate family assistance centers at full operational capacities	County Sheriff-Coroner, CalDIT, CFDA, ARC, Salvation Army, ICISF, CLECA, County Social Services Department, CDSS	OES/Cal EMA Coastal REOC, Cal EMA SOC	—
	92	E+14d to E+60d	Continue to release and facilitate final disposition of recovered human remains	County Sheriff-Coroner	—	Remains may be released from outside of the county if decedent was transferred to a temporary morgue within 93Monterey County.
	93	E+14d to E+60d	Coordinate with the SOC regarding repatriation of foreign nationals.	County Sheriff-Coroner	Foreign Consulates, Interpol	—
	94	E+14d to E+60d	Return indigent deceased to the County of origin	County Sheriff-Coroner	Death care industry, CFDA, DOT, Private Transport Companies	—
	95	E+14d to E+60d	Event observed: Communications with Foreign Consulates to provide information about fatality management operations and expedite repatriation of deceased foreign nationals	Department of State, liaison by SOC	Interpol	—
96	E+14d to E+60d	Event observed: Ongoing coordination and dissemination of public information through the Joint Information Center	County PIO team	County Sheriff-Coroner	—	

Table 5-2. Response timeline for mass fatality management.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
Objective C1 (cont.)	97	E+14d to E+60d	Reorder irretrievable resources	County Sheriff-Coroner	OES, Cal EMA Coastal REOC/ Cal EMA SOC	Referencing items that were consumed or lost during incident response.
	98	E+14d to E+60d	Identify fatality management staff post-operational needs	County Mental Health, ICISF	County Sheriff-Coroner, Critical Incident Stress Debriefing teams, Law Enforcement and Fire Chaplaincy	—
	99	E+14d to E+60d	Event observed: Ongoing critical incident stress debriefings	County Mental Health, ICISF	County Sheriff-Coroner, Critical Incident Stress Debriefing teams, Law Enforcement and Fire Chaplaincy	—
	100	E+14d to E+60d	Plan for transition to long-term fatality management operations	County Sheriff-Coroner	OES, Cal EMA Coastal REOC/ Cal EMA SOC, FEMA	—
	101	E+14d to E+60d	Notify mass fatality partners regarding termination of field operations.	County Sheriff-Coroner	OES, Cal EMA Coastal REOC/ Cal EMA	—

A = E to E+72 hours, **B** = E+72 hours to E+14 days, **C** = E+14 days to E+60 days

— = Not applicable	DoD = Department of Defense	ICS = Incident Command System
ARC = American Red Cross	DOJ = California Department of Justice	LRAT = Regional Logistical Response Assistance Teams
CalDIT = California Dental Inspection Team	DOT = U.S. Department of Transportation	NGO = nongovernmental organization
Cal EMA = California Emergency Management Agency	E = Event	PIO = Public Information Officer
CDPH = California Department of Public Health	EOC = Emergency Operations Center	REOC = Regional Emergency Operations Center
CDSS = California Department of Social Services	FAC = family assistance center	SOC = State Operations Center
CFDA = California Funeral Directors Association	FEMA = Federal Emergency Management Agency	OES = Office of Emergency Services
CHP = California Highway Patrol	GSD = County General Services Department	S&R = Search and Rescue
CLECA = California Law Enforcement Chaplains Association	h = hours	US&R or USAR = Urban Search and Rescue
DGS = State Department of General Services	HHS = U.S. Department of Health and Human Services	
DMV = Department of Motor Vehicles	ICISF = International Critical Incident Stress Foundation	

6 Plan Maintenance

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

6.1 Plan Distribution

Monterey County OES will maintain a record of amendments, revisions, and executable versions of all documents, and will be responsible for distributing the plan to all applicable agencies.

6.2 Plan Updates

Monterey County OES is responsible for the maintenance, revision, and distribution of the Monterey County EOP and its annexes. Monterey County OES will annually assess the need for revisions to the EOP and annexes based on the following considerations:

- Changes to local regulations, requirements, or organization
- Implementation of tools or procedures that alter or improve upon plan components

6.3 Plan Testing, Training, and Exercises

Training for staff on this plan will be integrated into routine EOC and SEMS training. Exercising the plan and evaluating its effectiveness involves using training and exercises and evaluation of actual events to determine whether goals, objectives, decision, actions, and timing outlined in the plan led to a successful response.

Exercises are the best method of evaluating the effectiveness of a plan and are also a valuable tool in the training of 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. Monterey County OES is responsible for planning and conducting emergency exercises for the Operational Area.

Exercises will be conducted on a regular basis to maintain readiness. Exercises should include as many local government agencies as practical.

6.4 After-Action Report

After every exercise or event, an After-Action Report (AAR)/Improvement Plan should be completed. The AAR has two components: an AAR, which captures observations

and recommendations based on incident objectives as associated with the capabilities and tasks, and an Improvement Plan, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion. Monterey County OES is the lead agency for the development of the AAR/Improvement Plan. OES will convene event participants to discuss action items and solicit recommendations for improvement.

Appendix A: Glossary

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Appendix A: Glossary

Acronyms and Abbreviations

AAR.....	After-Action Report
ACS.....	Alternate Care Site
AMR.....	American Medical Response
ARC.....	American Red Cross
CA-EDRS.....	California Electronic Death Registration System
CalDIT.....	California Dental Identification Team
Cal EMA.....	California Emergency Management Agency
CAL FIRE.....	California Department of Forestry and Fire Protection
CBO.....	community-based organization
CBRNE.....	chemical, biological, radiological, nuclear, or high-yield explosive
CDPH.....	California Department of Public Health
CDSS.....	California Department of Social Services
CFDA.....	California Funeral Directors Association
C.F.R.....	Code of Federal Regulations
CHP.....	California Highway Patrol
CLECA.....	California Law Enforcement Chaplains Association
CSSA.....	California State Sheriffs' Association
CUC.....	Field Coroner Unit Coordinator
CWS.....	Community Warning System
DGS.....	(State) Department of General Services
DHS.....	U.S. Department of Homeland Security
DMAT.....	Disaster Medical Assistance Team
DMORT.....	Disaster Mortuary Operational Response Team
DMV.....	Department of Motor Vehicles
DOC.....	Department Operations Center
DoD.....	Department of Defense
DOJ.....	California Department of Justice
DOT.....	U.S. Department of Transportation
DPMU.....	Disaster Portable Morgue Units
E.....	Event
EDRS.....	California Electronic Death Registration System
EHS.....	Employment and Human Services
EMMA.....	Emergency Managers Mutual Aid
EOC.....	Emergency Operations Center

EOP	Emergency Operations Plan
EPA.....	U.S. Environmental Protection Agency
ESF.....	Emergency Support Function
FAC.....	Family Assistance Center
FBI.....	Federal Bureau of Investigation
FBO	faith-based organization
FEMA	Federal Emergency Management Agency
FRO	First Responder Operations
GIS	Geographic Information System
GPS.....	Global Positioning System
GSD	County General Services Department
HazMat.....	hazardous materials
HAZUS	Hazards U.S.
HCC	Hospital Command Center
HEPA.....	high-efficiency particulate air
HHS.....	U.S. Department of Health and Human Services
HICS	Hospital Incident Command System
HIV.....	human immunodeficiency virus
HMRU	FBI Hazardous Material Response Unit
IAP	Incident Action Plan
ICISF	International Critical Incident Stress Foundation
ICPC	International Conference of Police Chaplains
ICS.....	Incident Command System
IED	improvised explosive device
IR.....	Incident Response
IRC	Information Resource Center
JFO	Joint Field Office
JIC.....	Joint Information Center
JIS	Joint Information System
LRAT	Logistics Response Assistance Team
LTCF.....	Long term care facility
M	Moment Magnitude
MM.....	Modified Mercalli
MACS	Multi-Agency Coordination System
MCDSSES.....	Monterey County Department of Social and Employment Services
MFI.....	mass fatality incident
MJHMP.....	Monterey County Multi-Jurisdictional Hazard Mitigation Plan
MM.....	Modified Mercalli

MMRS	Metropolitan Medical Response System
MST	Monterey-Salinas Transit District
MOUs	Memoranda of Understanding
NDMS.....	National Disaster Medical System
NGO	nongovernmental organization
NWS	National Weather Service
OES	Monterey Office of Emergency Services
OIC	Coroner Officer in Charge
OSHA	Occupational Safety and Health Administration
PAPR.....	powered air-purifying respirators
PE.....	Personal Effects
PH	Monterey County Public Health Division
PIO	Public Information Officer
Plan	Monterey County Catastrophic Incident Mass Fatality Plan
PPE.....	Personal Protective Equipment
RCPGP.....	Regional Catastrophic Preparedness Grant Program
RECP	Regional Emergency Coordination Plan
ReGIS	Monterey County Regional GIS
REOC	Regional Emergency Operations Center
RIMS	Response Information Management System
SA.....	Salvation Army
S&R or SAR.....	Search and Rescue
SCBA	self-contained breathing apparatus
SEMS.....	Standardized Emergency Management System
SEP.....	State of California Emergency Plan
SITSTAT.....	County EOC Situation Status Unit
SNF.....	skilled nursing facility
SOC	State Operations Center
UASI.....	Urban Area Security Initiative
USAR, US&R.....	Urban Search and Rescue
U.S.C.	U.S. Code
vFAC.....	virtual Family Assistance Center
WMD	Weapons of Mass Destruction

Key Terms

Catastrophic event. Any natural or manmade incident, including an act of terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.

Coroner. A Coroner is a public officer whose primary function is to investigate by inquest any death thought to be of other than natural causes.

Death care industry. The death care industry includes funeral home or mortuary services, cremation services, and cemetery services. These services are locally owned and corporately owned licensed businesses that comply with local, State, and Federal laws applicable to the handling of human remains.

Disaster Medical Assistance Team (DMAT). A Disaster Medical Assistance Team is a group of professional and paraprofessional medical personnel organized to provide rapid-response medical care or casualty decontamination during a terrorist attack, natural disaster, or other incident in the United States. DMATs are part of the National Disaster Medical System and operate under the Department of Health and Human Services.

Disaster Mortuary Operational Response Team (DMORT). A Disaster Mortuary Operational Response Team is a Federal response team comprising private citizens, each with a particular field of expertise (e.g., Coroner, dental assistant, fingerprint specialist), who are activated in the event of a disaster to provide technical assistance and personnel to recover, identify, and process the decedents.

Family Assistance Center (FAC). A secure facility where staff can provide information about missing persons who may be victims of the disaster, facilitate collecting information about missing persons, and facilitate the reunification of the deceased with next of kin.

Fatality. Death resulting from a disaster. This Plan also uses the terms dead, decedent, and human remains to refer to a human fatality.

Final disposition. The burial, interment, cremation, or other final disposition of human remains.

Joint Information Center (JIC). As described in NIMS, a Joint Information Center coordinates all event-related public information activities and is the central point of contact for all news media. Joint Information Centers may be established locally, regionally, or nationally depending on the size and magnitude of the event.

Joint Information System (JIS). As described in NIMS, a Joint Information System integrates event information and public affairs into a cohesive organization designed to provide consistent, coordinated, accurate, accessible, timely, and complete information during crisis or event operations.

Logistical Response Assistance Team (LRAT). Logistical Response Assistance Teams are responsible for maintaining and deploying the equipment caches for all National Disaster Medical System teams, including DMORT, DMAT, and the Veterinary teams.

Mass fatality incident (MFI). As defined in the California Mass Fatality Management Guide, a mass fatality incident is one in which the loss of life overwhelms the California Coroner Mutual Aid System and requires extraordinary support from State, Federal, and private resources.

Medical Examiner. A Medical Examiner is a public official who investigates by inquest any death not due to natural causes, is a qualified physician, often with advanced training in forensic pathology (the application of medical knowledge to questions of the law), and usually serves in an appointed position.

Morgue. A place where dead bodies are kept until identified and claimed or until arrangements for final disposition have been made.

Personal protective equipment (PPE). Specialized clothing or equipment worn by employees for protection against health and safety hazards.

Public Administrator. A legally mandated office of county government for every county in California. The Public Administrator serves in a fiduciary capacity to distribute the assets of estates of county residents who have passed away when no personal representative is appointed as administrator. The Public Administrator is involved only as a last resort when there is no one else with higher authority to act.

Public information. Communication with the general public to provide information on evacuations.

Regional Incident Morgue. A fully equipped mobile morgue that supports specially trained teams to provide morgue support to county Coroners/Medical Examiners who are affected by an event (e.g., earthquake). Coroners/Medical Examiners can opt in or opt out of Regional Incident Morgue participation. If the impacted Coroners/Medical Examiners opt into the Regional Incident Morgue, their primary responsibility is to prepare the decedents for transport to the incident morgue, assign a county-specific identification code, transport the decedent to the Regional Incident Morgue, and sign death certificates.

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Appendix B: Maps

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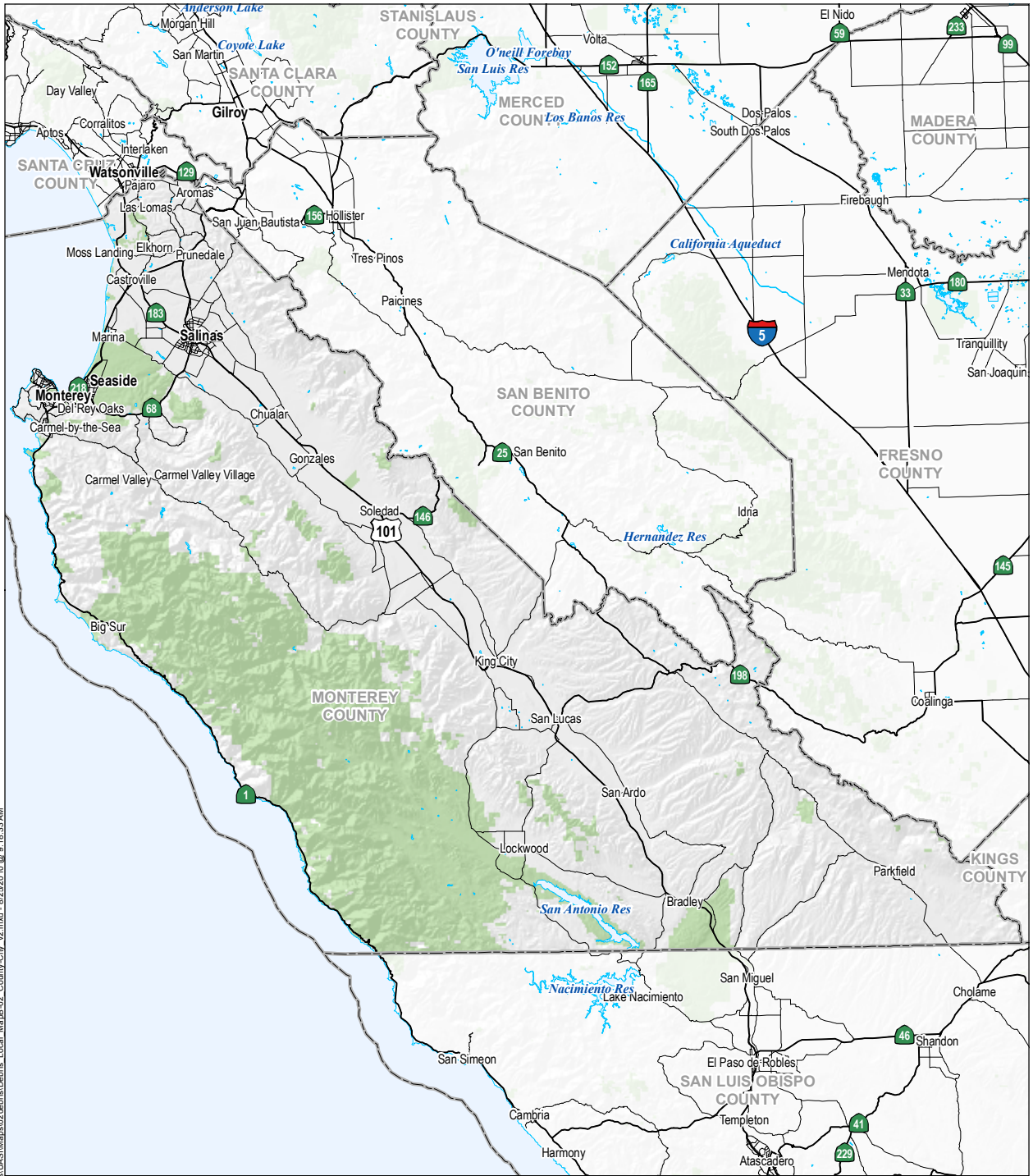
Table of Contents

Map B-1	Twelve-county San Francisco Bay Area region
Map B-2	Monterey County
Map B-3	Shaking intensity
Map B-4	Landslide susceptibility in Monterey County
Map B-5	Surface transportation system damage: Monterey County
Map B-6	Hospitals and morgues in Monterey County
Map B-7	California Emergency Management Agency Administrative and Mutual Aid Regions

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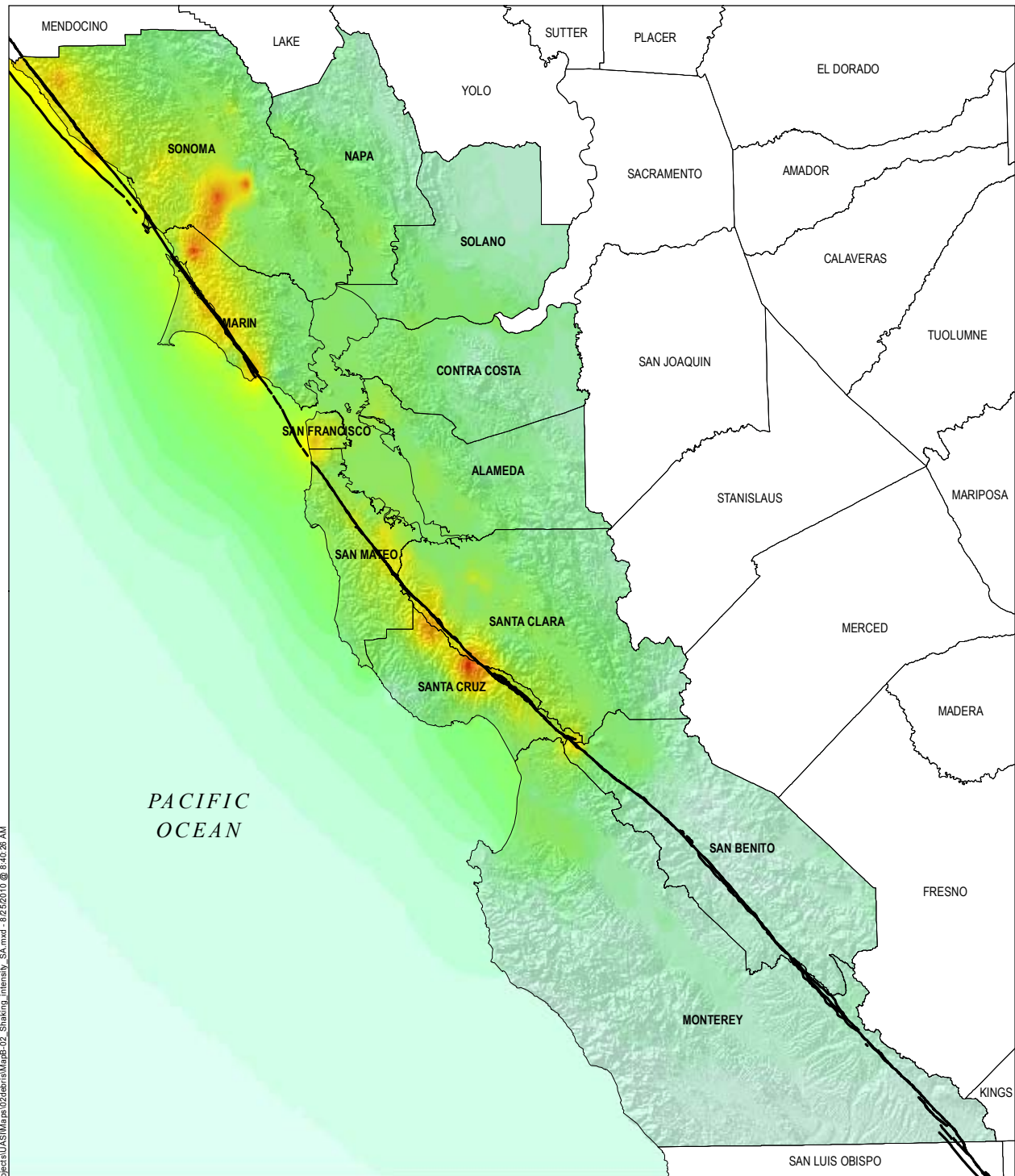


Data sources
 Public lands: Legacy Project 2003
 Topography: USGS National Elevation Dataset, 30-m hillshade

- | | | | |
|--|-----------------|--|-------------|
| | County boundary | | Public land |
| | Highway | | Water body |
| | Road | | Stream |

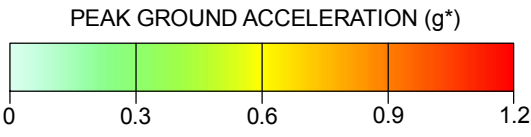
Bay Area UASI Program
 Regional Catastrophic Preparedness Grant Program

Map B-2
 Monterey County



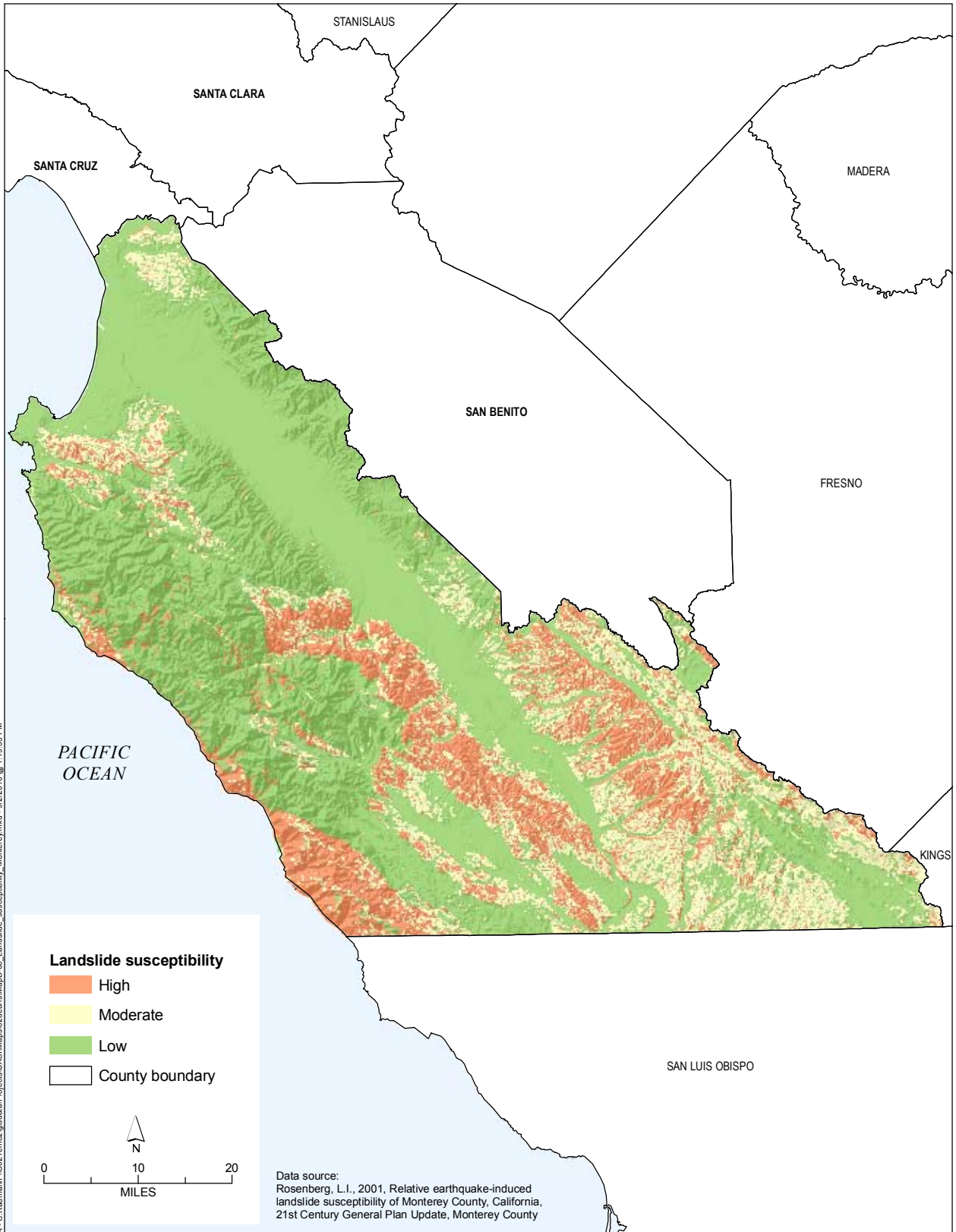
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*g = 980 centimeters/second/second (units of gravitational acceleration)
 Topographic data source: USGS NED
 Fault data source: USGS, 2006

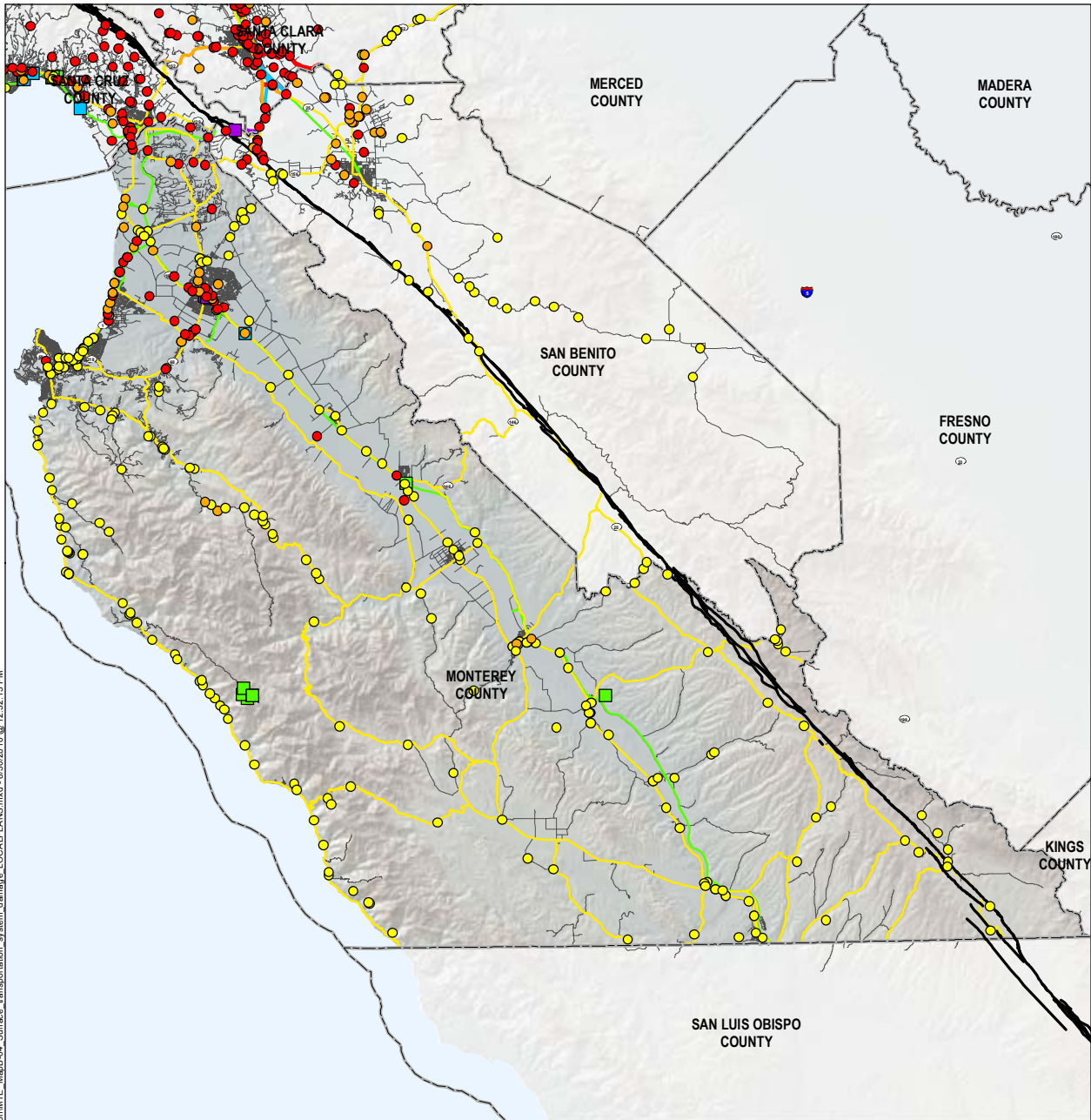


Bay Area UASI Program
 Regional Catastrophic Preparedness Grant Program

Map B-3. Shaking intensity
 Peak ground acceleration; Scenario: **M 7.9** San Andreas fault earthquake
 1906 Modified Mercalli Intensity



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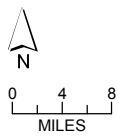
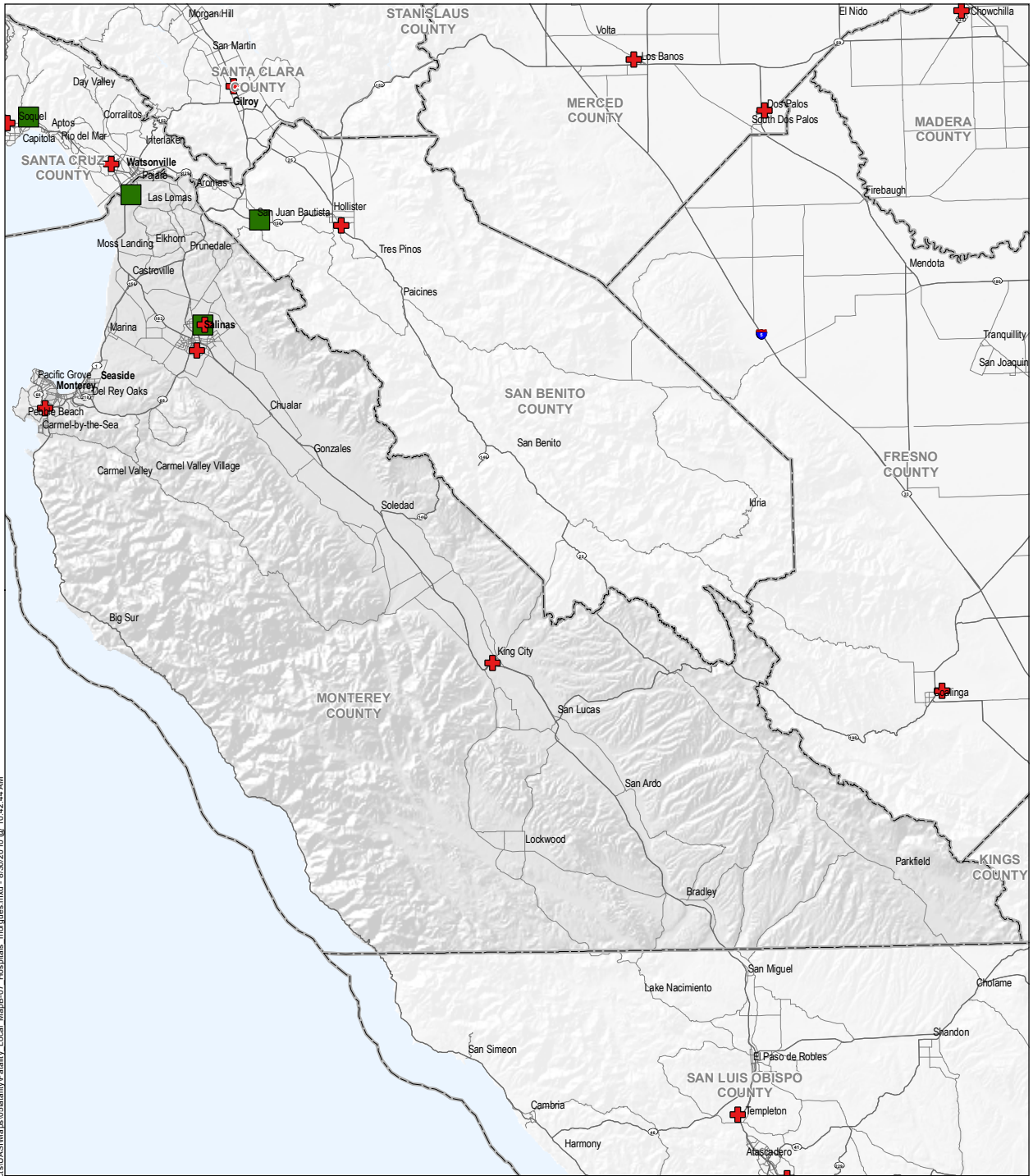







- Notes:**
1. Functionality, Day 1 is expressed as the probability that a given highway, railway, or bridge segment will be functional at Day 1.
 2. HAZUS default transportation
 3. Road data source: HCIP Gold, 2007
 4. Fault data source: USGS, 2006
 5. Topographic data source: USGS NED

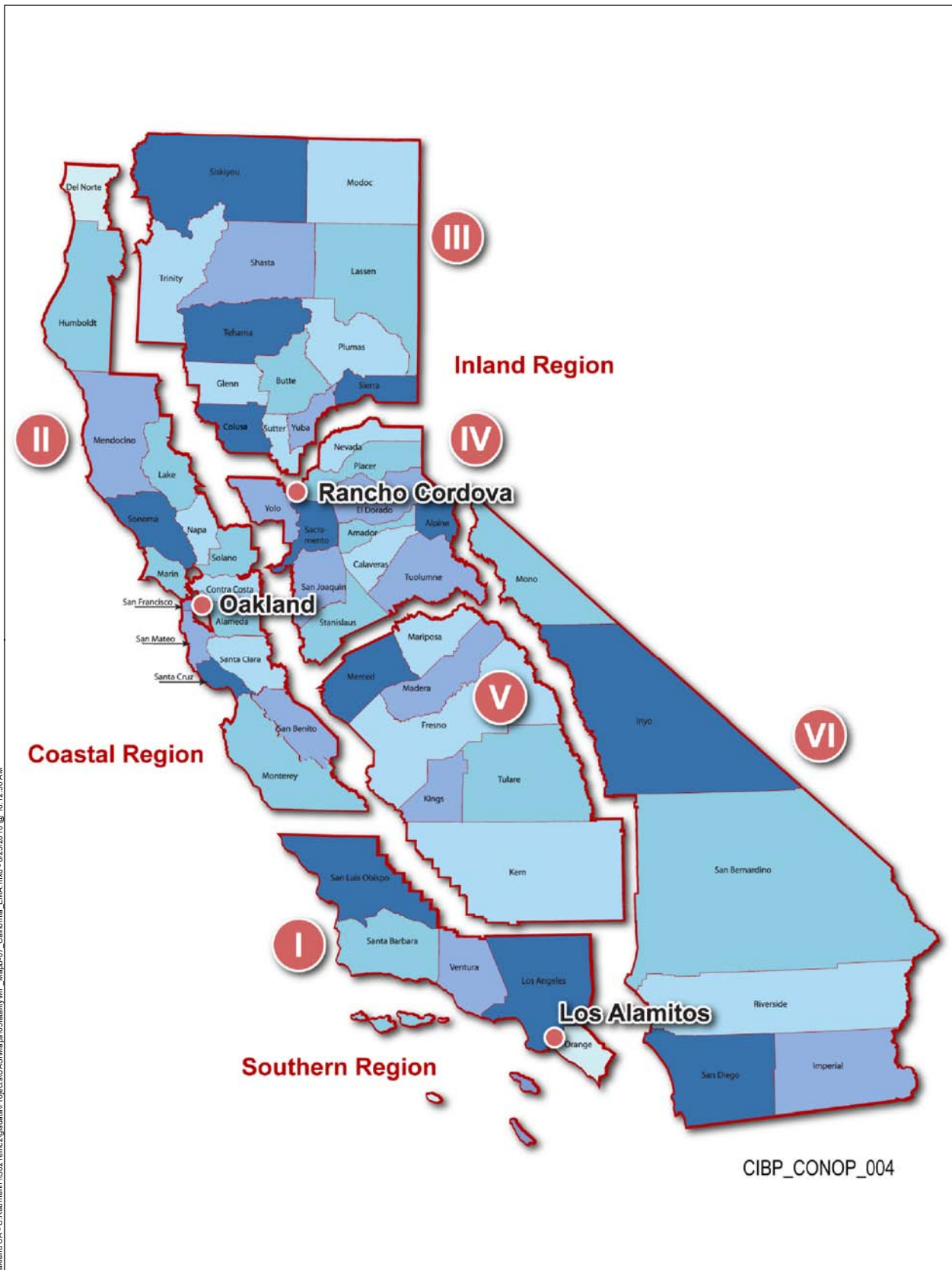
Functionality, Day 1		County boundary
Highway bridges	Highways	Road
< 90%	< 90%	San Andreas fault zone
90 - 95%	90 - 95%	
95 - 100%	95 - 100%	
Railway bridges	Railways	
< 90%	< 90%	
90 - 95%	90 - 95%	
95 - 100%	95 - 100%	

Bay Area UASI Program
Regional Catastrophic Preparedness Grant Program

Map B-5
 Surface transportation system damage: Monterey County
 Scenario: **M** 7.9 San Andreas fault earthquake
 1906 Modified Mercalli Intensity



-  Hospital
-  Morgue
-  County boundary
-  Highway
-  Road



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Appendix C:
Information Collection Plan for Mass Fatality

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Table of Contents

C1	Information Collection Priorities	C-1
C1.1	E to E+72 Hours	C-1
C1.2	E+72 Hours to E+14 Days	C-1
C1.3	E+14 Days to E+60 Days	C-1
C2	Responsibilities for Information Collection and Dissemination	C-1
C3	Information Collection Procedures	C-3
C4	Critical Information Needs	C-4

List of Tables

Table C-1	Critical information collection requirements for Monterey County mass fatality operations	C-5
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Appendix C: Information Collection Plan for Mass Fatality

This appendix describes Monterey County’s Information Collection Plan for the response to mass fatalities from a catastrophic earthquake, as outlined in **Section 2.1** of the main document. The plan describes the types of information necessary for senior leaders, emergency managers, EOC staff, and Incident Commanders to understand the situation and make decisions regarding response priorities and resource allocations. **Table C-1** provides a chronological list of critical information that must be collected to support the response.

C1 Information Collection Priorities

The information plan for mass fatality operations reflects the priorities listed below.

C1.1 E to E+72 Hours

Information collection priorities for this phase are:

- Initial assessment of the situation
- Information regarding the status of facilities and resources
- Existing capabilities and resource needs

C1.2 E+72 Hours to E+14 Days

Information collection priorities for this phase are:

- Additional information regarding the status of facilities and resources
- Information regarding the request, deployment, and integration of outside resources
- Continued evaluation of capabilities and the identification of needs
- Ongoing updates of the status of the situation

C1.3 E+14 Days to E+60 Days

Information collection priorities for this phase are:

- Additional information regarding the status of facilities and resources
- Information regarding the integration of outside resources
- Continued evaluation of capabilities and identification of needs
- Ongoing updates of the status of the situation

C2 Responsibilities for Information Collection and Dissemination

The Monterey County Emergency Operations Plan (EOP) describes responsibilities for information collection and dissemination. In accordance with the EOP, responsibilities

for information collection and dissemination, as they pertain to the mass fatality response to the earthquake, are the purview of the Monterey County Coroner's Office. The mass fatality aspect of the earthquake is only one of several simultaneous problems caused by the event. Nevertheless, until proven otherwise, a fatality may be a potential crime to be investigated by the Monterey County Coroner's Office. Furthermore, notifying families about the death of a family member is a delicate matter. The best way to ensure the care and respect to survivors is to centralize the release of information through the Coroner's Office. Since this information is only an aspect of the greater earthquake response, the Coroner's Office will ensure that a representative will be imbedded in the Joint Information Center.

The following agencies are identified as supporting the general information collection processes of the Operational Area EOC:

- County Department of General Services, Central Services Division (Purchasing). Responsible for assimilating information for the County EOC Situation Status Unit (SITSTAT) regarding government purchasing capabilities that ensure that departments needing to make disaster-related purchases can take advantage of pre-existing contracts where possible.
- County Department of General Services, Utilities Division. As part of the County EOC SITSTAT Unit, assists with identifying utility disruptions and their effect on mass fatality operations requiring power or other utilities and disseminating this information to the local EOCs.
- County Department of Information Technology. As part of the Logistics function in the County EOC, responsible for ensuring that county communications systems function post-event; coordinates with other political subdivisions regarding the same with other political subdivisions in the county.
- County Department of Resource Management, Planning Services Division. Supports the County EOC SITSTAT Unit with general data collection throughout the Monterey County Operational Area and jurisdiction-specific information to support long-range planning activities; assists with the development of demographic profiles of neighborhoods experiencing high death rates.
- County Office of Emergency Services. Supports the County EOC Logistics Section with the collection of status information from the County and other key local governments regarding staffing levels and availability.
- County Office of Emergency Services. Supports the County EOC SITSTAT Unit with the collection of information from key government entities within the Monterey County Operational Area and at the State and Federal levels.
- Local Building Department. As part of the Damage Assessment Unit within the Engineering Branch, supports the assessment of damaged building for the purposes of body recovery; assists with the development of demographic profiles of neighborhoods experiencing high death rates, and communicates this

information to SITSTAT. A Technical Specialist may need to be assigned to SITSTAT to support the aggregation and collation of information.

- Local Emergency Managers. Responsible for ensuring the collection and aggregation of information regarding mass fatality operations such as the location of deceased victims; coordinates with County OES regarding key information affecting the jurisdiction's operations and outside aid.
- Local Planning Department. Supports general data collection and jurisdiction-specific information to support long-range planning activities; assists with the development of demographic profiles of neighborhoods experiencing high death rates. A Technical Specialist may need to be assigned to SITSTAT to support the aggregation and collation of information.
- Operational Area Fire and Rescue Technical Specialist. Assigned to the County EOC SITSTAT Unit, supports the aggregation and collation of information related to the Fire and Rescue activities throughout the Operational Area related to the event.
- Operational Area Law Enforcement Technical Specialist. Assigned to the County EOC SITSTAT Unit, supports the aggregation and collation of information related to the law enforcement activities (including Coroner operations) throughout the Operational Area related to the event.
- Monterey County Coroner's Office. Provides incident-specific information that does not compromise any investigations or the privacy of families of decedents; ensures that releasable incident information is provided to SITSTAT.
- Monterey County Emergency Communications Activities representatives. Although not a formal government agency, this group can support the County EOC with information collection and problem solving related to Operational Area communications systems.
- Monterey County Regional GIS (ReGIS). Assigned to the County EOC SITSTAT Unit, agency staff will support information gathering activities and provide GIS support accordingly. Can provide plot maps to illustrate body recovery activities based on geo-coordinate information.
- Monterey-Salinas Transit District (MST). Assigned to the County EOC SITSTAT Unit, will collect information from transit providers, Departments of Public Works, law enforcement agencies, and Caltrans regarding the impacts to the transportation system and the effect on mass fatality operations.

C3 Information Collection Procedures

The Monterey County EOP describes procedures for information collection and dissemination. In accordance with the EOP, these procedures, as they pertain to the earthquake, are the same as for any hazard. In this scenario, a combination of personnel will staff the situation Status Unit of the planning section and gather

information from routine professional sources, adjacent local jurisdictions, and related disciplines. Checklists for the SITSTAT Unit are contained in the Monterey County EOC SOPs document.

C4 Critical Information Needs

Table C-1 provides a chronological list of critical information needs for the response.

Table C-1. Critical information collection requirements for Monterey County mass fatality operations

Critical Information	Specific Information	Methodology/Source	Responsible Entity	Product	Timeline
1 Mass Fatality Incident Locations	<ul style="list-style-type: none"> Address or landmark describing each location where mass fatality operations are being conducted Estimated or confirmed number of deceased at each location Any unique challenges hindering the identification and recovery of remains Location of Incident Command Posts 	<ul style="list-style-type: none"> Incident Command Situation Reports Media reports Operational Area Situation Reports GIS maps 	On scene Coroner lead, Operational Area EOC	<ul style="list-style-type: none"> Situation report Status briefing 	Initial estimate within 4 hours; updated every operational period
2 Hazard-specific information Hazardous, toxic, and radiological issues Safety hazards	<ul style="list-style-type: none"> Presence and extent of fires Number/estimate of collapsed structures potentially requiring urban search and recovery Actual and potential releases of hazardous materials Personal safety issues and requirements Public health concerns 	<ul style="list-style-type: none"> Incident Command Situation Reports Operational Area EOC Situation Reports 	On scene Coroner lead, Operational Area EOC	<ul style="list-style-type: none"> Situation report Status briefing Safety briefings/messages 	Initial estimate within 4 hours; updated every 12 hours
3 Weather	<ul style="list-style-type: none"> Post-incident forecast and implications for impeding operations 	<ul style="list-style-type: none"> NWS 	—	<ul style="list-style-type: none"> Status briefings Situation reports Daily intelligence summaries 	As soon as possible after the event; ongoing, as required
4 Missing persons	<ul style="list-style-type: none"> Number/type of housing units in impacted areas Estimated number of people in damaged buildings Mission persons list 	<ul style="list-style-type: none"> Facility Personnel or resident rosters Family Assistance Inquiry Centers Media reports Census data 	Operational Area EOC	<ul style="list-style-type: none"> Rosters Missing person reports 	Family Assistance Inquiry Centers should be established in the Operational Area to take calls regarding missing persons. These operations should begin within the first 12 hours after the earthquake and continue for 24-48 hours.
5 Family Assistance Centers	<ul style="list-style-type: none"> Location of FAC Services provided at each center Information to bring to the centers Sources of assistance outside the FAC 	<ul style="list-style-type: none"> Operational Area EOC Situation Reports Media reports NGO liaisons 	Operational Area EOC, Coroner	<ul style="list-style-type: none"> Status briefings Situation reports Daily intelligence summaries 	An FAC will be activated for the County. Some FACs will be operated by the Operational Areas while a few will be co-located with the Regional Incident Morgues. Activations will occur within the first 72 hours
6 Predictive modeling	<ul style="list-style-type: none"> What HAZUS models show for damage impacts and casualties and fatalities 	HAZUS outputs	—	GIS products	No later than 2 hours after event
7 Status of Coroner/Medical Examiner critical infrastructure and facilities	<ul style="list-style-type: none"> Status of morgue(s) Status of hospital morgues 	<ul style="list-style-type: none"> Operational Area EOC situation reports Medical/Health DOC situation reports 	—	<ul style="list-style-type: none"> Situation briefings Situation reports 	Initial estimate within 4 hours; updated every 12 hours
8 Status of key personnel/personnel issues	<ul style="list-style-type: none"> Staffing needs for response operations 	<ul style="list-style-type: none"> Operational Area EOC reports Formal Mutual Aid requests 	Operational Area Coroner/Medical Examiner Mutual Aid Coordinator	—	Within 2 hours after Disaster Declaration; request made to the Region II Coroner/Medical Examiner as necessary
9 Status of key partner agencies in response	<ul style="list-style-type: none"> Vendors and government contractors NGOs with agreements 	<ul style="list-style-type: none"> Contracts and agreements 	—	<ul style="list-style-type: none"> Contract services Pre-arranged statements of agreement 	Initial estimate within 4 hours
10 Priorities for response—upcoming activities	<ul style="list-style-type: none"> Operational priorities Priorities: water, food, power, medical, search and recovery, communications 	<ul style="list-style-type: none"> Operational Area EOC reports Field mass fatality response team reports Coroner/Medical Examiner 	—	<ul style="list-style-type: none"> Situation briefings Situation reports 	Initial estimate within 4 hours after event; updated every operational period

Table C-1. Critical information collection requirements for Monterey County mass fatality operations

Critical Information	Specific Information	Methodology/Source	Responsible Entity	Product	Timeline
11 Questions the media may ask regarding Mass Fatality operations	<ul style="list-style-type: none"> How many deceased have been recovered at each location How long should the recovery take How many of the deceased have been positively identified How many have been released 	<ul style="list-style-type: none"> Incident Command Situation Reports Operational Area EOC Situation Reports 	Coroner/Medical Examiner	<ul style="list-style-type: none"> Situation briefings Situation reports 	Situation briefings occur twice a day, mornings and evenings, at the Family Assistance Centers – situation reports will be submitted at the beginning of each operational period
12 Major issues/shortfalls	<ul style="list-style-type: none"> Actual or potential resource shortfalls of the Operational Area Anticipated requirements Potential sources for filling resource shortfalls Resources available and locations of resources 	<ul style="list-style-type: none"> Operational Area EOC reports Cal EMA SOC reports 	—	<ul style="list-style-type: none"> Situation briefings Situation reports 	Initial assessment within 4 hours after event; updated every operational period

Cal EMA = California Emergency Management Agency
 EOC = Emergency Operations Center
 FAC = Family Assistance Center
 GIS = Geographic Information Systems

HAZUS = Hazards U.S.
 NGO = nongovernmental organization
 NWS = National Weather Service
 SOC = State Operations Center

Appendix D: Toolkit

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Table of Contents

Example Morgue Station Protocols

D1	Triage Station Protocol	D-1
D2	Administration Station Protocol	D-2
D3	Receiving Station Protocol	D-2
D4	Morgue Human Remains Receiving and Sanitation Protocol	D-3
	D4.1 Human Remains Receiving	D-3
	D4.2 Sanitation Protocol	D-3
D5	Temporary Human Remains and Personal Effects Removal Protocol	D-4
D6	Permanent Human Remains and Personal Effects Removal Protocol	D-4
D7	Decontamination Protocol (When Necessary)	D-5
D8	Photography Station Protocol (Human Remains and Personal Effects)	D-6
D9	Radiology Station Protocol	D-7
D10	Dental – Odontology Identification Station (Postmortem – Morgue Operations)	D-8
	D10.1 Dental/Odontology Identification (Antemortem – Family Assistance Center)	D-8
D11	Autopsy/Pathology Station Protocol	D-9
D12	Forensic Anthropology Station Protocol	D-9
	D12.1 Forensic Anthropology Cleaning Protocol	D-10
D13	DNA Station Protocol	D-10
D14	Runner Protocol	D-11
	D14.1 General.....	D-11
	D14.2 Photography Runner	D-12
	D14.3 Autopsy/Pathology Runner.....	D-12
	D14.4 Forensic/Anthropology Runner.....	D-12
	D14.5 DNA Runner	D-12
D15	Evidence Walk-Through Protocol	D-12
D16	Library Protocol	D-13
	D16.1 General.....	D-13
	D16.2 Antemortem Records – Dental and Medical	D-13
	D16.3 Postmortem Records – Dental	D-14
	D16.4 File QA/QC Protocol.....	D-14

County Mass Fatality Management Forms

County Coroner Initial Start Up Form.....	D-19
DNA Family Reference Collection Form	D-21
Potential Living Biological Donors Form for Nuclear DNA Analysis	D-23
Remains Release Authorization Form	D-25

City Procedures to be Followed Prior to Coroner Arrival..... D-27

Disaster Mortuary Operations Response Team (DMORT) Forms

Site Recovery Record Form..... D-33
Tracking Form..... D-35
Personal Information Form (8 pages) D-37
Clothing Inventory Form..... D-45
Jewelry Inventory Form..... D-47
Fingerprints Form D-49
Radiology Form D-51
Pathology Form (3 pages) D-53
Anthropology Form (2 pages) D-57
DNA Specimen Form D-59

Example Morgue Station Protocols

This appendix contains protocols and forms that can be used by the Sheriff-Coroner and Disaster Mortuary Operational Response Teams in the management of mass fatalities after a disaster. The protocols and forms are examples only and are not mandated for use for any jurisdiction.

The example morgue protocols are based on the protocols developed by DMORT III to document the Incident Morgue operations for the United Airlines Flight 93 response. They do not reflect a formal DMORT protocol.

D1 Triage Station Protocol

1. Open bags are delivered from incident sites.
2. Team sorts through materials to separate human tissue from other material.
3. Isolated personal effects are routed to [AGENCY].
4. All items of evidentiary value (e.g., possible fragments of weapons) are routed to [AGENCY].
5. Human remains are reviewed for further analysis. The remains may include the following:
 - Tissue that will not yield any information in one or more of the following areas:
 - Autopsy – Pathology (e.g., identification, pathology, injury)
 - Forensic Anthropology (e.g., age, sex, stature, ancestry)
 - Dental – Odontology
 - Fingerprint or footprint analysis
 - DNA identification; consult DNA Station for guidelines
 - Tissue with the potential for further identification is placed in a bag and the Victim Processing Record is checked in the left margin to indicate the Stations where the remains should be routed. All remains go to Photography and Radiography. Remains go to the DNA Station when necessary.
 - The triage scribe signs and dates the Victim Processing Record. The remains are routed to the Receiving Station.
6. Human remains associated with personal effects are treated as follows:
 - The personal effects are removed from the human remains as long as removal will not damage or compromise the remains. Notation about the clothing is entered into the comments section of the Victim Processing Record and the clothing is turned over to [AGENCY].
 - If the human remains are suitable for further analysis, they are processed through the regular channels. [AGENCY] is informed that the human

remains will be assigned a case number in the Receiving Station, and they should accompany the remains to the Receiving Station to obtain that number.

- If the remains are not suitable for further analysis, they are placed in the common tissue red barrel.
- For remains where the personal effects cannot be removed without possible damage, notify the [AGENCY], and leave effects associated with tissue. Mark “[AGENCY]” in red marker on the Victim Processing Record. Send remains through procedures described above. [AGENCY] receives the remains after all other relevant Stations have signed off. These remains may be expedited through the systems at the request of the [AGENCY].

D2 Administration Station Protocol

1. Coordinate with the Incident Morgue Manager.
2. Maintain Victim Processing Records for all decedents.
3. Verify accuracy of records, consistent case numbers, and signatures for all Victim Processing Records.
4. Confirm completion of the Identification Summary Report.
5. Ensure Sheriff-Coroner signs death certificate.
6. Coordinate with the Family Assistance Center for the release of decedents.
7. Deliver required reports to Sheriff-Coroner.

D3 Receiving Station Protocol

1. Receive human remains from Triage Station.
2. Record next sequential case number available and other identifying information from the scene on the flip chart.
3. Label human remains pouch with assigned case number. Do not put provenience or scene information on the bag; put only the case number.
4. Create a folder with the assigned case number. Place appropriate paperwork, as indicated on the Victim Processing Record, inside the folder. Number all paperwork appropriately.
5. Create a case number tag with the assigned case number. Place the case number tag in the folder, NOT in the human remains pouch.
6. Staple Victim Processing Record to front of file. Initial this form.
7. If human remains are determined to be unrelated at any Station, separate them and return to the Triage Station for assessment according to the following:
 - One specimen is designated by the original case number.

- The second specimen is admitted into the identification process according to the above procedures and received new paperwork.
- All paperwork for each specimen should have a reference to the case number of the other specimen.

D4 Morgue Human Remains Receiving and Sanitation Protocol

D4.1 Human Remains Receiving

- 1.** Remains are delivered in human remains pouches from the incident site. These are weighed and placed in cold storage area #1.
- 2.** As the Triage Station is ready, the human remains are brought in at a gradual rate so that materials do not sit out in ambient temperature any longer than necessary.
- 3.** After the remains are processed through all stations, they are stored in sequential incident case numbers in cold storage area #2.
- 4.** For Quality Assurance, the common tissue remains are x-rayed and reviewed by the Autopsy/Pathology Station. Remains identified as important may be pulled from the human remains pouches and returned to the Triage Station for reassessment. Once Quality Assurance has been completed, the common tissue remains are bio-sealed in larger bags. These bio-sealed bags are numbered and dated, and a log is maintained. Once labeled, the bio-sealed bags are placed in cold storage area #2.

D4.2 Sanitation Protocol

- 1.** Temporary sinks are periodically checked for spillage and overflow of drainage.
- 2.** At the cessation of each day's Incident Morgue operations, the following sanitation measures are taken:
 - All human remains, whether processed or unprocessed, are returned to cold storage. These are sorted and labeled for the Station at which they were awaiting examination so they can be returned to that Station the next day.
 - All biohazard materials are collected and sealed for pickup.
 - New biohazard containers are prepared and placed in the Incident Morgue.
 - All sinks, processing surfaces, and processing areas are disinfected with bleach or other disinfectants.
 - Fluids and processing waste buckets are collected and properly disposed.
 - The buckets are then treated with bleach or other disinfectant.
 - Floor areas are cleared and mopped with disinfectant.
 - Cold storage areas are checked and locked.
 - All Incident Morgue entrances are secured.

D5 Temporary Human Remains and Personal Effects Removal Protocol

1. Use the Temporary Removal Form when [AGENCY] needs to temporarily examine human remains/personal effects.
2. [AGENCY] should be written in red marker in the comments section of the Victim Processing Record and signed by the [AGENCY].
3. Keep the form in the station until the [AGENCY] returns the human remains/personal effects and signs them back in.

TEMPORARY REMOVAL FORM

Case # _____

Date _____

Time _____

Checked out from station _____

Checked out by (AGENCY/NAME) _____

Return date _____

Return time _____

Checked in by _____

D6 Permanent Human Remains and Personal Effects Removal Protocol

1. Use the Permanent Removal Form when [AGENCY] needs to permanently take custody of human remains/personal effects for analysis.
2. Write [AGENCY] using a red marker in the Comments section of the Victim Processing Record and obtain the signature of [AGENCY'S] representative.
3. Prepare a copy of the paperwork to travel with the human remains/personal effects.

PERMANENT REMOVAL FORM

Case # _____

Date _____

Time _____

Checked out from Station _____

Checked out by (Agency and Name) _____

Incident Morgue Representative Signature _____

D7 Decontamination Protocol (When Necessary)

- 1.** All personnel must undergo a medical examination to ensure they are physically fit for duty before beginning operations.
- 2.** Medical examinations will continue throughout operations.
- 3.** Rehab is an important component for personnel.
- 4.** Personnel must be decontaminated when finished with their rotation.
- 5.** Weather must be accurately monitored throughout operation.
- 6.** Communications must be maintained throughout operation.
- 7.** Human remains are brought from the Incident Site to the Dismount Area adjoining the Red Zone/Hot Zone.
- 8.** A case number is attached to the human remains for tracking.
- 9.** All clothing and personal effects are removed.
- 10.** Photos are taken of remains and personal effects.
- 11.** Scribes document all issues. (All information will be documented by scribes throughout the process and information will be transported with remains to the morgue.)
- 12.** Remains are sent to gross decontamination (Yellow Zone/Warm Zone).
- 13.** Remains undergo a full body exam.
- 14.** Gross decontamination takes place by fully scrubbing remains with appropriate cleaner.
- 15.** During the decontamination process, body fluids and other human tissue must be treated as bio-hazardous waste.
- 16.** Scribes document height, weight, wounds, scars, hairstyle, etc.
- 17.** Photos are taken of remains, and personal effects are photographed again.
- 18.** Remains are passed to Chemical Agent Monitor (C.A.M.) or detection technicians in the Detection Station (part of Yellow Zone/Warm Zone and the Green Zone/Cold Zone).
- 19.** Detection technicians use C.A.M to detect chemical agent, radiation, or biological agent, if any.
- 20.** Forensic specialists are available, if needed.
- 21.** If there is any amount of detectable agent on the remains, the remains are sent back to the gross decontamination station.
- 22.** If there is no presence of contamination, the remains will be placed into a body bag, a case number will be affixed, and the remains passed to the disposition technicians in the disposition area (Green Zone/Cold Zone).

- 23.** After remains are declared “clean” and placed in a body bag, disposition technicians will place remains in the proper receptacle (e.g., morgue, refrigerated trailer).
- 24.** All forms, images, and documentation are turned over to an administrative technician for all data to be entered into the designated database, which is forwarded to the Incident Morgue, Sheriff-Coroner, law enforcement and/or other required agency.

D8 Photography Station Protocol (Human Remains and Personal Effects)

- 1.** Receive human remains/personal effects and placed them on white background (photo copy stand).
- 2.** Place right-angle metric rule next to the remains/personal effects. Add extension ruler, if required.
- 3.** Place case number tag (from folder) with case number next to the remains/personal effects.
- 4.** Take photograph.
- 5.** Record in Photo Document Log:
 - Date
 - CD/DVD name or number
 - Photo/digital image number
 - Case number. Add a letter suffix for subsequent photos of the same remains/personal effects, e.g., 32, 32A, 32B.
 - Camera settings
 - Make notations, as needed
 - Dental
 - Perforations in tissue
 - Correlation of case numbers
 - “PE” if personal effects are in the photo
- 6.** Sign and date the Victim Processing Record and label as follows:
 - CD/DVD with the case number and the mass fatality incident name
 - Exterior of CD/DVD case with case number
 - Ziploc baggie with mass fatality incident name and photo number
- 7.** Place Photo Document Log in baggie and seal.
- 8.** Document photo numbers and human remains/personal effects shots in the Photo Document Log.

9. If the remains/personal effects come back to be re-photographed, look up the case number in the Photo Document Log to determine the last number/suffix used so that the new photograph can receive the correct sequential number. For example, if the remains/personal effects labeled 32 had three photographs taken when it originally came through, those photos are numbered 32, 32A, and 32B. If #32 comes back for more photos, it should be labeled 32C, 32D, etc.
 - Photography Station should make a copy of the original Photo Document Log.
 - Designated law enforcement officer will take possession of digital images and the original Photo Document Log.
 - Designated law enforcement officer will hand-deliver this directly to [AGENCY].
 - Designated law enforcement officers will keep a copy of the Photo Document Log for themselves.
 - Place one set of photographs in the original postmortem files.
 - Place a second set in the postmortem file copies maintained by DMORT.
 - [AGENCY] maintains all original digital data/images.

D9 Radiology Station Protocol

1. Turn on processor at beginning of the day by pressing the run button. Processor will be ready in approximately 15 minutes. Ready light will come on when processor is ready.
2. Wear gloves at all times.
3. Place cassette inside plastic cover. Place human remains on cassette. Depending on the size of the cassette, several items may be radiographed on the same digital image/film.
4. Label the remains with the corresponding case number with the lead numbers provided. Lead numbers should be placed as close to the remains as possible. Do not place multiple remains together if the case numbers run from 0 to 1 (example, 60 with 61).
5. Attempt to place the remains in anatomical position when possible. The Forensic Anthropology or Autopsy – Pathology team will assist as needed.
6. Return the digital images/film to the imaging area. It is useful to have one team member outside the Incident Morgue to transport and process the film from the Incident Morgue door. This eliminates signing in and out, and having to put on and take off personal protective equipment.
7. Review the film for adequate resolution and proper labeling.
8. Make sure the film has the proper case number label along with mass fatality incident name on the film.

8. If remains need to be repositioned to reflect anatomical position of the body part, take an additional radiograph.
9. Notify [AGENCY] of any unusual findings (e.g., non-incident related fatality).
10. Assign the scribe to do the following:
 - Complete the Radiology Form
 - Initial logbook
 - Place films in corresponding x-ray folder. If multiple remains are included on one film, note on outside of x-ray folder.
 - Sign the Victim Processing Record on the front of the folder
 - If remains are not received in numerical order, note missing remains for future reference. If remains are not received by the end of the day, contact the Incident Morgue Manager
11. Complete the following end-of-day cleanup procedures:
 - Use disinfectant spray or wipes on all equipment, cassettes, and table.
 - Turn off x-ray equipment and processor. Lift the lid of the processor for ventilation.
12. When a radiograph is requested for review by another station, that station's representative will sign out the radiograph with the date and time and sign back.

D10 Dental – Odontology Identification Station (Postmortem – Morgue Operations)

1. Receive dental remains from previous station.
2. Clean remains.
3. Examine and chart remains according to CalDIT Manual, page 7).
4. X-ray dental remains (conventional/digital)
5. Take digital photo of remains (if authorized by DMORT Commander; see CalDIT Manual, page 7).
6. Complete and copy all postmortem records.
7. Deliver and log postmortem record to dental comparison Station (see CalDIT Manual, page 10)

D10.1 Dental/Odontology Identification (Antemortem – Family Assistance Center)

1. Obtain list of possible victims
2. Contact last known treating dentist
3. Record antemortem dental records (see CalDIT Manual, page 8)

4. Deliver information to antemortem file (see CalDIT Manual, page 9)

D11 Autopsy/Pathology Station Protocol

1. The pathology analysis is completed by a team consisting of a pathologist and a scribe.
2. The human remains are received and placed on the examination table. Case number is verified on file and on the remains bag.
3. The pathologist:
 - Assesses appropriate dimensions and features of each of the remains.
 - Notifies [AGENCY] of any unusual findings (e.g., possible wounds).
 - If remains cannot be analyzed, the forms must still be completed. A notation of “no analysis” or “no pathology” should be made.
4. The scribe:
 - Locates x-ray and places it on light box for review.
 - Transcribes information dictated by pathologist to Pathology Examination Form.
 - Completes Pathology Log for each of the remains.
5. Pathologist signs and dates Pathology Examination Form and the Victim Processing Record.

D12 Forensic Anthropology Station Protocol

1. The anthropological analysis is typically completed by a team consisting of two anthropologists and one scribe.
2. The human remains are received and placed on the examination table.
3. The case number associated with human remains is verified on the file and on the human remains bag.
4. The anthropologist:
 - Assesses biological parameters.
 - Reviews Autopsy – Pathology and Dental – Odontology forms for consistency (e.g., bone, side, biological parameters) with anthropology assessment. If there is a discrepancy, the team will consult with the other team(s) and reach a consensus on the assessment.
5. The scribe:
 - Locates the x-ray and places it on light box for review
 - Transcribes information dictated by anthropologists to Anthropology Examination Form
 - Completes Forensic Anthropology Log for each of the remains

6. Anthropologist signs and dates Anthropology Examination Form and the Victim Process Record.

D12.1 Forensic Anthropology Cleaning Protocol

During the processing of remains by anthropology, it may be necessary to remove the tissue from bone features used for analysis of age, sex, or pathology in order to observe subtle features. All attempts are made to remove the adherent tissue using scalpels, scissors and/or periosteal elevators. If additional tissue removal is necessary, the following procedures are observed:

1. Runner takes remains to DNA for immediate sectioning. If DNA requires a section of the bone, indicate which part is still needed for anthropological analysis and return this portion to anthropology after sectioning.
2. Process bone as needed:
 - Place the bone in microwave-safe container and fill with water so bone is barely submerged. Microwave for 5 minute intervals and continue to clean the bone manually (up to 30 minutes total).
 - If tissue is still present after heating and cleaning, soak in bleach solution (50% bleach, 50% water) for 1 hour. Increase bleach concentration for second soaking if necessary.
 - Indicate cleaning procedures used (microwave, bleach, etc.) in comments of Anthropology Examination Form.

D13 DNA Station Protocol

1. Set up computer from the Armed Forces DNA Identification Laboratory (AFDIL) with AFDIL incident number and initials of AFDIL personnel present.
2. Set up the station for DNA recovery.
 - Scalpels
 - Stryker saws
 - Diluted (10%) bleach solution
 - Disposable covers (12 × 12 Bench Kote)
 - 4 × 4s to wipe instruments
 - Collection tubes
 - Evidence bags
3. Human remains should come to DNA Station last. If the Victim Identification Form indicates that a Station has been skipped, a runner should be directed to return the remains and file to that Station. Exceptions can be made for special treatment of the remains by request from the [AGENCY].

4. The DNA recovery team examines the remains to determine whether a sample will be taken, as per AFDIL guidelines:
 - 5–10 grams of deep skeletal muscle (avoid tissues that may have been crushed by incident impact or blast forces)
 - 1–2 cm x 4–6 cm x 0.5–1 cm of cortical bone (avoid anthropological landmarks and articular margins, as well as fresh-broken margins, when possible; cut windows in long bones and crania)
 - Upper or lower canine or other intact tooth without restorations
 - Other portion of soft or hard tissue that fits into a 50-mL conical tube
5. The case number of the remains is noted on the DNA Log, along with a YES or NO indication for sampling. Start log with date, page number, and mass fatality incident name.
6. If a sample is taken, the remains are placed into a specimen tube that has been pre-labeled, by hand, with the AFDIL number AND the case number. The numbers should appear on the tube itself AND on the lid.
7. The specimen tube is given to the computer operator. The computer operator:
 - Enters the case number of the remains, the type of material, and the exact nature of the remains.
 - Generates two labels
 - The first label is placed on the tube on the opposite side of the hand-written numbers, as close to the lid as possible.
 - The second label is placed on the plastic evidence bag.
 - Inserts the labeled tube into the labeled bag
 - The bag is heat-sealed and placed into a cooler or a –20° freezer until it is released to AFDIL. Once the remains are frozen, they should remain frozen.
 - The remains should be kept cold while awaiting sampling. If there is an extended break, or if the sampling takes longer than usual, the remains should be returned to refrigeration temporarily.
 - Completed samples are released to AFDIL by the Sheriff-Coroner.
 - The Victim Processing Record is initialed, and a YES or NO is written to indicate sampling.

D14 Runner Protocol

D14.1 General

1. Help locate files and human remains as needed
2. Help keep remains moving from one Station to the next

3. Make sure that files and/or remains removed from any Station are logged out and back in appropriately
4. Human remains of interest to the [AGENCY] are given priority

D14.2 Photography Runner

1. Pick up files and human remains
2. Verify that remains and file numbers match
3. Verify that Photography has signed off on the Victim Processing Record
4. Deliver to next appropriate Station. Check the Victim Processing Record to determine Station. This is usually Pathology but may be Dental - Odontology, Fingerprinting or Footprinting, or Forensic Anthropology

D14.3 Autopsy/Pathology Runner

1. Keep human remains in order, labeled "AUTOPSY - PATHOLOGY – TO BE DONE."
2. Keep files that correspond to the remains in numerical order.
3. Once analysis is completed, deliver the remains and file to next station.

D14.4 Forensic/Anthropology Runner

1. Keep human remains in order, labeled "FORENSIC ANTHROPOLOGY – TO BE DONE."
2. Set out several remains (as space permits) in sequence with their associated X-rays and files.
3. Keep files that correspond to the remains in numerical order.
4. When analysis is completed:
 - Return x-ray to x-ray file.
 - Deliver remains and corresponding file to next station.

D14.5 DNA Runner

1. Place human remains in container labeled "DNA – TO BE DONE."
2. Verify that remains have been examined by all Stations before bringing to DNA for review.

D15 Evidence Walk-Through Protocol

1. [AGENCY] determines when human remains/personal effects become evidence. Whenever a Station processing remains/personal effects feels there is significant

evidence that has been found, [AGENCY] is notified immediately to make the final determination.

2. Once [AGENCY] advises DMORT that particular remains/personal effects are to be treated as evidence, a Runner is assigned to walk the remains/personal effects through any remaining stations.
3. The Runner observes the following procedures:
 - Stays within view of the remains/personal effects while they are processed or transfers temporary custody of them if required to leave the remains/personal effects for any reason.
 - Ensures that the [AGENCY] and appropriate DMORT staff signs the Human Remains/Personal Effects Removal Form AFTER all Stations have completed their analysis.
 - Copies the remains file, including the Human Remains/Personal Effects Removal Form, for DMORT records.
 - Hand-delivers the copied file to the Administration Supervisor for data input and permanent filing.

D16 Library Protocol

D16.1 General

1. All antemortem data, except dental, are entered at the Family Assistance Center (FAC). Information being generated at the FAC will be merged into the computer at the Information Resource Center (IRC).
2. All postmortem folders are data entered and filed at the IRC. All charts must be signed in and out.
3. All antemortem records (other than dental and medical) are to be filed at the IRC and must be signed in and out.

D16.2 Antemortem Records – Dental and Medical

1. Faxed records are received by [AGENCY] and recorded as received by the IRC. The records are held at the IRC until retrieved by the Antemortem Station Leader.
2. Antemortem dental records are entered in on the Antemortem Log and placed in the Unprocessed File Folder in the Antemortem Records File.
3. Antemortem dental records are charted according to the established Dental Protocol. Completion of charting is entered on the Antemortem Log. The records are then placed in the box labeled “To Be Entered in WinID.”
4. After data entry, the records are filed numerically in the Antemortem File.
5. Completion of the data entry is entered on the Antemortem Log.

D16.3 Postmortem Records – Dental

1. All postmortem records are hand-carried from the Dental Station to the Dental ID office where they are entered onto the Postmortem Log and placed in the box labeled “To Be Entered in WinID.”
2. After data entry, the records are filed numerically in the Postmortem File. Completion of the data entry is entered on the Postmortem Log.
3. All records must be signed in and out of central filing.

D16.4 File QA/QC Protocol

1. Unnecessary and/or blank forms are removed from the files.
2. Cross-check that human remains sampled for DNA analysis as indicated on the Victim Processing Record are listed on the master list compiled by the DNA Station
3. The files are reviewed to ensure that there are no discrepancies, inconsistencies, or omissions. If a problem is found, the following procedures are observed:
 - If a station has not signed the Victim Processing Record, the file is sent to the appropriate Station for signature.
 - If a station has not processed the human remains/personal effects, a blue sheet for the appropriate Station is labeled with a case number. The file with the blue sheet and the remains/personal effects are sent to the appropriate Station(s) for analysis.
 - If discrepancies are found between the Station analyses, a blue sheet is filled out indicating the nature of the discrepancies. The file is routed to the appropriate Station(s) for reanalysis and problem resolution.
 - If an inconsistency is noted between the scientific stations (i.e., Autopsy/ Pathology, Forensic Anthropology) and Radiology on the identification of the remains/personal effects, the Radiology Form is annotated with the identification provided by the Scientific Stations. This annotation is initialed and dated by the File QA team in the Administrations Station.
 - If an inconsistency is noted within a Station Report, a blue sheet is filled out noting the inconsistency and the file and/or remains/personal effects are routed to the appropriate Station for resolution.
4. If the remains/personal effects have already been positively identified before the QA assessment and not all stations have completed their analyses, the remains/personal effects are considered fully processed. The remains/personal effects are not re-routed for further analysis. The remaining stations are crossed off of the Victim Processing Record and initialed by the QA team.
5. A list is maintained of all files that are re-routed. As the files are returned to the QA team, they are crossed off the list if they pass the remaining QA standards.

6. Once files have been assessed for all QA standards and have passed all quality checks, a blue “Q” is written on the lower-right corner of the Victim Processing Record and marked off a master list indicating that the file has passed QA standards. The files are then sent to the Information Resource Center for copies to be made.
7. Once copies of the files have been made, any additions or changes must be made on orange (not blue) paper. The orange sheets are copied and filed in each copy of the files.

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County Mass Fatality Management Forms

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County Coroner Initial Start Up Form

County of Monterey Coroner Mass Fatality Initial Start Up

Step 1

Obtain the following information from person reporting the incident to you.

1 Date	2 Time	3 Reporting party name	4 Agency
5 Address of incident		6 Place of incident (school, business, field, airport, etc.)	7 Cross streets/map pages
8 Command post established		9 Where should the Coroner respond at the scene	10 Incident Commander
11 Fatality Estimate		12 Fatality Potential (explain what you know about injuries/fatalities. Example: 250 Injured transferred to hospitals, 500 potentially trapped in collapsed building)	
13 Is an immediate response to the scene being requested?		14 How many deputies are being requested?	15 Is the OA EOC being activated?

16 Type of incident

- | | |
|--|---|
| <input type="checkbox"/> Plane | <input type="checkbox"/> Marine vessel |
| <input type="checkbox"/> Train | <input type="checkbox"/> Fire |
| <input type="checkbox"/> Building collapse | <input type="checkbox"/> Flood |
| <input type="checkbox"/> High rise fire | <input type="checkbox"/> Civil unrest |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Nuclear |
| <input type="checkbox"/> Explosion | <input type="checkbox"/> Biological/chemical weapon |
| <input type="checkbox"/> Mass shooting | <input type="checkbox"/> Other |

Summarize other points you believe are important.

Step 2.

Start the Notification. Document all employee contacts and phone calls made or received related to incident.

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DNA Family Reference Collection Form

County of Monterey DNA Sample Family Reference Collection Form

Donor information

Last name First name Middle name

Social security number (if applicable) Home telephone number

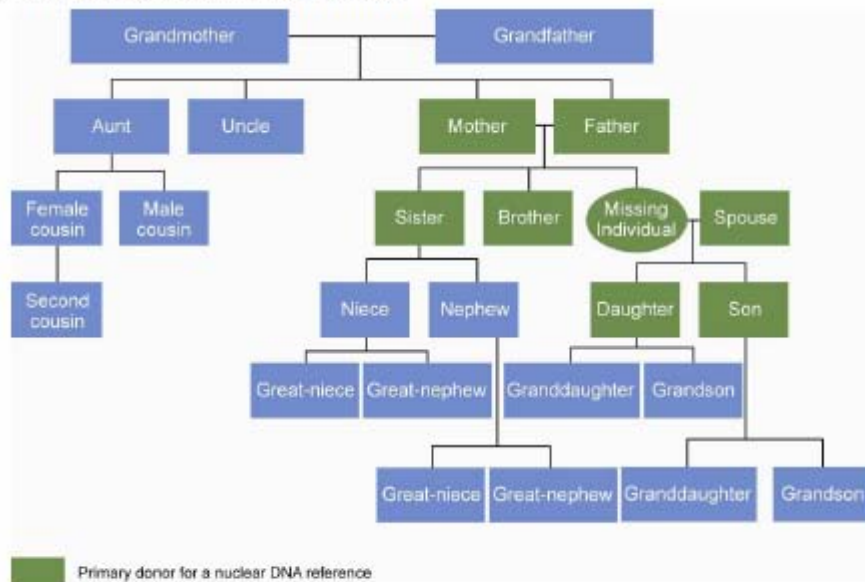
Home street address _____

City State Zip Country

Date of birth (month/day/year) _____

Family relationship

Please circle your kinship to the missing individual



Missing Individual information

Last name First name Middle name

Date of birth (month/day/year) Social security number (if applicable)

*Primary donor for a nuclear DNA reference (see list of primary donors on p. 64).

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Potential Living Biological Donors Form for Nuclear DNA Analysis

County of Monterey Potential Living Biological Donors Form for Nuclear DNA Analysis

Mother/Father of Missing Individual

Name	Age	Address	Phone

Brothers/Sisters of Missing Individual

Name	Age	Address	Phone

Spouse of Missing Individual

Name	Age	Address	Phone

Children of Missing Individual

Name	Age	Address	Phone

Primary Donor for Nuclear DNA Analysis

An appropriate family member for nuclear DNA analysis is someone who is biologically related to and only one generation removed from the deceased. The following are the family members who are appropriate donors to provide reference specimens, in the order of preference:

1. Natural (biological) mother *and* father, *or*
2. Spouse *and* Natural (biological) children, *or*
3. Natural (biological) mother *or* father *and* victim's biological children, *or*
4. Multiple full siblings of the victim (i.e., children from the same mother and father).

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Remains Release Authorization Form

County of Monterey Remains Release Authorization Form

Release Authorization

Name of deceased: _____

Please be advised that identified human tissue will be buried in an appropriate manner.

In the event any additional tissue(s) are recovered in the future and are identified as belonging to the above named deceased, I/WE request the following (please check ONE of the boxes below):

I/WE do not wish to be notified. I/WE are authorizing the appropriate administrator(s) to dispose of said tissue(s) by methods deemed appropriate by said administrators(s).

I/WE wish to be notified and will make a decision regarding disposition at that time.

I/WE the undersigned hereby authorize _____
(Name of Coroner)

to release the remains of _____ to the designated Disaster
(Name of deceased)

Mortuary Operational Monterey _____ County Coroner's Division or
(Name of county)

Response Team (DMORT).

I/WE further authorize the designated same DMORT to embalm, perform postmortem reconstructive surgery techniques, and otherwise prepare the remains as they deem necessary, and on completion to release the remains to:

(Name, address, and phone number of funeral home/agent).

I/WE certify that I/WE have read and understand this RELEASE AUTHORIZATION. I/WE further state I/WE are all of the next of kin or represent all of the next of kin and am/are legally authorized and/or charged with the responsibility of burial and /or final disposition of above said deceased.

Signed _____ Relationship to deceased _____

Print name _____ Date signed _____ Time _____

Complete address _____

Telephone number _____

Signed _____ Relationship to deceased _____

Print name _____ Date signed _____ Time _____

Complete address _____

Telephone number _____

Witness _____

Print/witness name _____

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City Procedures to be Followed Prior to Coroner Arrival

County of Monterey

City Procedures to be Followed Prior to Coroner Arrival¹

Overview: The Coroner's Division is responsible for the collection, identification, and disposition of decedents during conditions of disaster or extreme peril. Responsibilities include the following:

- 1) Identify human remains
- 2) Provide adequate and decent storage
- 3) Determine the cause and manner of death
- 4) Inventory and protect personal effects found on the decedent
- 5) Locate and notify the next-of-kin
- 6) Release remains.
- 7) Secure any evidence pertaining to the death.

Catastrophic Incident Assumptions: The Coroner's Division may not be able to provide assistance for 72 hours or longer. Communications and transportation may be disrupted. Therefore, a city-level organization must take action to ensure the safe handling and storage of decedents until the Coroner's Division or Coroner-designated personnel can respond.

Recommendation:

Cities should designate and train an 8 -10 person City Mass Fatality Response team, including 2 primary points of contact, in the handling decedents during a catastrophic mass fatality incident. Select an area as a fatality collection point for decedents. Depending on the size of the city's facility and the ease of access to certain areas, cities may want to identify multiple sites, or outline the requirements for such a site (e.g., secured, sheltered, easily accessible by land vehicle and by helicopter, running water, electricity, refrigeration, ability to support large vehicles)

The City Mass Fatality Response team lead should:

- Notify the Coroner's Division as soon as possible
- Listen to the local Emergency Alert System and follow the instructions, if unable to make contact
- Contact the Coroner's Division through local law enforcement
- Make every effort to contact the Coroner's Division to determine the estimated time of arrival, receive special instructions and receive Coroner's Division permission to move the human remains and personal effects before the human remains and personal effects are moved or wrapped
- Be prepared to answer numerous questions related to the fatalities (e.g., condition, location and numbers)

¹ Source: San Bernardino Sheriff-Coroner Department, Mass Fatality Planning and Procedure Guide

City Mass Fatality Response team procedures for handling of decedents/remains

- 1) Determine if the decedents can be safely moved
 - a. Structural damage and debris may prevent the safe removal of one or more decedents. If this is the case, clearly mark the area for later removal of decedent by the Coroner's Division Coroner Unit and support personnel. Use an indelible marker or spray paint. In large writing, write "DOA" and arrow pointing to the location of the decedent
 - b. If decedent or body parts can be removed, refer to body-wrapping procedures before removing to fatalities collection point
 - c. Set aside an area that can be used as a fatality collection point for fatalities. Cement parking structures, golf courses, covered areas and nearby parks are ideal for this purpose; however, decedents should be shielded from public view including aircraft. Special care should be taken not to place bodies where body fluids can be absorbed, such as wooden floors or linoleum covered floors. Be aware of the possibility of drainage and minimizing impact on water sources.
 - d. The following supplies are recommended to be kept on hand for mass fatality response operations:
 - Body bags
 - Heavy duty gloves
 - Rubber gloves
 - Plastic aprons
 - Face masks
 - Anti-bacterial solution
 - Indelible markers
 - Chlorine bleach
 - e. Follow infection control precautions when handling decedents. Wear rubber gloves (leather gloves will absorb fluids), facemask, and protective clothing. Always wash hands with antiseptic solution after handling decedents. Soap and water is fine if you do not have an antibacterial solution. Disinfect other equipment with 10% bleach solution.
 - f. Before moving the body, write on the ankle tags, toe tags, or body identification form identifying data:
 - Name (if known)
 - Sex
 - Race
 - Apparent age

- Location found (office, apartment, car license plate, street address, etc.)
 - Other casualties (living and dead) found with
 - Number (assign each body a number)
- 2) If in a high rise, indicate floor, then number
- a. Record this same information in a Mass Fatality Incident Log.
 - b. Take an ID photo (both facial and general overview) of the decedent in its original location
 - c. If the decedent can be moved, perform the following:
 - Secure human remains in plastic or vinyl body bag.
 - If a body bag is not available, wrap and secure body with plastic sheet approximately .25mm in thickness.
 - Place body in center of sheet cut 4 ft. X 10 ft. or use two heavy-duty lawn debris trash bags.
 - Secure to ensure fluids are contained using tie wrap or 3-ply cotton rope.
 - Do not damage human remains when securing (e.g., do not secure rope around the face) as this may disfigure the body and delay identification efforts)
 - Complete Body Identification Sheet (See Attached)
 - Record identity, if known (e.g. driver's License, personal recognition, and important details on the discovery of the body such as address, location, position)
 - Leave valuables such as rings, wristwatches, necklaces, etc. on the body.
 - Place loose valuables found with the body in a small sealable plastic bag and put inside body bag or plastic sheeting.
 - Write brief inventory description on Body Identification Sheet and place with body
 - Move bagged body to fatality collection area
 - Establish security to prevent looting of bodies
 - Keep log sheet for number of bodies stored and a grid showing the location of each body
 - Do not release bodies or property to relatives

Body Identification Sheet

Name _____

Method of ID _____

Visual _____

ID found on Body _____

Jane or John DOE
(Unidentified) _____

Where (e.g., room number, floor, street, cross
street, etc.) _____

Date/Time decedent was found with no signs of
life² _____

Clothing _____

Jewelry _____

Other _____

These items have been wrapped with the body.

The decedent was declared dead by the person signing this document.

I, hereby attest to the information stated above.

Print Name

Signature of Individual completing document Date

Driver's License #

Or Social Security #

Or California ID

² No signs of life includes: obvious signs of decomposition, no movement, no heart beat, does not react to pain.

**Disaster Mortuary Operational Response
Teams (DMORT) Forms**

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Site Recovery Record Form



VIP/DMORT Program Site Recovery Record

Incident _____

PM Case # _____

To be used in the field to document original findings. Please insert into the appropriate Victim Disaster Packet

Please document all information. A proper positive identification begins NOW with YOU. NOT all fields will be appropriate for all situations. Please complete all that are appropriate AND PUT A LINE OR N/A in the ones that you have no information for:

Date of recovery _____ Time / 24hr _____
MM/DD/YYYY

Body Bag # _____ GPS Location _____ PM_Place_Body_Found _____
Found In (Grid Number)

Condition No Major Outward Damage Burning/Charring present Water/Environmental Decay
of Remains Obvious trauma Incomplete Remains

Position found in: _____

Field Comments

Do we have a presumptive identification? If so, who do you think this may be? _____
Please note in the field comments area WHY you believe this is a presumptive ID. **Last** **First** (MM/DD/YYYY)

Number of Photo's Taken in the field: _____

Recovery Team Leader and members (please list everyone on the team)

Transported to Morgue By _____

Time Received at Morgue _____ **Date** _____

Location of Remains at Morgue _____

VIP Program Provided thru the DMORT System

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Tracking Form



VIP/DMORT Program Tracking Form

Incident _____

To be attached to the front of each Disaster Victim Packet

PM Case #

Body Bag # _____

Open Field # _____

RFID # _____

Presumptive
SSN _____ DOB _____

Last Name First Name

Person performing station function must check and sign below when completed.
"No" represents that this station function could not be performed.

Processing Station:	Rep Initial	Section Rep.	Signature
Admitting	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Personal Effects	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Photography	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Body Radiography	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Fingerprints	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Anthropology	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Pathology	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Embalming	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
DNA	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Dental Examination	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Dental Photography	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Dental Radiology	<input type="radio"/> Yes <input type="radio"/> No	_____	_____
Exit Morgue	<input type="radio"/> Yes <input type="radio"/> No	_____	_____

Date of Pathology Exam

Trackers Name

After Processing Location

Identification Method

- Anthropology
- Radiographic
- Dental Records
- Fingerprints
- Pathology
- Personal Effects
- Photography
- DNA
- Field Case Notes

Comments

This bag produced bag #'s:

Photo's

Also included in this file:

_____	Number of Dental Photos	<input type="text"/>	_____
_____	Number of Personal Effects Photos	<input type="text"/>	_____
_____	Number of Specimen Photos	<input type="text"/>	_____
_____			_____
_____			_____

Created


PM Info #

VIP Program Provided thru the DMORT System

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Personal Information Form (8 pages)

VIP Personal Information Page 1 of 8												
Last Name		/ Suffix /		First		/ Initial		Sex	If Female/Maiden Name	Age		
DOB <small>MM / DD / YYYY</small>		Race	Social Security # / Other		Birth City		State/Country		Birth Hospital			
Address			Apt #	City			State	Zip				
County		Country		Inside City Limits		Religious Preference						
Education: level completed. Elem/Second (0-12): _____ College _____ Degree Earned: _____												
Alias 1				Last			First		Middle			
Alias 2				Last			First		Middle			
Phone (H)			Phone (W)			Phone (Cell)						
Marital Status <input type="radio"/> Married <input type="radio"/> Never Married <input type="radio"/> Widowed <input type="radio"/> Divorced <input type="radio"/> Separated <input type="radio"/> Unknown Wedding Date _____ <small>(MM / DD / YYYY)</small>												
Spouse						<input type="radio"/> Living <input type="radio"/> Deceased <input type="radio"/> Unknown						
Last		Suffix		Maiden/Birth name		First		Middle				
Father <input type="radio"/> Living <input type="radio"/> Deceased <input type="radio"/> Unknown												
Last		suffix		First		Middle						
Mother <input type="radio"/> Living <input type="radio"/> Deceased <input type="radio"/> Unknown												
Last		Maiden/Birth name		First		Middle						
Legal Next of Kin _____ Home _____ <small>Last First Middle</small>												
Address _____						Work _____						
City _____			State _____		Zip _____		On Site/Cell Phone _____					
Relationship: <input type="radio"/> Wife <input type="radio"/> Husband <input type="radio"/> Father <input type="radio"/> Mother <input type="radio"/> Brother <input type="radio"/> Sister <input type="radio"/> Son <input type="radio"/> Daughter <input type="radio"/> Employer <input type="radio"/> Friend <input type="radio"/> Other												
Permanent Contact _____ <small>Please place name and contact info here. Please place other here.</small>												
Contact 1	Last		/ First		/ Middle		Suffix					
	Address			City			State	Zip				
	Home Phone		Work Phone		Cell Phone		email					
	Date of Initial Contact				Type of Initial Contact							
	Relationship <input type="radio"/> Wife <input type="radio"/> Husband <input type="radio"/> Father <input type="radio"/> Mother <input type="radio"/> Brother <input type="radio"/> Sister <input type="radio"/> Son <input type="radio"/> Daughter <input type="radio"/> Employer <input type="radio"/> Friend <input type="radio"/> Other											
Contact 2	Last		/ First		/ Middle		Suffix					
	Address			City			State	Zip				
	Home Phone		Work Phone		Cell Phone		email					
	Date of Initial Contact				Type of Initial Contact							
	Relationship <input type="radio"/> Wife <input type="radio"/> Husband <input type="radio"/> Father <input type="radio"/> Mother <input type="radio"/> Brother <input type="radio"/> Sister <input type="radio"/> Son <input type="radio"/> Daughter <input type="radio"/> Employer <input type="radio"/> Friend <input type="radio"/> Other											
Contact 3	Last		/ First		/ Middle		Suffix					
	Address			City			State	Zip				
	Home Phone		Work Phone		Cell Phone		email					
	Date of Initial Contact				Type of Initial Contact							
	Relationship <input type="radio"/> Wife <input type="radio"/> Husband <input type="radio"/> Father <input type="radio"/> Mother <input type="radio"/> Brother <input type="radio"/> Sister <input type="radio"/> Son <input type="radio"/> Daughter <input type="radio"/> Employer <input type="radio"/> Friend <input type="radio"/> Other											



VIP Personal Information

Page 2 of 8

Name _____ / _____ / _____ / _____ / _____
Last Suffix First Initial Age

Height: _____

Approx. Weight (Pounds): _____

Hair Color Auburn Brown Gray Salt & Pepper Other
 Blonde Black Red White Please place other here

Hair Length Bald Shaved Short < 3" Medium Male Patern Baldness: Long

Hair Accessory Extensions Hair Piece Hair Transplant Wig /

Hair Description Curly Wavy Straight N/A Other:

Facial Hair Type Clean Shaven Beard & Moustache Goatee Sideburns N/A
 Moustache Beard Stubble Lower Lip

Facial Hair Color Blonde Black Red White **Facial Hair Notes**
 Brown Gray Salt & Pepper NA

Eye Color Blue Green Gray Other **Color/Descrip:** _____
 Brown Hazel Black

Optical Lens Contacts Glasses Implants None **Desc.** _____

Eye Status Missing R Missing L Glass R Glass L Cataract N/A

Fingernail Type Natural Artificial Unknown **Length** Extremely Long Long Medium Short

Fingernail Color _____ **Description** _____

Characteristics Bitten Decorated Misshapen Yellowed/Fungus N/A

Toenail Color _____ **Toenail description** _____


Characteristics Bitten Decorated Misshapen Yellowed/Fungus N/A


Body Piercing(s)? Yes No **Photos?** Yes No **Photo Location** _____


#	Location	Side	Quantity	Description (include evidence of old piercings)	Photo
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____


Tattoo(s)? Yes No **Photos?** Yes No **Photo Location** _____

#	Location	Side	AM_Tat_Description
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____

 VIP Personal Information Page 3 of 8							
<p>Name _____ / _____ / _____ / _____ / _____ Last Suffix First Initial Age</p>							
Dental Info	<p>Dentist _____ Last First <input type="radio"/> Info Listed <input type="radio"/> Unknown <input type="radio"/> I <input type="checkbox"/> Dental Work <input type="checkbox"/> Partial</p>						
	<p>Address _____ Phone 1 _____ <input type="checkbox"/> Dentures <input type="checkbox"/> Tooth Jewelry <input type="checkbox"/> Both <input type="checkbox"/> Braces</p>						
	<p>City _____ State _____ Zip _____</p>						
	<p>Additional Dental Information/2nd Dentist: _____</p>						
Physician Info	<p>Physician _____ Last First</p>						
	<p>Address _____ Address 2 _____ City _____ State _____ Zip _____</p>						
	<p>Phone 1 _____ Phone 2 _____</p>						
	<p>Practice Name _____ Physician Type _____ Seen for _____</p>						
	<p>Records Requested <input type="radio"/> Yes <input type="radio"/> No Records Obtained <input type="radio"/> Yes <input type="radio"/> No</p>						
	<p>Email _____</p>						
<p>Medical Radiographs? Physician(s) _____ <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown Address _____</p>							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Medical Radiographs Location</th> <th style="width: 50%;">Potential Type of Radiographs - and dates taken if known</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Medical Radiographs Location	Potential Type of Radiographs - and dates taken if known	_____	_____	_____	_____
Medical Radiographs Location	Potential Type of Radiographs - and dates taken if known						
_____	_____						
_____	_____						
<p>Old Fractures: <input type="radio"/> Yes <input type="radio"/> No _____ Description: _____</p>							
<p>Objects in Body: <input type="checkbox"/> Pacemaker <input type="checkbox"/> Bullets <input type="checkbox"/> Implants <input type="checkbox"/> Needles <input type="checkbox"/> Shrapnel <input type="checkbox"/> Other _____ <small>Please place other objects here</small></p>							
<p>Surgery <input type="checkbox"/> Gall Bladder <input type="checkbox"/> Tracheotomy <input type="checkbox"/> Caesarean <input type="checkbox"/> Reconstructive <input type="checkbox"/> Other _____ <input type="checkbox"/> Appendectomy <input type="checkbox"/> Laparotomy <input type="checkbox"/> Mastectomy <input type="checkbox"/> Open heart <small>Please place other surgery here</small></p>							
<p>Diabetic? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Female / pregnancy in the past 12 months? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p>							
<p>Unique Characteristics _____ Description of: Scars, Operations, birthmarks, burns, missing organs, amputations, other special characteristics <input type="radio"/> Yes <input type="radio"/> No _____</p>							
<p>Prosthetic Location/Description</p>							
<p>Prosthetic(s) _____ <input type="radio"/> Yes <input type="radio"/> No _____</p>							
<p>Additional Information</p>							

 VIP Personal Information Page 4 of 8	
Name _____ / _____ / _____ Last Suffix First Initial Age 	
Group Status: <input type="radio"/> Alone <input type="radio"/> Group Group Type: _____ <small>Family, Church Group, Sports, Military</small>	Fam/Grp Name: _____ <small>If Family Group, list names here</small>
Last seen with _____ Last location victim was seen _____	
Military Service <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown Country _____ Approximate Service Date _____	Military DNA Taken: <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown Service #: _____ Military Branch _____
Ever Finger Printed: <input type="radio"/> Yes <input type="radio"/> No <input type="checkbox"/> Fingerprints <input type="checkbox"/> Footprints	Immigration Status _____ Ever been Arrested _____ Arrested By: _____
Resident Alien Card (Green Card) <input type="radio"/> Yes <input type="radio"/> No Print located _____	
Usual Occupation: _____ Type of Business _____ Employer _____ Phone _____ Employer Address _____ <small>Please list last employer if retired. Additional employers enter in additional data section</small>	
List memberships: Clubs, Fraternities, etc. 	
Additional Data 	

 VIP Personal Information Page 5 of 8																																																													
Name _____ / _____ / _____ / _____ <div style="display: flex; justify-content: space-between; width: 100%; font-size: small;"> Last Suffix First Initial Age </div>																																																													
WATCH:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">#</th> <th style="width: 20%;">Type/ Make</th> <th style="width: 20%;">Band Material/ Color</th> <th style="width: 35%;">Description</th> <th style="width: 20%;">Inscription Photo Available</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> </tbody> </table>	#	Type/ Make	Band Material/ Color	Description	Inscription Photo Available	1				<input type="radio"/> Yes <input type="radio"/> No	2				<input type="radio"/> Yes <input type="radio"/> No																																													
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2				<input type="radio"/> Yes <input type="radio"/> No																																																									
Gold color is denoted by yellow, silver color is denoted by white																																																													
JEWELRY:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">#</th> <th style="width: 20%;">Jewelry/ Type/style</th> <th style="width: 15%;">Material Color/ Stone Color</th> <th style="width: 15%;">Size / Where Worn/ Frequently Worn?</th> <th style="width: 30%;">Description</th> <th style="width: 15%;">Inscription Photo Available</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>6</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>7</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>8</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No</td> <td></td> <td><input type="radio"/> Yes <input type="radio"/> No</td> </tr> </tbody> </table>	#	Jewelry/ Type/style	Material Color/ Stone Color	Size / Where Worn/ Frequently Worn?	Description	Inscription Photo Available	1			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	2			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	3			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	4			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	5			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	6			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	7			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	8			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No	9			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No
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9			<input type="checkbox"/> <input type="checkbox"/> <input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> Yes <input type="radio"/> No																																																								
Other Commonly Carried Personal Effects Cell phone <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown Cell phone type: _____ Service provider: _____ Cell phone number _____ Cell phone description _____																																																													



VIP Personal Information
Page 6 of 8

Name _____ / _____ / _____ / _____ / _____
Last Suffix First Initial Age


#	Clothing Items	Color	Description	Size
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				


CLOTHING:

Wallet: Description _____
 Contents _____

Purse: Description _____
 Contents _____

Pockets: _____
 Contents Left _____
 Contents Right _____

 VIP Personal Information Page 7 of 8																									
Name _____ / _____ / _____ Last Suffix First Initial Sex																									
Potential Living Biological Donors All Biological Relatives of Missing Individual—Mother/Father/Spouse/Sister/Brother/Children/Uncle/Aunt/Cousin																									
1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Last Name</td> <td style="width: 20%;">First Name</td> <td style="width: 20%;">Middle Name</td> <td style="width: 20%;">Email</td> <td style="width: 10%;">DOB</td> <td style="width: 10%;">Sex</td> </tr> <tr> <td>Relationship</td> <td colspan="2">Address</td> <td>City</td> <td>State</td> <td>Zip</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Phone 1</td> <td>Phone 2</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Phone 3</td> </tr> </table>	Last Name	First Name	Middle Name	Email	DOB	Sex	Relationship	Address		City	State	Zip					Phone 1	Phone 2						Phone 3
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					Phone 3																				
<p>Primary donor for Nuclear DNA Analysis</p> <p>An "appropriate family member" for <u>nuclear DNA Analysis</u> is someone that is biologically related to and only one generation removed from the deceased. The following are the family members who are appropriate donors to provide reference specimens, and in the order of preference (family members highlighted in bold print are the most desirable):</p> <ol style="list-style-type: none"> 1. Natural (Biological) Mother and Father, AND 2. Spouse and Natural (Biological) Children, AND 3. A Natural (Biological) Mother or Father and victim's biological children, OR 4. Multiple Full Siblings of the Victim (i.e., children from the same Mother and Father) 																									

	VIP Personal Information Page 8 of 8
<p>Name _____ / _____ / _____ <small style="margin-left: 100px;">Last</small> <small style="margin-left: 150px;">First</small> <small style="margin-left: 150px;">Middle</small></p> <p>Interview_Location _____ Interview_Date _____ Interview_Time _____ <small style="margin-left: 350px;">(MM/DD/YYYY)</small></p> <p><u>Interviewer Info:</u></p> <p>Interviewer Name _____ <small style="margin-left: 100px;">First</small> <small style="margin-left: 150px;">Last</small></p> <p>Interviewing_Organization _____</p> <p><u>Interviewer Home Information</u></p> <p>Interviewer Address: _____ <small style="margin-left: 250px;">Street, City State, Zip</small></p> <p>Interviewer home phone: _____</p> <p>Interviewer cell phone: _____</p> <p>Interviewer work phone: _____</p> <p><u>Interviewer On-Site Information</u></p> <p>Interviewer on-site address _____ <small style="margin-left: 250px;">Street, Hotel, Room #</small></p> <p>Interviewer on-site phone: _____</p> <p>Interviewer on-site cell: _____</p>	
<p>Reviewer Info:</p> <p>Reviewer Name _____</p> <p>Reviewer Signature _____</p> <p>Reviewing agency _____</p>	

Clothing Inventory Form



VIP/DMORT Program
 Person Making Inventory _____ Clothing _____

Incident _____
 PM Case # _____
 Date of Exam _____

Body Bag # _____ Sex _____

CLOTHING INVENTORY:

A= Data not available
 B= Photo
 C= Further information available

#	Clothing Items	Color	Description	Size	
Dry Cleaning Marks Description			Laundry Marks Description		

Wallet:
 Description _____

 Contents _____

Purse:
 Description _____
 Contents _____

Currency _____

Misc Items Found _____

Other Personal Effects _____

VIP Program Provided thru the DMORT System

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Jewelry Inventory Form



VIP/DMORT Program

Person Making Inventory _____

Jewelry Inventory

Incident _____

PM Case # _____

Date of Exam _____

Body Bag # _____

WATCH	#	Type	Band Material	Description	Inscription	A= Data not available B= Photo C=Other Info
		Make	Face Color			

JEWELRY	#	Jewelry/Type	Material Color	Description	Inscription	A= Data not available B= Photo C= Other Info
		Style	Stone Color Size			

Use this Space for More Info Regarding Jewelry:

VIP Program Provided thru the DMORT System

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Fingerprints Form



Fingerprint Specialist _____

VIP/DMORT Program
Fingerprinting

Incident _____

PM Case # _____

Date of Exam _____

Body # _____

Examiner 1 _____

Examiner 2 _____

Condition of Hands _____

(Burned,
mutilated, etc)

Fingers Printed _____

(List Fingers
Printed)

If not printed
why? _____

Fingerprint
Exam Notes _____

Fingerprint available ? Footprint Location

Yes No

VIP Program Provided thru the DMORT System

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Radiology Form



Examining Radiologist _____

VIP/DMORT Program
Radiology

Incident _____

PM Case # _____

Date of Exam _____

Bag # _____

Number of Images Taken: _____

Radiology Technician: _____

Radiologist Findings: Sex Male Unknown Female possible Female Male possible Est Age _____

Fractures: Cranium R Forearm L Hand L Upper Leg
 Mandible R Hand R Upper Leg L Lower Leg
 Torso L Upper Arm R Lower Leg L Foot
 R Upper Arm L Forearm R Foot

Detailed Description of Fractures

Other Radiology Findings (Prosthesis, surgery, etc.)

Reviewed by: _____

VIP Program Provided thru the DMORT System

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Pathology Form (3 pages)



VIP/DMORT Program

Incident _____

Examining Pathologist _____

Pathology _____

PM Case # _____

Pg 1 of 3

Date of Exam _____

Bag # _____ Sex Male Female Unknown Condition of Remains _____

Est Race Caucasoid Asian Hispanic Negroid American Indian Unknown Est Race Other: _____ Import Pictures

Build Gracile Robust Intermediate Indeterminate Height cm _____ Inches _____ Weight kg _____ Pounds _____

H a i r Hair Color Auburn Black Salt & Pepper Blonde Gray White Brown Red Other Hair Length Short Long Bald Medium Shaved N/A

Hair Accessory Extension Hair Piece Wig Hair Transplant Wig Hair Description Curly Straight Other Wavy N/A

Facial Hair Beard Beard & Moustache Moustache Clean Shaven Goatee

Facial Hair Color Blonde Brown Black Gray Red Salt & Pepper White

Facial Hair Type Clean Shaven Beard & Moustache Goatee Sideburns N/A

Hair Type Moustache Beard Stubble Lower Lip

E y e Eyes Blue Green Grey Missing R Glass R Cataract Brown Hazel Blind Missing L Glass L **Optical** Glasses Contacts

N a i l s Finger Nail Type Natural Artificial Unknown Length Extra Long Long Medium Short Fingernail Color _____ Fingernails Bitten Decorated Mishapen N/A Toenail Color _____ Toenails Decorated Mishapen Yellow/Fungus N/A

List manufacturer, serial numbers, and other identifying features:

Prosthetics _____

Teeth Present? Yes No Dentures Present: Yes No

S c a r s Scars (other than surgical) Birthmarks Deformities (non peri-mortem) Cardiac
 Description _____
 Scars _____
 Birthmarks _____
 Deformities _____
 Cardiac _____

S u r g e r y Gall Bladder Laparotomy Reconstructive Appendectomy Caesarean Open Heart Tracheotomy Mastectomy Other _____
 Other Surgery _____
 Description _____



VIP/DMORT Program

Examining Pathologist _____

Pathology
Pg 2 of 3

Incident _____

Date of Exam _____

Bag # _____ Sex Male Female Unknown

Tattoo(s) Yes No Unknown Photos? Yes No

#	Location	Side	Tattoo Description

Body Piercing(s)? Yes No Unknown

#	Body Bag #	Location	Side	Quantity	Piercing Description

Objects In Body

Other Object In Body

- Pacemaker Prosthetic Devices Other
 Bullets Orthopedic devices

Wallet

Description _____

 Contents _____

Purse

Description _____
 Contents _____

Currency

Misc
Items
Found

Other
Personal
Effects



VIP/DMORT Program

Examining Pathologist _____

Pathology
Pg 3 of 3

Incident _____

Date of Exam _____

Bag # _____ Sex Male Female Unknown Specimen Wt

Dimensions

Path Narrative:

Additional head and neck exam remarks:

Torso Viscera Identifiable

Torso Remarks

External Genitalia

- Male
- Female
- Indeterminate
- Circumcised
- Uncircumcised

Internal Genitalia

- Testis Left
- Testis Right
- Uterus
- Tubes Left
- Tubes Right
- Ovaries Left
- Ovaries Right

Extremity Remarks

Expanded Condition of Remains:

- Fresh
- Burned
- Cremains
- Specific Trauma
- Submerged (Grid #)
- Decomposing
- Charred
- Distinct Marks
- Floating (GPS)
- Scavenger Activity

VIP Program Provided thru the DMORT System

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Anthropology Form (2 pages)



VIP/DMORT Program
 Examining Anthropologist **Anthropology**
 Pg 1 of 2

Incident _____

PM Case #

Date of Exam _____

Bag # _____ **Anthropology Condition of Remains:**

Anthropology estimated information in this area.

Estimate age

Age narrow lower	Age narrow upper	95% Lower limits:	95% Upper limits:	<input type="checkbox"/> Male	<input type="checkbox"/> Unknown	<input type="checkbox"/> Female possible
_____	_____	_____	_____	<input type="checkbox"/> Female	<input type="checkbox"/> Male possible	

Race / Skeletal	Skeletal Robusticity	Stature (in Cm)
<input type="radio"/> Caucasoid <input type="radio"/> Asian <input type="radio"/> Hispanic <input type="radio"/> Other <input type="radio"/> Negroid <input type="radio"/> American Indian <input type="radio"/> Unknown	<input type="radio"/> Gracile <input type="radio"/> Robust <input type="radio"/> Intermediate <input type="radio"/> Indeterminate	_____

Missing Parts	Unique Skeletal Features (Pathology, Healed Trauma, Non-metric Traits, Etc.)
<input type="checkbox"/> Intact Body <input type="checkbox"/> Partial L Forearm <input type="checkbox"/> Cranium <input type="checkbox"/> L Hand <input type="checkbox"/> Partial Cranium <input type="checkbox"/> Partial L Hand <input type="checkbox"/> Mandible <input type="checkbox"/> R Upper Leg <input type="checkbox"/> Partial Mandible <input type="checkbox"/> Partial R Upper Leg <input type="checkbox"/> Torso <input type="checkbox"/> R Lower Leg <input type="checkbox"/> Partial Torso <input type="checkbox"/> Partial R Lower Leg <input type="checkbox"/> R Upper Arm <input type="checkbox"/> R Foot <input type="checkbox"/> Partial R Upper Arm <input type="checkbox"/> Partial R Foot <input type="checkbox"/> R Forearm <input type="checkbox"/> L Upper Leg <input type="checkbox"/> Partial R Forearm <input type="checkbox"/> Partial L Upper Leg <input type="checkbox"/> R Hand <input type="checkbox"/> L Lower Leg <input type="checkbox"/> Partial R Hand <input type="checkbox"/> Partial L Lower Leg <input type="checkbox"/> L Upper Arm <input type="checkbox"/> L Foot <input type="checkbox"/> Partial L Upper Arm <input type="checkbox"/> Partial L Foot <input type="checkbox"/> L Forearm	<input type="checkbox"/> Intact Body <input type="checkbox"/> Partial L Forearm <input type="checkbox"/> Cranium <input type="checkbox"/> L Hand <input type="checkbox"/> Partial Cranium <input type="checkbox"/> Partial L Hand <input type="checkbox"/> Mandible <input type="checkbox"/> R Upper Leg <input type="checkbox"/> Partial Mandible <input type="checkbox"/> Partial R Upper Leg <input type="checkbox"/> Torso <input type="checkbox"/> R Lower Leg <input type="checkbox"/> Partial Torso <input type="checkbox"/> Partial R Lower Leg <input type="checkbox"/> R Upper Arm <input type="checkbox"/> R Foot <input type="checkbox"/> Partial R Upper Arm <input type="checkbox"/> Partial R Foot <input type="checkbox"/> R Forearm <input type="checkbox"/> L Upper Leg <input type="checkbox"/> Partial R Forearm <input type="checkbox"/> Partial L Upper Leg <input type="checkbox"/> R Hand <input type="checkbox"/> L Lower Leg <input type="checkbox"/> Partial R Hand <input type="checkbox"/> Partial L Lower Leg <input type="checkbox"/> L Upper Arm <input type="checkbox"/> L Foot <input type="checkbox"/> Partial L Upper Arm <input type="checkbox"/> Partial L Foot <input type="checkbox"/> L Forearm

Anthro Sex Based On _____

Anthro Age Based On _____

Ancestry based on _____

Stature based on _____

Unique Skeletal Features _____

DNA Specimen Form



VIP/DMORT Program AFIP/DNA Specimen

Incident _____
PM Case # _____
Date of Exam _____

Body Bag # _____ | LISA ID # _____

Examiner 1 _____

Examiner 2 _____

Not Suitable For Typing - No Specimen Taken

If not, why? _____

Entire Specimen Taken Yes No

Portion of Specimen Taken
(Include Size) _____

Description of Specimen Taken
(Include Size) _____

DNA Hold Notes _____

Additional Information _____

VIP Program Provided thru the DMORT System

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Appendix E:
Chemical, Biological, Radiological, Nuclear,
or High-Yield Explosive Incident

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Table of Contents

E1	Introduction	E-1
E2	Scope.....	E-1
	E2.1 Nature and Duration of the Incident Scenario.....	E-1
	E2.2 Geographic Scope.....	E-1
	E2.3 Time Frame	E-2
E3	Applicability.....	E-2
E4	Authorities, Regulations, Requirements	E-3
E5	Roles and Responsibilities	E-3
	E5.1 Local Law Enforcement Agencies.....	E-4
	E5.2 Fire-Suppression Agencies.....	E-4
	E5.3 Monterey County Health Department, Hazardous Materials Management Services	E-4
	E5.4 Region II Fire and Rescue Mutual Aid Coordinator.....	E-4
	E5.5 Operational Area EOC Hazardous Materials Unit Leader.....	E-4
	E5.6 FBI.....	E-5
E6	Scenario Incident	E-5
	E6.1 Scenario Incident Development Methodology	E-5
	E6.2 Scenario Incident Characteristics	E-6
	E6.3 Scenario Incident Assumptions.....	E-6
E7	Concept of Operations	E-8
	E7.1 Operational Priorities and Response Objectives.....	E-9
	E7.1.1 E to E+72 Hours	E-9
	E7.1.2 E+72 Hours to E+14 Days.....	E-10
	E7.1.3 E+14 Days to E+60 Days	E-10
	E7.2 Mass Fatality Operations	E-11
	E7.2.1 Contamination Control Zones.....	E-11
	E7.2.2 Initial Site Assessment	E-16
	E7.2.3 Recovery of Remains	E-17
	E7.2.4 Fatality Collection Point.....	E-18
	E7.2.5 Gross Decontamination of Human Remains	E-19
	E7.2.6 Transportation	E-21
	E7.2.7 Pre- and Post-Examination Storage	E-22
	E7.2.8 Morgue Operations.....	E-23
	E7.2.9 Post-Examination Processing/Final Disposition	E-25
	E7.2.10 Removal and Disposition of Hazardous Materials	E-26
	E7.2.11 Other Considerations	E-27
	E7.3 Response Timeline.....	E-28

List of Figures

Figure E-1 CBRNE incident control zone layout.....E-12

List of Tables

Table E-1 Response timeline for management of mass fatalities after a catastrophic
CBRNE incident.....E-29

Appendix E: Chemical, Biological, Radiological, Nuclear, or High-Yield Explosive Incident

E1 Introduction

A catastrophic chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incident in the Monterey County will result in mass fatalities, which would quickly overwhelm the Operational Area's resources for dealing with fatalities. A plan to manage the mass fatality component of the response to a catastrophic CBRNE incident in the Monterey Operational Area is presented in this appendix. The response plan is based on an incident scenario, which is described in **Section E6**.

The primary challenges facing the Operational Area following a catastrophic CBRNE incident will be managing the large number of fatalities, operating in a contaminated environment, identifying victims, preserving and collecting evidence, and decontaminating and releasing human remains.

This appendix provides detailed information on the key elements of mass fatality response operations in the Monterey County Operational Area after the CBRNE incident scenario and tools for the initial decision making that will be required. Because the number of fatalities may overwhelm the Operational Area's mass fatality response capabilities, a description of incident-specific procedures for requesting and integrating resources from within and outside a jurisdiction is included.

E2 Scope

The scope includes the nature and duration of the incident scenario, the geographic scope, and the time frame.

E2.1 Nature and Duration of the Incident Scenario

The scenario incident is based on a terrorist attack involving the detonation of an improvised explosive device (IED) that damages chlorine tanks at a regional water pollution control agency. The explosion releases a toxic chlorine plume into the atmosphere. The explosion and chlorine release result in mass fatalities, both immediate and those delayed which may occur weeks out from the incident. Additionally, the human remains will have varying degrees of contamination. The number of fatalities and the amount of contamination are catastrophic. Although the explosion lasts seconds, recovery can take several years. See **Section E6** for more information about the incident scenario.

E2.2 Geographic Scope

The explosion in the incident scenario creates a chlorine plume that extends 2 miles to the south east of the water treatment plant. The incident has a catastrophic impact on

the City of Marina and the Monterey Operational Area. Although most jurisdictions in the San Francisco Bay Area are not affected directly, their resources are needed to fill mutual aid requests submitted by the Monterey Operational Area Emergency Operations Center (EOC).

E2.3 Time Frame

The time frame addressed in this appendix begins with the occurrence of the CBRNE incident or event (E) and ends 60 days after the incident (E+60 days). The planning periods (phases) are given in hours or days after the incident.

This appendix does not address planning or response activities that may occur prior to the incident or the long-term activities that will occur after 60 days. However, **Section 4.4** of the Plan provides guidance for long-term mass fatality planning objectives.

E3 Applicability

The processes and procedures related to the management of mass fatalities in the response to a catastrophic CBRNE incident that are described in this appendix are applicable to jurisdictions and agencies in the Monterey Operational Area, including the County, city, town, and tribal governments; special districts; nongovernmental organizations (NGOs); and the private sector. The response timeline for support of the mass fatality response (see **Table E-1**) is designed to be applicable to any jurisdiction facing a similar incident. Roles and responsibilities of the jurisdictions and agencies are defined, but tactics are not addressed.

The response operations elements that are described in this appendix include the request and integration of State and Federal resources.

This appendix is an incident-specific appendix to the Monterey County Catastrophic Incident Mass Fatality Plan (Plan), which is an incident-specific and function-specific subsidiary plan of the Monterey Operational Area Emergency Operations Plan (EOP).

This appendix is consistent with the following:

- The Regional Catastrophic Incident Mass Fatality Plan, which is an incident-specific subsidiary plan of the 2008 Regional Emergency Coordination Plan
- California Mass Fatality Management Guide: A Supplement to the State of California Coroners' Mutual Aid Plan, prepared by the California Emergency Management Agency (Cal EMA)
- San Francisco Bay Area Catastrophic Earthquake Readiness Response, Concept of Operations Plan, prepared by the Federal Emergency Management Agency (FEMA)

E4 Authorities, Regulations, Requirements

The local, State, and Federal authorities, regulations, and requirements that apply to mass fatality operations are listed in **Section 1.7** of the main document. Any assistance that is provided by the agencies involved in response operations is governed by the authorities, regulations, and requirements listed in **Section 1.7**.

E5 Roles and Responsibilities

The roles and responsibilities of State and Federal agencies involved in responding to a CBRNE incident are described in **Section 3.1** of the main document with the exception of the Federal Bureau of Investigation (FBI), which has a role in investigating terrorist attacks that is described below. The roles and responsibilities of local agencies are also listed below. The agencies involved in responding to an earthquake have similar roles and responsibilities to those in the CBRNE incident except that there is a stronger emphasis on hazardous materials (HazMat) response capabilities in the CBRNE incident. See **Table E-1** for a detailed list of the response functions in the response to a CBRNE incident.

The Monterey County Office of the Sheriff, Coroner's Division (Coroner) is the lead authority and coordinates local, regional, State, Emergency Management Assistance Compact (EMAC), and Federal mass fatality management resource assistance, and oversees mass fatality response operations. In addition to the responsibilities of the Coroner that are listed in **Section 3.1** of the main document, the Coroner is responsible for the following:

- Providing technical support to the Incident Commander
- Providing two Coroner's Investigators trained to the HazMat First Responder Operations (FRO) level and capable of donning and doffing of appropriate levels of personal protective equipment (PPE)
- Assisting with human remains recovery and decontamination operations, if necessary
- Providing detailed decontamination of the temporary morgue, if necessary
- Assuming responsibility for the management of all fatalities that occur within the Operational Area as a result of the CBRNE incident
- Managing the search and recovery efforts of Search and Rescue (SAR) teams

Requests by the Coroner for assistance are submitted to the Operational Area Coroner Mutual Aid Coordinator at the Office of the Sheriff Department Operations Center (DOC). The current Region II Coroner/Medical Examiner Mutual Aid Coordinator is the Alameda County Office of the Sheriff, Coroner's Division.

E5.1 Local Law Enforcement Agencies

In general, the roles and responsibilities of local law enforcement agencies are to serve as Incident Commander, secure the site perimeter, initiate actions such as evacuations to protect the public, and secure evidence related to the incident.

E5.2 Fire-Suppression Agencies

Fire-suppression agencies are responsible for containment actions to prevent the spread of chlorine and for assisting with the recovery of human remains. Fire-suppression agencies with HazMat response teams provide additional services to identify unknown hazards, contain hazards with specialized equipment, and assist with the decontamination of human remains and personal effects.

E5.3 Monterey County Health Department, Hazardous Materials Management Services

The Monterey County Health Department, Hazardous Materials Management Services maintains the HazMat Incident Response Team. In general, the responsibilities of the HazMat Incident Response team are as follows:

- Providing technical support to the Incident Commander
- Using specialized equipment to mitigate the incident
- Communicating the need for activation of the Community Warning System to CCHS-HazMat DOC
- Coordinating with law enforcement; fire-suppression agencies; the Monterey County Office of the Sheriff, Coroner's Division; and the FBI regarding the management of fatalities, including recovery and decontamination
- Coordinating with the FBI regarding evidence collection procedures
- Assisting with human remains recovery and decontamination operations

E5.4 Region II Fire and Rescue Mutual Aid Coordinator

The Region II Fire and Rescue Mutual Aid Coordinator is responsible for coordinating requests for mutual aid resources in Region II and for dispatching HazMat resources within the region on major mutual aid operations.

E5.5 Operational Area EOC Hazardous Materials Unit Leader

The Operational Area EOC HazMat Unit will be established in the Operational Area EOC under the Medical and Health Branch of the Operations Section. The HazMat Unit Leader is responsible for:

- Establishing and maintaining communications with appropriate branches/units at the local EOCs and the Operational Area Fire and Rescue Mutual Aid Coordinator

- Exchanging information and coordinating with the Operational Area Fire and Rescue Mutual Aid Coordinator to ensure that all response activities are interconnected and complementary
- Serving as liaison for communicating the provision of non-fire resources to other disciplines within the Operational Area EOC
- Disseminating information on HazMat incidents to the public through the Community Warning System (CWS) and/or the Operational Area Joint Information Center (JIC)

Within the Logistics section of the Operational Area EOC, the General Services Department is responsible for:

- Procuring and operating facilities to support mass fatality response operations
- Procuring and arranging transport of human remains and personal effects
- Managing resources and commodities provided by the State and Federal governments
- Working with retailers, including supermarkets, “big box” stores, and home improvement stores, to assist with meeting the needs of mass fatality operations

E5.6 FBI

Since the CBRNE incident scenario is a terrorist attack, the attack is classified as a federal crime and the incident scene, a federal crime scene. All operations conducted at the incident scene must be coordinated with the FBI, which will seek to preserve the scene to support the investigation.

The FBI Hazardous Material Response Unit (HMRU) is responsible for the following:

- Responding to criminal acts and incidents that involve HazMat
- Providing site safety oversight for FBI personnel operating in high hazard crime scenes, including collapsed structures and confined spaces
- Providing technical and scientific response to FBI investigations involving HazMat, including CBRNE incidents

E6 Scenario Incident

This section presents the CBRNE incident scenario development methodology, the incident scenario details, projected impacts, and underlying assumptions.

E6.1 Scenario Incident Development Methodology

The scenario incident is based on a terrorist attack involving the detonation of an IED that damages chlorine tanks at a regional water pollution control agency. The CBRNE planning scenario was developed to guide the Monterey Operational Area’s response operations and coordination of resource requests and public information

dissemination in support of the local response to a catastrophic mass fatality incident due to a CBRNE incident. The scenario incident simulates an environment with a relatively high number of fatalities and the additional challenge of processing contaminated human remains.

The scenario incident was selected based on the chemical-release CBRNE planning scenarios outlined in the Bay Area Urban Area Security Initiative Program CBRNE Assessment and Strategic Plan. The scenario incident is based on the U.S. Department of Homeland Security (DHS) National Planning Scenarios; the scenario was adapted for a better fit of local planning in the Monterey Operational Area.

The scenario was prepared in accordance with the chlorine gas release scenario development methodology in the CBRNE Assessment and Strategic Plan. A fatality rate of approximately 2.5 percent of the exposed population is based on the CBRNE Assessment and Strategic Plan and is consistent with DHS National Planning Scenarios for a terrorist attack scenario involving a chlorine tank explosion.

E6.2 Scenario Incident Characteristics

The CBRNE incident scenario is a terrorist attack on a chlorine tank at a regional water pollution control agency. The attack is carried out by a group of terrorists in a car filled with 100 pounds of TNT-equivalent explosives who collide with the chlorine tank, causing liquid chlorine to spread approximately 1,500 feet from the explosion site and chlorine gas to be released into the air.

E6.3 Scenario Incident Assumptions

The assumptions are divided into incident-specific assumptions and response assumptions. The incident-specific assumptions are as follows:

1. The explosion creates a chlorine gas plume that extends 2 miles to the southeast, to the east of the Regional Treatment Plant facility.
2. Urbanization coupled with the release of a chlorine plume at peak wind speeds exposes people downwind of the explosion site.
3. Immediate fatalities occur at and near the explosion site.
4. A significant number of the delayed fatalities occur in the plume zone from injuries resulting from the inhalation of chlorine gas.
5. The rate of fatalities is 2.5 percent of the exposed population.
6. Human remains at the explosion site extending out approximately 1,500 feet have the highest levels of contamination, while the remains farther downwind have varying levels.

The response assumptions are as follows:

1. The majority of the fatalities occur in and around the City of Marina, but the incident affects all jurisdictions within the Monterey Operational Area directly or indirectly.
2. The response capabilities of the City of Marina and the Monterey Operational Area are quickly overwhelmed by the high number of immediate fatalities.
3. The recovery of human remains will begin after all life-saving operations are concluded and the plume has significantly dissipated.
4. The recovery of some human remains will be conducted in an area that is contaminated with HazMat, significantly impeding the recovery of the deceased.
5. Contaminated remains require decontamination at the Contamination Reduction Corridor prior to admission of the remains to the Incident Morgue, a process that takes approximately 1 hour per eight contaminated decedents, which significantly increases the fatality management burden.
6. Resources needed to transport the deceased are not available until exposed populations are evacuated from the hazard zone.
7. The Monterey County Office of the Sheriff, Coroner's Division (Coroner) requires mutual aid assistance beyond the local level and significant response assistance from the State and Federal governments.
8. Immediate mutual aid assistance is needed for decontamination of human remains from fire-suppression agencies, HazMat units, Disaster Mortuary Operational Response Teams (DMORTs), the military, and other non-Coroner entities.
9. Local and State officials seek a waiver of selective regulatory codes/statutes pertaining to day-to-day Coroner, hospital, and death care industry operations to allow for effective and timely mass fatality management.
10. Environmental regulations may be an issue requiring resolution by local, State, and Federal agencies.
11. The State amends/suspends Title 22 of the California Code of Regulations so that biowaste and other bodily fluids from human remains are not declared HazMat.
12. Recovery of human remains does not take place until life-saving operations are complete.
13. HazMat resources to assist with decontamination of human remains are unavailable for the first 8 hours after the incident.
14. Since the CBRNE incident is the result of a terrorist attack, the FBI will respond to the incident location and will have jurisdiction over evidence collection and the investigation, requiring the Coroner to coordinate with the FBI prior to recovering human remains and personal effects.

15. Site assessment and evidence collection at the impact site and in the plume zone are required, necessitating close coordination between the FBI and local law enforcement agencies.
16. Local, State, and Federal agencies coordinate to provide the following:
 - Trained personnel and equipment to locate, secure, recover, transport, track, and process human remains
 - Trained personnel and appropriate equipment to work in a highly contaminated environment with the primary task of recovering and decontaminating chemically-contaminated remains
17. The supply of refrigerated trucks is insufficient, making it difficult to ensure proper storage/transportation of the deceased.
18. The lack of a standardized and institutionalized credentialing system for mass fatality management response personnel is problematic.
19. The State recognizes out-of-state response personnel credentials.
20. Despite significant State and Federal assistance, mass fatality management response capabilities and resources may be insufficient for Normal Standards of Death Care.
21. Consideration of select Altered Standards of Death Care may be necessary because mass fatality management response capabilities and resources may be insufficient for Normal Standards of Death Care, despite significant mutual aid and State and Federal assistance.
22. The Governor issues, amends, or rescinds Executive Orders, proclamations, or rules to deal with the disposition of human remains.
23. The State may establish a “standard” method of final disposition by issuing an Executive Order or by other legal means.
24. Military final disposition protocols need to be considered, as appropriate.
25. Affected diverse cultural/religious community populations in the Monterey Operational Area need appropriate cultural/religious consideration.
26. The need to consider the varied cultural/religious practices may overburden the task of final disposition of human remains.
27. State and Federal Government and the private sector assist in planning, conducting, and developing special memorial services and sites.

E7 Concept of Operations

All elements of the mass fatality concept of operations for the catastrophic earthquake scenario that are presented in **Section 3** of the main document apply to the Monterey Operational Area CBRNE incident scenario mass fatality response operations. This

section highlights the concept of operations elements of the CBRNE response that are different, as follows:

- Operational priorities and response objectives
- Mass fatality operations, including recovery, decontamination, storage, transport, processing, and final disposition of a high number of contaminated human remains
- A summary of operations that will be conducted within the FBI-defined crime scene to include the recovery, decontamination, and processing of human remains and personal effects.
- Response timeline and actions, including deployment of resources, key decision points, and activations
- Guidance for transitioning into long-term mass fatality operations and considerations for operations beyond E+60 days

E7.1 Operational Priorities and Response Objectives

This section provides a description of the operational priorities and response objectives in mass fatality response operations for the three response phases.

E7.1.1 E to E+72 Hours

The operational priorities are:

- Conduct an assessment of the incident site
- Determine the number of fatalities and identify the locations of the deceased
- Initiate recovery of human remains and personal effects

The response objectives are:

- Establish an Incident Command System that will coordinate mass fatality operations and support movement of responders and resources into the area by integrating local, State, and Federal operations
- Establish interoperable emergency communications among public- and private-sector mass fatality response and death-care entities involved in mass fatality operations
- Obtain situational awareness for the incident location
- Identify mass fatality management resource requirements and capabilities
- Submit initial mass fatality management resource requests
- Coordinate and initiate dissemination of public information through the JIC
- Plan and coordinate mass fatality management operations with appropriate agencies, including the FBI, which will be tasked with collecting evidence at the impact site, considered a Federal crime scene

- Collect evidence
- Establish a system for the recovery and decontamination of human remains
- Integrate incoming resources to support mass fatality response operations to locate, recover, secure, track, decontaminate, transport, and store human remains
- Begin the recovery of human remains and personal effects
- Decontaminate the recovered human remains

E7.1.2 E+72 Hours to E+14 Days

The operational priorities are:

- Continue the recovery and decontamination of human remains
- Establish and initiate Incident Morgue operations
- Provide family assistance services

The response objectives are:

- Continue recovery of human remains
- Assess current mass fatality management capabilities and request additional resources as needed
- Conduct Incident Morgue operations
- Open and operate a Family Assistance Center (FAC)
- Continue coordination and dissemination of public information through the JIC
- Continue decontamination of human remains
- Release decontaminated human remains
- Implement stress management and crisis intervention strategies

E7.1.3 E+14 Days to E+60 Days

The operational priorities are:

- Continue recovery and decontamination of human remains
- Release and facilitate final disposition of recovered human remains
- Document mass fatality operations

The response objectives are:

- Conduct final assessment of the impact site and plume zone to ascertain whether any human remains are present
- Continue decontamination of human remains
- Continue coordination and dissemination of public information through the JIC
- Continue operation of the Incident Morgue until the majority of human remains have been processed

- Continue operation of the FAC
- Continue release of decontaminated human remains
- Continue to provide stress management and crisis intervention services to responders and friends and family of the deceased
- Plan for transition to long-term fatality management operations
- Demobilize unused resources

E7.2 Mass Fatality Operations

The key factors that differentiate mass fatality response operations in a CBRNE scenario from an earthquake scenario are as follows:

- CBRNE incidents require large-scale recovery, decontamination, storage, transport, processing, and final disposition of a high number of contaminated human remains.
- Following a CBRNE incident, the Coroner must coordinate all site assessments and recovery of human remains and personal effects operations with the FBI to ensure that appropriate measures are implemented to safeguard potential evidence.
- The CBRNE incident scene is considered a Federal crime scene, and all human remains and personal effects collected at the incident site are considered potential evidence.
- Response operations are designated by the Incident Commander in consultation with the HazMat Incident Response Team and Coroner.
- A sweep of the area is similar to that of the earthquake scenario except that human remains recovery teams may need to enter all buildings in the plume zone without signs of life and canvass open areas.
- All human remains and personal effects at the scene of a CBRNE incident are considered contaminated, requiring appropriate decontamination prior to transport to the Incident Morgue.

The unique elements of mass fatality response operations for the CBRNE incident are described in the following subsections.

E7.2.1 Contamination Control Zones

CBRNE emergency response operations include establishing three contamination control zones at the incident site, which remain until the contamination has dissipated or the contaminant has been eradicated.

The first arriving law enforcement or fire-suppression agency establishes the perimeters of the zones and controls access to the incident site (see **Figure E-1**). The three zones are:

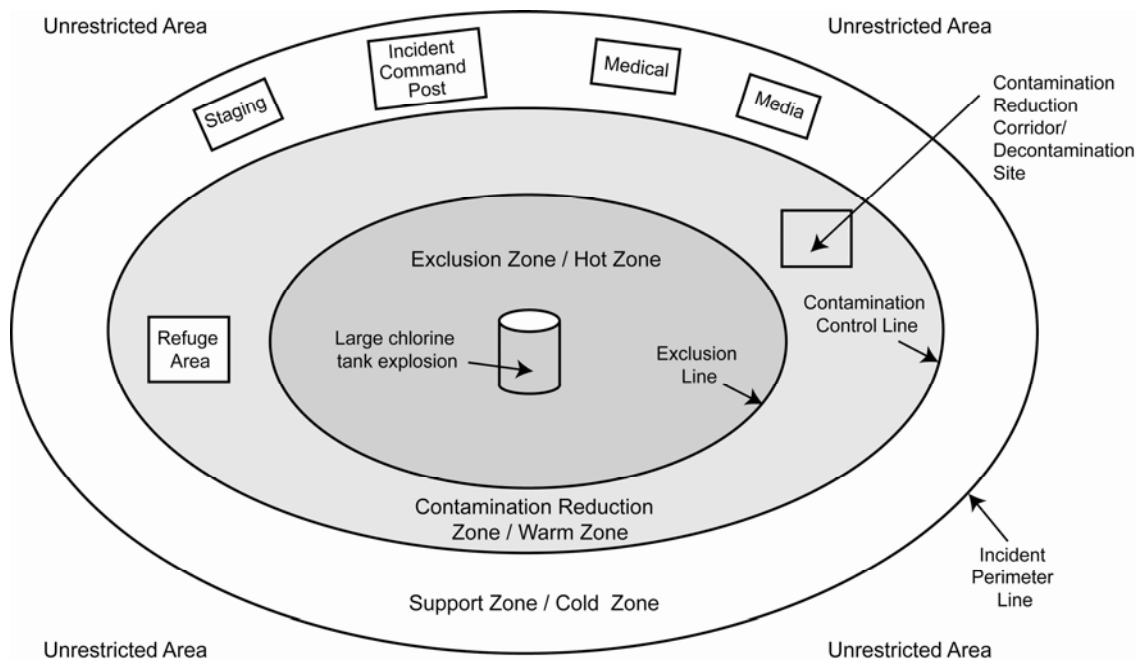


Figure E-1. CBRNE incident control zone layout.

- **Exclusion Zone/Hot Zone.** May be accessed only by designated first responders with appropriate training and PPE. The perimeter is called the Exclusion Line.
- **Contamination Reduction Zone/Warm Zone (Dismount Area).** Includes the Contamination Reduction Corridor/Decontamination Site and the Refuge Area. Responders must have appropriate PPE on to access the Contamination Reduction Zone. The perimeter is called the Contamination Control Line.
- **Support Zone/Cold Zone.** Includes staging and strategic operations (e.g., Incident Command Post, Medical and Media Areas). The perimeter is called the Incident Perimeter Line. The area outside the Support Zone is unrestricted and accessible to the public.

In coordination with the on-scene Monterey County HazMat Incident Response Team lead, the FBI, and the local law enforcement agency, the Coroner establishes the flow for the recovery, decontamination, and management of human remains and associated personal effects, which requires establishing additional contamination control zones and processing areas. The locations and distance between the zones and processing areas depend on several factors, including but not limited to the following:

- Terrain
- Available facilities, supplies, fuel, and access to power and water supplies
- Accessibility
- Wind direction (certain zones/areas should be located upwind of other areas)

The contamination control zones and processing areas are described below.

E7.2.1.1 Exclusion Zone/Hot Zone

The Exclusion Zone/Hot Zone is the most highly contaminated area and extends far enough to protect surrounding areas from adverse effects. This zone is also referred to as the Red Zone and the Restricted Zone. Access is limited and controlled. Only designated personnel with HazMat certification and appropriate PPE are allowed access. Typically, Level A or B PPE is required in the Exclusion Zone/Hot Zone.

Operations in the Exclusion Zone/Hot Zone should emphasize the use of disposable equipment and minimize the use of durable equipment. Information collection in this zone preferably is conducted without person-to-person contact or paper documents. Equipment and supplies in this zone include the following:

- Appropriate PPE donned in a clean and secure area with controlled access
- Tags for labeling bodies and containers
- Non-paper-based communications devices
- Global Positioning System (GPS) instruments for tracking the location of remains
- Digital cameras that can transmit images to a nearby operations center
- Transport vehicles, if needed, to transport bodies and workers to the edge of the Exclusion Zone/Hot Zone or beyond

E7.2.1.2 Contamination Reduction Zone/Warm Zone

The Contamination Reduction Zone/Warm Zone surrounds the Exclusion Zone/Hot Zone and is used for dismount and decontamination and to support activities in the Exclusion Zone/Hot Zone. Because the Contamination Reduction Zone/Warm Zone is considered an area with an intermediate threat of exposure, proper PPE is required, especially when contaminated remains and personal effects are handled. Access is limited and controlled. Only designated personnel with HazMat certification and appropriate PPE are allowed access. Typically, Level A or B PPE is required in this zone.

The Contamination Reduction Zone/Warm Zone includes the Safe Refuge Area/Dismount Area and the Contamination Reduction Corridor/Decontamination Site. If the Contamination Reduction Corridor/Decontamination Site is far removed from the incident location, it should also be considered a Contamination Reduction Zone/Warm Zone.

Safe Refuge/Dismount Area. The Dismount Area contains the fatality collection point for temporary holding of human remains between the Exclusion Zone/Hot Zone and the Contamination Reduction Corridor/Decontamination Site. This area may be used for removing clothing and personal items and preparing human remains for further processing and should have the necessary supplies, including body bags,

human remains pouches, sealable containers, and tags. The route between the Exclusion Zone/Hot Zone and Dismount Area should be accessible only by the workers and vehicles that support the operations in the Safe Refuge/Dismount Area directly.

The following characteristics and capabilities are preferred for the Dismount Area:

- Located upwind from the incident site and close to the decontamination area
- Hidden from view and covered with a tent-like roof
- Readily accessible by land transport vehicles
- Equipped with lifts to assist in moving human remains
- Consistently cool temperatures
- Equipped with human remains refrigeration capabilities if lengthy delays anticipated prior to decontamination

Contamination Reduction Corridor/Decontamination Site. Human remains are decontaminated in the Contamination Reduction Corridor/Decontamination Site, which is in the Contamination Reduction Zone/Warm Zone. The following characteristics are preferred for the Contamination Reduction Corridor/Decontamination Site:

- Located upwind a safe distance from the Dismount Area
- Located close enough to the Exclusion Zone/Hot Zone to avoid the need for any special considerations for transporting contaminated human remains
- Has access to fresh water or water supply vehicles
- Has reasonable access to land transport vehicles
- Has ability to accommodate large tents or tent-like roofs
- Has a sloped area for water runoff
- Has ground cover or artificial cover or turf to avoid soiling human remains and to assist with runoff control by acting as a water absorbing sump
- Allows for placement of ditches, drains, ponds, or pools to facilitate controlled management of water runoff
- Has access to electric or fuel supply, if needed

The Contamination Reduction Corridor/Decontamination Site may be divided into three zones (e.g., red, yellow, green). The red zone is where contaminated human remains are brought and photographed. Clothing is removed if necessary, and the remains are photographed again. The yellow zone is used for decontaminating human remains. The green zone is used for bagging and sealing the human remains for transport to the morgue.

The Contamination Reduction Corridor/Decontamination Site should have, at a minimum, the following equipment and supplies:

- Fresh water (water from natural sources may be used)
- Non-nylon soft sponges and brushes
- Pumps, hoses, and other devices with normal water pressure pump rates for hosing human remains, and pumps with sufficient capacities to collect runoff
- Drums to hold collected runoff in the absence of tank trucks
- Spray units
- Appropriate PPE
- Clean body bags (two for each body)
- Clean, sealable containers to hold clothing
- Tags for tracking human remains and clothing
- Decontamination showers for personnel
- Containers for discarded disposable PPE, body bags, and other items
- Chlorine detection unit to verify decontamination effectiveness
- Decontamination station for transport vehicles

Considerations should also be made for waste handling, including effluent from washing stations, and waste incineration or waste packaging for removal to offsite incineration facilities.

E7.2.1.3 Support Zone/Cold Zone

The Support Zone/Cold Zone surrounds the Contamination Reduction Zone/Warm Zone and is used for support operations. If the morgue and personal effects facilities are established at the incident site, they would be located in the Support Zone/Cold Zone. Access to the Support Zone/Cold Zone is controlled and limited to authorized personnel. Only designated personnel with HazMat certification and appropriate PPE are allowed access. Typically, a minimum of Level C PPE is required in the Support Zone/Cold Zone.

Morgue Area. One or more temporary morgues may be established on-scene in the Support Zone/Cold Zone or offsite depending on which location can support operations better. The existing offsite permanent Coroner's Division morgue can be used if adequate human remains processing capacity is available.

The following basic characteristics are preferred for a temporary morgue:

- Large, open floor space
- Electrical power, which can be supplied by generators
- Water supply
- Air conditioning/heat

- Staff support provisions such as restrooms and recovery area
- Shielding from public view

Ideally, the onsite or offsite morgue facility is sufficient for all critical functions required to process human remains—detailed decontamination, autopsy, identification, and administrative processing, which includes provision of death notifications, issuance of death certificates, and release of the deceased and associated personal effects to the next of kin for final disposition.

Co-locating the temporary morgue(s) with the Personal Effects Area and the human remains cold storage area provides a convenient and efficient system for processing fatalities. The Monterey County Office of the Sheriff, Coroner's Division (Coroner) coordinates with the Office of the Sheriff for the provision of site security at the temporary morgue(s). The County Sheriff manages deployment of law enforcement resources within their respective jurisdictions with the resources that are available when the incident occurs. Requests for additional resources are coordinated through the Operational Area Law Enforcement Mutual Aid Coordinator at the Sheriff's Office DOC. Given that in-county resources will be exhausted immediately, the Operational Area Law Enforcement Mutual Aid Coordinator will request out-of-county resources through the Region II Law Enforcement Mutual Aid Coordinator at the Alameda County Operational Area EOC.

Personal Effects Area. The Personal Effects Area is where the deceased's clothing and other personal items are taken for processing and storage after decontamination. The Personal Effects Area may be offsite or onsite temporarily in the Support Zone/ Cold Zone. It is preferred that the Personal Effects Area be co-located with the morgue at the Personal Effects Collection Point, either onsite or offsite.

E7.2.2 Initial Site Assessment

Prior to the arrival on-scene of the Coroner's team, first responder HazMat teams, including the HazMat Incident Response team, Marina Fire Department, the North County Fire Protection District, and the Salinas Fire Department will likely have identified chlorine as the hazardous agent and the appropriate level of PPE required for conducting operations in the contaminated environment (as available). Ideally, the Monterey County Coroner's Office will get this information prior to being dispatched to the scene to enable the Coroner's team to bring the appropriate resources.

The HazMat Incident Response Team conducts the initial site assessment in the Exclusion Zone/Hot Zone. Usually, Level A or B PPE is required for any operation in the Exclusion Zone/Hot Zone. The initial site assessment includes identifying the appropriate approach for investigating the scene and processing human remains.

In most cases, the HazMat teams and fire-suppression agencies conduct human remains recovery and decontamination operations prior to handing off to the

Monterey County Coroner for mass fatality processing. However, in response to a chlorine release with catastrophic impacts on the Monterey Operational Area, it is recommended that the initial site assessment teams have a minimum of four members who include the Coroner Investigator's qualified designee, an FBI HazMat technician, a law enforcement evidence collection technician, and a forensic odontologist.

Monterey Operational Area personnel will not recover human remains and personal effects until the chlorine plume has dissipated and recovery operations can be conducted in Level D PPE, a work uniform that provides minimal protection and is used for nuisance contamination only. If Coroner personnel cannot enter the Exclusion Zone/Hot Zone because of lack of HazMat certification and appropriate PPE, the site assessment team members can videotape the scene area and the Coroner's team can review the tape at another location.

The initial site assessment team's overall mission is to collect evidence, determine the cause of death, and gather appropriate information to enable formulation of an incident-specific mass fatality management plan. The initial site assessment team(s) determine:

- Total number of fatalities
- Locations of human remains
- Remains requiring a full autopsy
- Remains requiring special procedures to remove and/or process

Though it is primarily the role of the Coroner to determine the best approach for managing fatalities, input from all team members is used to evaluate the information gathered by the initial site assessment teams. This information helps the field-level incident response organization agree on an organized approach to manage the incident site and facilitate the effective management of fatalities.

E7.2.3 Recovery of Remains

The Coroner coordinates the recovery of all remains and personal effects with the FBI to ensure that appropriate measures are taken to avoid disturbing evidentiary material at the scene and to safeguard evidentiary material recovered from the scene.

It is assumed (see **Section E6.3**) that the plume dissipates prior to conducting the recovery of human remains. Therefore, all human remains recovery operations are conducted with Level D PPE in an area that was previously designated as the Exclusion Zone/Hot Zone. The Coroner should consult with the Incident Commander to determine the level of PPE that is necessary before personnel begin recovery of remains in the former Exclusion Zone/Hot Zone. Because the Coroner is unlikely to have sufficient personnel with requisite HazMat certification to recover and decontaminate all human remains at the scene, non-Coroner personnel with HazMat

certification may need to be deployed to assist with recovery and decontamination of remains.

When life-saving operations have been completed and the chlorine plume has dissipated, human remains recovery operations are performed by first responder HazMat teams, including the HazMat Incident Response team, Marina Fire Department, the North County Fire Protection District, and the Salinas Fire Department.

Out-of-area HazMat resources are estimated to be available within 6 hours of the incident; after 6 hours, resources can be redeployed to assist with fatality management of contaminated remains.

Because of to the criminal nature of the incident and the fact that human remains are considered potential evidence, the Monterey County Office of the Sheriff, Coroner's Division should not grant non-Coroner personnel unrestricted access to the human remains. All remains recovery efforts conducted by non-Coroner personnel should be closely coordinated and directed jointly by the Coroner and the FBI.

Conducting the recovery of remains in the Exclusion Zone/Hot Zone wearing Level D PPE minimizes the impact on the duration that recovery personnel can operate before needing rest breaks without the PPE and outside the Exclusion Zone/Hot Zone.

When human remains and personal effects are recovered, standard protocols for photographing, documenting, and tracking the remains should be followed. Additionally, the use of waterproof tracking tags is recommended so that subsequent decontamination procedures do not deface the tracking tag entries. Recovered remains should be identified and divided into those that require an autopsy and those that require only an external examination as they are brought to the fatality collection point. All remains should be shielded from public view whenever possible.

E7.2.4 Fatality Collection Point

Initially, recovered human remains are brought to a central location—the fatality collection point—where the remains are examined for evidence collection before they are decontaminated and evidence may be lost. This location also serves to minimize cross-contamination so that remains are safer to handle. The fatality collection point is located in the Dismount Area of the Contamination Reduction Zone/Warm Zone. Although only a minimal threat of chlorine remains, personnel in the fatality collection point should receive basic just-in-time HazMat training, wear the appropriate PPE, and follow applicable HazMat protocols.

The processing operations at the fatality collection point include the following:

- Gathering evidence from the human remains
- Removing and tagging personal effects

- Performing thorough external evaluations (e.g., collection of body-surface swab samples for chemical agents, and collection of tissue, blood, and fabric samples)
- Conducting preliminary identification

The processing operations at the fatality collection point include many tasks that the Monterey County Office of the Sheriff, Coroner's Division normally performs in the County morgue, but after a catastrophic CBRNE incident, those operations must be performed at the scene before the remains are decontaminated.

It is recommended that FBI personnel be present during personnel effects removal/recovery. The personal effects that are considered evidence are:

- Removed/recovered
- Tagged
- Placed in glass containers with protective covering (preferably)
- Handed directly to appropriate FBI personnel

Other removed personal effects should be:

- Separated into durable and non-durable items
- Put into containers and labeled
- Sent for decontamination

Jewelry and watches securely on the remains may be left in place. Non-durable items such as clothing are likely to be destroyed rather than decontaminated and returned. All contaminated clothing is treated as HazMat and disposed of appropriately. Durable items such as wallets, cell phones, and keys may incidentally be returned to the next of kin.

When the fatality collection point operations are completed, the preliminarily processed human remains are moved to the designated decontamination area for decontamination. It may be helpful to process human remains that are readily identifiable as one group and those that are not identifiable as another.

E7.2.5 Gross Decontamination of Human Remains

Human remains released from the fatality collection point are initially brought to the red zone of the decontamination site where they are photographed, their clothing removed, if still worn, and photographed again. It is advisable to assign one photographer with one camera in the red zone. The human remains are then brought to the yellow zone of the decontamination site for gross decontamination.

The HazMat Incident Response Team is responsible for decontaminating human remains following a chemical CBRNE incident. Given the catastrophic nature of the incident, it is recommended that Monterey County Office of the Sheriff, Coroner's Division personnel receive the necessary training required to actively participate in

decontamination operations of human remains, even though they normally do not decontaminate remains. Personnel conducting gross decontamination of remains and personal effects should be HazMat-certified, don the appropriate PPE, and be trained on decontamination procedures. The Coroner should confirm the requisite PPE level with the Incident Commander prior to performing gross decontamination.

Gross decontamination may be accomplished by:

- Removing clothing from human remains
- Manually washing and rinsing human remains
- Soft-spraying that minimizes spatter and aerosolization
- Using the “soak method” by submersing the human remains or items in a tank, pit, or trench

Gross decontamination should be conducted in a manner that is respectful of the deceased and that avoids public exposure of the remains.

In most cases, clothing has already been removed from the human remains as part of the fatality collection point operations and sent separately for decontamination. When the human remains are still clothed, separate decontamination of clothing and other personal items should be considered once forensic investigation requirements are fulfilled. However, following appropriate forensic analysis and documentation, if the decontamination of the clothing and personal items poses additional risks to personnel, the clothing should be sealed in containers for appropriate disposal.

Manually washing and rinsing human remains is the most effective procedure for gross decontamination. The use of additives such as soap is expected to improve results. The use of bleach is not recommended for chlorine decontamination. Typically, additives increase the level of safety for those handling contaminated human remains but can also cause tissue decay.

Decontamination effectiveness should be monitored with a chemical detector device prior to bagging the human remains. The movement of human remains through the gross decontamination procedure can be facilitated by using systems similar to those that support decontamination of non-ambulatory living victims. The gross decontamination site should be equipped with systems that can be used to lift and carry the human remains that are estimated for the scenario incident.

Any type of equipment that allows for both the movement of human remains and exposure of all body surfaces can be used. The equipment could include back boards, mesh litters, plywood on saw horses, and commercial roller systems similar to those that are used to move boxes. Moving large numbers of human remains through the gross decontamination line is physically demanding for personnel wearing PPE and can decrease the decontamination throughput efficiency. All decontamination systems

should incorporate the ability to collect and manage the contaminated water runoff for appropriate disposal as HazMat.

Following gross decontamination in the yellow zone, the human remains are brought to the green zone of the decontamination site where they are wrapped in two body bags. The zipper area of the initial body bag can be sealed by duct tape to prevent any leakage, when necessary. The outside of the initial body bag should be washed or sprayed with water before it is placed into the second body bag. Once bagged, the human remains are readied for transfer to the morgue facility via refrigerated transport. The decontaminated human remains can be temporarily stored in refrigerated trucks at the decontamination site until the morgue facility is prepared to process human remains. Refrigerating human remains can prevent or significantly slow down tissue degradation, affording additional time for time-critical human remains processing tasks.

Decontaminated personal effects are containerized and readied for transport separately to the Personal Effects Area, which may or may not be co-located with the Incident Morgue. The decontaminated personal effects could also be temporarily stored at the decontamination site until the Personal Effects Area is prepared to receive and process decontaminated personal effects.

E7.2.6 Transportation

Transporting a large number of fatalities and personal effects requires a significant fleet of appropriate transport vehicles that preferably are refrigerated. Refrigerated trucks and railroad cars are optimal for the transportation of human remains and personal effects and can dually serve as storage units if adequate refrigerated morgue space is not available.

Because of the contamination and logistical complications associated with transportation of the deceased, the number of times human remains are moved should be minimized. The use of vehicles that are used to transport food or beverages or identifiable commercial vehicles should be avoided. Typically, vehicles used for storing and/or transporting human remains cannot be used later for personal and commercial functions due to public perception.

E7.2.6.1 Transport from the Exclusion Zone/Hot Zone to the Dismount Area/ Decontamination Site

Transporting bodies and other containerized items in refrigerated land transport vehicles is preferred. Access to the route between the Exclusion Zone/Hot Zone and the Dismount Area should be restricted to those driving human remains transport vehicles and to those who supply support services to the vehicles or drivers. Transport vehicles such as open flat-bed trucks with low side and rear gate walls are preferable because they facilitate decontamination. After each delivery of contaminated human remains, the truck bed cargo area of the transport vehicles should be decontaminated

at a point between the decontamination area and the area where water runoff is collected. Drivers should wear disposable protective suits and appropriate PPE and should remain in their vehicles at all times during their work shifts.

E7.2.6.2 Transport from the Decontamination Site to the Morgue and Personal Effects Areas

Transporting human remains from the decontamination site to the morgue and Personal Effects Area in refrigerated land transport vehicles is preferred. The same procedures are used for transporting decontaminated and containerized human remains and personal effects. Decontaminated human remains and personal effects can be transported together in the same vehicle to co-located morgue and Personal Effects Areas. Parallel transport systems should be established for transporting human remains and personal effects to separately located morgue and Personal Effects Areas.

The cargo areas of vehicles returning from transporting decontaminated human remains and/or personal effects to the morgue and Personal Effects Areas should be decontaminated prior to being loaded again with decontaminated human remains and/or personal effects.

E7.2.7 Pre- and Post-Examination Storage

The fatalities and associated volume of personal effects will overwhelm existing Monterey County cold storage capacities. Monterey County has verbal agreements with mortuaries in Monterey County but no verbal or written agreements exist between the Monterey County Office of the Sheriff, Coroner's Division and the hospitals. Use of temporary refrigerated storage options such as refrigerated trucks, railroad cars, and tents will be required. Additionally, small buildings or rooms that can maintain a temperature at or below 37 degrees Fahrenheit may also be considered for cold storage. In most cases, locations used to store human remains should not be returned to their original use. Ideally, co-locating pre- and post-morgue examination, human remains cold storage, and personal effects storage areas with the morgue facilities will provide logistical conveniences and efficiencies in managing the transportation and processing of the large number of deceased and their associated personal effects.

Pre- and post-examination cold storage of human remains and personal effects should be done separately. Post-examination storage of human remains, even after embalming, may be necessary to allow for additional evidence gathering and additional autopsies, when necessary, and also when unidentifiable remains need to be stored until they can be identified. Any reuse of refrigerated storage space previously used for transporting and/or storing pre-examination human remains needs to be decontaminated prior to storing post-examination human remains. Any contaminated human remains and/or personal effects should not be stored together with decontaminated human remains and/or personal effects.

Within the storage units, shelving should be used to maximize storage for human remains, which should never be stacked on top of one another. Human remains should be stacked no higher than waist level to prevent safety hazards. The cold storage facilities should be monitored to assess the effectiveness of decontamination procedures and also to identify unsuspected contamination hazards.

E7.2.8 Morgue Operations

The expected fatalities resulting from the CBRNE scenario will overwhelm the Monterey County's fatality management response capability to process the deceased in a timely manner. The establishment of a State and federally supported Incident Morgue staffed by Disaster Mortuary Operational Response Teams (DMORTs) with Regional Logistical Response Assistance Teams (LRATs) will be required to process the large number of fatalities. The Incident Morgue operation will be coordinated with the local, regional, and State mass fatality management agencies.

Based on the availability of appropriate facilities, the Incident Morgue will likely be established offsite but preferably not far from the incident site. The Incident Morgue could potentially be supported by eight DMORTs, including the DMORT Weapons of Mass Destruction (WMD) team, by LRAT logistical support, and by two additional DMORTs in rotation to relieve initially deployed DMORTs.

The DMORT WMD team is capable of assisting with decontamination of human remains and personal effects at the decontamination site and fatality collection point. Once the DMORT WMD team decontaminates the human remains and personal effects, the team hands the decontaminated human remains and personal effects over to the DMORT operating at the Incident Morgue for post-decontamination processing. The DMORT WMD removes wastewater and does not allow it to run into the groundwater system.

Federal support for the Incident Morgue will likely include approximately 200 refrigerated trailers with a total storage capacity of 5,000 bodies and an additional number of portable, free-standing refrigerated units with a capacity of up to 500 bodies per unit.

An Incident Morgue that is staffed as described above has the potential to process approximately 144 human remains per working day if the teams work three 8-hour shifts per day, with triple-staffed digital dental units for each shift (10 dentists per shift). The maximum remains processing throughput capacities of the Incident Morgue, combined with the provision of needed cold storage capacities, could enable the processing of incident fatalities in 2 to 4 months. The availability of needed equipment, trained staff, staffing patterns, and shift durations and frequencies will dictate the Incident Morgue's overall remains processing throughput capacities.

The Monterey County Office of the Sheriff, Coroner's Division could either shift the County morgue operations to a full-surge capacity to assist with remains processing or

provide trained personnel and equipment to assist with the Incident Morgue operation. Given the limited staffing and equipment resources of the Coroner's Office and the obligations to continue managing the daily non-incident case load, the Coroner's Office may be limited in its ability to assist with remains processing operations at the Incident Morgue. However, the Coroner's Office will likely be able to assist with providing fixed or mobile cold storage facilities to store human remains and with the processes involved in facilitating the release and final disposition of human remains.

The morgue operations and functions during a CBRNE incident mass fatality response do not differ significantly from that of an earthquake incident, other than the order of operations, the need for gross and detailed decontamination of some human remains, and the implementation of added safety precautions when handling and processing contaminated remains. Incident Morgue operation details are presented in **Section 3** of the main document. The differentiating aspects of key morgue operations during a chemical agent CBRNE incident response are described below in the following subsections.

E7.2.8.1 Detailed Decontamination

All human remains should undergo detailed decontamination at the morgue. Despite the gross decontamination conducted on the human remains at the incident site, there will likely be residual contamination in the remains brought to the morgue. All such remains should be treated as contaminated remains when initially delivered to the morgue, and appropriate safety measures should be followed when handling the remains. In circumstances dealing with chlorine contamination, detailed decontamination of the human remains could be conducted with soap and water solution. Detailed decontamination should be conducted in well-ventilated areas with appropriate PPE.

E7.2.8.2 Identification

Procedures for identifying human remains should not deviate from standard protocols, despite the magnitude of the incident. The FBI fully supports allowing the needed time for the Coroner's Office to conduct requisite identification procedures to support the overall case investigation. Standard human remains identification procedures that may involve investigations via finger/footprinting, radiology, dental odontology, forensic anthropology, DNA testing, and personal effects evaluation should be conducted regardless of the time required for the procedures. Chemical agent exposure does not interfere with the standard processes used for identifying human remains.

E7.2.8.3 Autopsies

When there is a need to process a large number of fatalities, it may not be feasible to perform complete autopsies on all human remains, as will likely be the case in the

CBRNE scenario. A joint decision should be made by the Monterey County Coroner's Office, the FBI, and the U.S. Attorney to determine the criteria in selecting which human remains will require autopsies, if any. Each agency has criteria for the need to autopsy a body in support of an investigation. In circumstances requiring the processing of a large number of human remains, the Coroner's Office, the FBI, and the U.S. Attorney should consider performing autopsies on a random sample of human remains recovered from the Exclusion Zone/Hot Zone, as well as on human remains identified as atypical. Human remains not selected for autopsy should still undergo thorough external evaluations, and identification checks, and evidence collection by the Coroner's Office.

While conducting an autopsy, personnel should wear at a minimum Level C PPE to mitigate any potential risk from exposure to residual contamination on the external surfaces of human remains. Following gross and detailed decontamination on all human remains, the risk of exposure to residual contamination on the external surfaces of the human remains is likely to be low but still possible. With the exception of circumstances involving human remains with ingested cyanide pills, the likelihood of off-gas exposure risk when performing autopsies is expected to be low, as chemicals are typically metabolized, hydrolyzed, or tightly bound in body tissue. Inclusion of additional testing for chemical contaminants or residual metabolites may be necessary as an added precaution during autopsy procedures.

Despite the long duration of autopsy procedures, the exact order of the procedures should not be altered and the procedure should not be shortened. Standard protocols for collecting, packaging, and storing evidence gathered during autopsies should be followed. If the Coroner's Office does not have adequate space to appropriately store evidence collected during autopsies, the evidence should be transferred to law enforcement personnel for storage and tracking. Recovered evidence that may be contaminated should be packaged to prevent cross-contamination without affecting the evidence.

E7.2.9 Post-Examination Processing/Final Disposition

After the morgue examination has been conducted, the human remains should be double-body-bagged, sealed, and cold-stored. It may not be feasible to individually test human remains to ensure decontamination effectiveness prior to release. A more practical approach is to monitor chemical levels where the human remains are stored prior to release.

Human remains that are to be air-transported should be double-body-bagged, placed in Ziegler caskets and the lids sealed with continuous beads of silicon sealant and screws.

Once initial morgue operations are completed and the human remains are ready for release, the Coroner issues the death certificates, the next of kin/family are notified,

and arrangements are made for funeral homes to pick up the remains for final disposition. The Coroner should make all efforts to return human remains to the next of kin for final disposition.

When decontamination efforts are unsuccessful in fully eliminating contamination from human remains, the remains should be stored until an alternate method of disposition can occur. In such circumstances, following appropriate inputs from public health and safety officials, the issuance of a public health hazard declaration may require the final disposition option to include a sealed casket burial, State-sponsored mass burial, or voluntary and involuntary cremation. See **Appendix G** for additional information on Alerted Standards of Death Care.

Sealed casket burials and State-sponsored mass burials are not preferred. Sealed casket burials present some safety risks because the sealed caskets are generally not completely sealed, and local morticians are not familiar with sealed casket burial protocols. State-sponsored mass burials are considered only in extreme circumstances, including:

- When burying contaminated human remains is safer than cremating them
- When there is inadequate access to crematoriums to support individual cremation
- When it is critical to dispose the contaminated human remains in a timely manner
- When additional avoidance in handling the remains is preferred to avoid further spreading of contamination

Cremation of the contaminated human remains is the preferred final disposition option because all chemical agents are effectively mitigated at cremation temperatures above 1000 degrees Fahrenheit, and the cremation of contaminated remains is not hazardous to the environment. If cremation is required, human remains should be double-body-bagged, placed in sealed zinc coffins with surrounding wood caskets, and cremated. Cremation temperatures will effectively dispose of the contents.

E7.2.10 Removal and Disposition of Hazardous Materials

Hazardous materials waste produced through the cleaning, removal, and processing of contaminated human remains such as body bags, decontamination site runoff, used PPE, and used tools must be properly handled, stored, tracked and disposed in accordance with applicable regulations. The handling and disposal of contaminated HazMat should be coordinated with authorized and licensed hazardous waste management entities.

Body bags, used PPE, and cleaning materials may be disposed of in approved receptacles. Contaminated runoff collected from decontamination sites should be collected in drums or tanker trucks. The collected HazMat waste can then be collected,

transported, and appropriately disposed of by authorized and licensed hazardous waste management entities at approved facilities.

E7.2.11 Other Considerations

The following are options or issues that should be considered.

- **New decontamination methods.** As new and more effective methods to decontaminate human remains are discovered, they should be integrated into this plan or considered at the time of the incident.
- **Temporary interment.** When large numbers of human remains cannot be transported from the incident site in a timely manner, and there is a lack of storage site(s) and/or storage capacity, the option to temporarily inter human remains could be considered until the arrangement for requisite transportation and storage needs are made (see **Appendix G**).
- **Body bags and containment material.** Bags such as Type II and Type IIA should be used to contain hazardous substances and to prevent leakage. Containment material such as BioSeal is reportedly effective for the containment of hazardous substances, vapors, fluids, gases, and powders and may be used to enclose bodies and contaminated items such as clothing.
- **Embalming.** Embalming is not recommended when human remains contain residual hypochlorite (chlorine bleach) because of the generation of dangerous gases when the bleach mixes with embalming fluid.
- **Organ donation.** Chemical agent exposure does not necessarily preclude victim organ donation for transplantation. Chemical agents may no longer be present in human remains after certain periods of time. However, the likelihood of lengthy decontamination and human remains processing times will likely preclude organ harvesting within allowable time frames. Organ donation decisions need to be made in consultation with appropriate experts.
- **Implanted devices.** Implanted devices removed from human remains need to be decontaminated and containerized for safe return to the appropriate parties. Removed implanted devices should be forwarded to the funeral directors overseeing final disposition of the human remains so that they can be returned to the appropriate parties, such as the next of kin, the physician who implanted the device, or the device manufacturer.
- **Animal remains.** Contaminated small animal remains may be containerized in metal containers or drums. The processing and disposal of such remains needs to be coordinated with the FBI, Monterey County Health Department, Animal Services, and veterinary consultants.

E7.3 Response Timeline

Table E-1 provides a response timeline of the tasks associated with a CBRNE incident beginning with the incident until 60 days after the incident. Operational priorities are not included in the timeline.

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A1. OBJECTIVE Establish an incident command system structure that will coordinate mass fatality operations and support movement of responders and resources into the area by integrating local, State, and Federal operations	1	E to E+72h	Activate Coroner Field Response Team, Law Enforcement DOC, and Operational Area EOC	Coroner, Office of the Sheriff	Operational Area EOC	<ul style="list-style-type: none"> Local, county, special district, and State/Federal agencies respond within their respective jurisdictions, including: Establish onsite incident command Establish and maintain first responder communications Establish contact with Operational Area EOC Establish onsite incident management, planning and coordination Control site access and implement first responder screening Establish ingress/egress routes for emergency vehicles and response assets Initiate traffic control
	2	E to E+72h	Incident Observed: County HazMat IR Team deploys to incident location	HazMat DOC	Operational Area EOC	—
	3	E to E+72h	Incident Observed: Activation of other Bay Area region Operational Area EOCs, the REOC and the SOC	Operational Area EOCs, Cal EMA	Operational Areas, local jurisdictions	While the Monterey Operational Area EOC will activate, other Operational Area EOCs may activate to coordinate the deployment of mutual aid resources
	4	E to E+72h	Incident Observed: State activates Coroners Mutual Aid Special Operations Unit at the SOC and activates the Coroner Mutual Aid system.	Cal EMA SOC	Coastal REOC, Cal EMA State Coroner/Medical Examiner Mutual Aid Coordinator, Region II Coroner/Medical Examiner Mutual Aid Coordinator	Activation per SEMS and the State of California Coroners Mutual Aid Plan. Also see the RECP Law Enforcement and Coroner/Medical Examiner Subsidiary Plan
	5	E to E+72h	Mobilize Coroner mass fatality management resources	Coroner	Office of the Sheriff	Local Resources: HazMat teams, Public Health Division, local funeral directors, surrounding Coroners/Medical Examiner, local forensic labs State Resources: California Environmental Protection Agency, California National Guard, California Public Health Department
	6	E to E+72h	Event Observed: FBI response teams arrive at scene	FBI	Local Law Enforcement, Sheriff-Coroner,	—
	7	E to E+72h	Mobilize first responders with appropriate PPE and assign tasks	First responder dispatch	Operational Area EOC, City/Town EOC(s), supporting DOCs	—
	8	E to E+72h	Determine and assemble personnel who can operate in proper PPE and assist in the response effort	Coroner	Operational Area EOC, City/Town EOC(s), supporting DOCs	Assign Coroner and FBI team leaders for each team. First responders for this incident are likely to include: <ul style="list-style-type: none"> Fire HazMat FBI Local law enforcement
	9	E to E+72h	Assemble equipment	Coroner	Operational Area EOC, City/Town EOC(s), supporting DOCs	Types of equipment: <ul style="list-style-type: none"> Appropriate level of PPE for personnel Waterproof durable tracking tool Decontamination line/equipment Contaminated water runoff containers Refrigerated trucks Ventilation fans Secure storage for personal effects Embalming station to include final rinse station (based on incident specific decision) Additional human remains pouches Additional evidence collection containers
	10	E to E+72h	Activate Monterey OA All-Hazards Mass Fatality Plan	Coroner	Operational Area EOC	—

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
	11	E to E+72h	Activate full-surge capacity morgue operations at Operational Area morgue	Coroner	Law Enforcement DOC, Operational Area EOC	—
A2. OBJECTIVE Establish interoperable emergency communications among public- and private-sector mass fatality response and death care entities involved in mass fatality operations	12	E to E+72h	Test communications systems	Coroner, Law Enforcement DOC, Operational Area EOC	Communications Branch, Operational Area EOC	—
	13	E to E+72h	Implement RECP Communications Subsidiary Plan and communication elements of CONPLAN	Cal EMA	All jurisdictions	—
	14	E to E+72h	Establish communications among relevant agencies	Coroner, HazMat IR Team	Operational Area EOC Communication Branch	Coordination points for the Coroner are: <ul style="list-style-type: none"> • Law Enforcement DOC • Hospitals • Death care service providers • Other Coroners/Medical Examiners within the region • Operational Area JIC
A3. OBJECTIVE Obtain situational awareness for the incident location	15	E to E+72h	Obtain information about the incident	Coroner	Incident Commander	Information to be collected: <ul style="list-style-type: none"> • Type of incident • Possible hazards • Type of chemical agent • How the agent was disseminated • Geographical complications • Estimated number of fatalities • Location of scene and accessibility to remains • Location of Incident Command Post • Specialized search and recovery equipment • Contractors required
	16	E to E+72h	Determine the order personnel will enter scene to perform assigned tasks	Incident Commander	FBI, Coroner	Use waterproof durable tracking tags for remains and personal effects
	17	E to E+72h	Establish Site Assessment Team	Incident Commander	Coroner, HazMat IR Team, Local law enforcement agency, FBI, Local fire agency	Site assessment team will likely include: <ul style="list-style-type: none"> • Coroner • Law Enforcement • HazMat IR Team • Fire • FBI HazMat technician • Other FBI agency representatives or specialized military teams, as necessary
	18	E to E+72h	Verify required level of PPE (Level A, B, C, D)	Coroner	Incident Commander	It is recommended that the Coroner should have two 2-person groups (primary/backup) that can operate Level A PPE.
	19	E to E+72h	Conduct evaluation and identify the extent of contamination	Site Assessment Team	Fire responders	To identify the extent of contamination the Site Assessment Team should investigate the following: <ul style="list-style-type: none"> • Type of contaminant • Levels of the contaminant on surfaces and in the air • Boundary of the Exclusion Zone/Hot Zone • The potential for the Exclusion Zone/Hot Zone to expand on contact based on the potential spread of the contaminant by air or the movement of contaminated people/objects

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A3 (cont.)	20	E to E+72h	Conduct evaluation and collect pertinent data.	Site Assessment Team	—	Due to contamination concerns, much of the initial Coroner's investigation will be performed at the incident scene. During evaluation: <ul style="list-style-type: none"> • Determine issues (e.g., difficult extraction) • Take initial pictures of site • Determine total number of remains and their location • Determine initial number of cases for autopsy, based on local capabilities and FBI's need to gather evidence and the U.S. Attorney's need to prosecute the case
	21	E to E+72h	Estimate the potential number of deceased	Coroner	Fire and rescue responders	—
A4. OBJECTIVE Identify mass fatality management resource requirements and capabilities	22	E to E+72h	Analyze current capabilities	Coroner, HazMat IR Team, Incident Commander	Law Enforcement DOC	<ul style="list-style-type: none"> • The Law Enforcement DOC will gather information on Operational Area capabilities to support field response to the incident. • The Incident Commander will assess all non-Coroner/HazMat capabilities, needs and requirements such as: firefighting, rescue, and perimeter control
	23	E to E+72h	Determine resource needs and requirements	Coroner	HazMat IR Team	—
	24	E to E+72h	Submit resource requests to appropriate agency DOC	Coroner, HazMat IR Team	Law Enforcement DOC	Coroner requests mutual aid from Region II Coroner Mutual Aid Coordinator; Hazmat requests will go to the Operational Area Fire and Rescue Mutual Aid Coordinator
	25	E to E+72h	Request initial mass fatality management resource assistance from Region II Coroner/Medical Examiner Mutual Aid Coordinator	Operational Area Coroner/Medical Examiner Mutual Aid Coordinator, Operational Area EOC Logistics Section	Cal EMA REOC, Cal EMA SOC	<ul style="list-style-type: none"> • The Region II Coroner/Medical Examiner Mutual Aid Coordinator is the Alameda County Coroner • HazMat resources are requested through the Region II Fire and Rescue Mutual Aid Coordinator
A5. OBJECTIVE Submit initial mass fatality management resource requests	26	E to E+72h	Participate in conference call(s) with Cal EMA SOC and Region II Coroner/Medical Examiner Mutual Aid Coordinator to discuss the need for State and Federal resources, including DMORTs	Coroner	—	—
	27	E to E+72h	Incident Observed Arrival of requested Operational Area, regional, State, EMAC, and Federal assets	Law Enforcement DOC	Operational Area EOC, City/Town EOC(s)	In State resources will arrive within the first 24 hours while Federal resources may take up to 48 hours to arrive
	28	E to E+72h	Coordinate and disseminate public information through the Operational Area JIC	Operational Area JIC	Local governments, State and Federal agencies, NGOs, CBOs, Coroner	Examples of dissemination methods: <ul style="list-style-type: none"> • Telephone Emergency Notification System • United Way 211 • KTOM, 92.7 MHz FM radio
A6. OBJECTIVE Coordinate and initiate dissemination of public information through the JIC	29	E to E+72h	Incident observed: Cal EMA establishes an 1-800 number to provide information about fatalities until FAC(s) can be established	Cal EMA, FEMA JFO	Operational Area JIC	—
	30	E to E+72h	Initiate communication and coordination with hospitals to determine reporting requirements on the total number of incident-related fatalities	Operational Area EOC	Coroner	—
	31	E to E+72h	Conduct initial meeting to determine planning strategy and meeting times	Planning Section Chief for field ICS	Coroner	Include Incident Commander, FBI, DMORT Regional Administrator, DMORT WMD in planning process, when possible
A7. OBJECTIVE Plan and coordinate mass fatality management operations with appropriate agencies, including the FBI, which will be tasked with collecting evidence at the impact site (considered a Federal crime scene)	32	E to E+72h	Develop IAP for first operational period	Planning Section for field ICS	Coroner	Coroner will provide status updates and objectives for each operational period
	33	E to E+72h	Develop staffing shifts and resource staging plans to maximize the use of limited resources	Logistics Section for field ICS	Coroner, HazMat IR Team	Keep PPE limitations in mind. Self-contained breathing apparatus (SCBA) typically has a 30 minute air supply. Coordinate water hydration stations.
	34	E to E+72h	Establish criteria for autopsy based on Coroner/capability and law enforcement evidence requirements	Incident Commander, FBI	Coroner	—

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A7 (cont.)	35	E to E+72h	Coordinate security requirements for remains processing	Coroner	Incident Commander, FBI	—
	36	E to E+72h	Determine chemical monitoring method and procedures, monitoring location(s), and assign responsibility for chemical monitoring	HazMat IR Team	Coroner, PH, EH, EPA	To obtain an accurate chemical vapor concentration reading, monitor bodies at the same temperature that they will be processed
	37	E to E+72h	Determine decontamination solvents and establish safe handling procedures	HazMat IR Team	Coroner, PH, EH	—
	38	E to E+72h	Establish a Family Assistance Center (FAC)	Coroner, ARC	MCDSES, NGOs	Activities include: <ul style="list-style-type: none"> • Determine role of Coroner at FAC • Assign FAC management responsibility • Set-up a local hotline/helpline for notification and identification process • Solicit religious leader support
A8. OBJECTIVE Conduct evidence collection	39	E to E+72h	Incident Observed: Establish procedures for evidence collection	FBI	Local law enforcement agencies	Incident related fatalities and personal effects are considered evidence until released by the FBI. Gather as much evidence as possible from the human remains before they undergo decontamination, which can wash away evidence
	40	E to E+72h	Initiate evidence collection and initial search for human remains	FBI, Coroner	Local law enforcement agencies	Tasks to complete prior to decontamination include: <ul style="list-style-type: none"> • Gather evidence • Remove and tag personal effects (Personal effects identified as evidence should be removed, tagged, and documented; placed in glass container and then a clean paint can; and directly handed over to the FBI) • Perform a thorough external evaluation (e.g., body surface swab samples for chemical agents, samples of tissue, blood, and fabric) • Perform preliminary identification check
	41	E to E+72h	Incident Observed: Determine the boundary to be secured for the preservation of evidence	FBI	Local law enforcement agencies	—
	42	E to E+72h	Establish contamination control zones such as the hot, warm and cold zones as part of initial life saving emergency response efforts	Coroner, FBI	HazMat IR Team, Local law enforcement, local, state, Federal, private HazMat teams	—
A9. OBJECTIVE Establish system for the recovery and decontamination of human remains	43	E to E+72h	Incident Observed: Establish HazMat zones	HazMat IR Team	Local law enforcement agencies, FBI	<ul style="list-style-type: none"> • The FBI may determine that the FBI should manage the task of search and recovery through the FBI Hazardous Materials Response Unit. • The HazMat zones will be established to secure the incident location and guide conduct of first responders within the respective boundaries: See Section E7.2.1 for a description of each zone
	44	E to E+72h	Incident Observed: Identify appropriate level of PPE required for conducting operations in each zone	HazMat IR Team	DMORT WMD	PPE Levels A, B, C, D
	45	E to E+72h	Establish fatality collection points	Coroner	DMORT WMD, HazMat IR Team	Establish separate fatality collection points for contaminated and non-contaminate remains
	46	E to E+72h	Establish decontamination operations area	DMORT WMD, HazMat IR Team	Coroner	—
	47	E to E+72h	Establish remains pick-up site	Coroner	HazMat IR Team, Incident Commander	—
	48	E to E+72h	Establish holding morgues	Coroner	DMORT WMD	—
	49	E to E+72h	Establish Incident Morgue	Coroner	DMORT	—

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A10. OBJECTIVE Conduct the recovery of human remains and personal effects	50	E to E+72h	Deploy available recovery teams and resources, including trained personnel with appropriate levels of PPE	Coroner	HazMat IR Team	Portable bar code scanners can simplify and expedite the recording/tracking process.
	51	E to E+72h	Establish and execute grid or search pattern for human remains and personal effects	Coroner, FBI, HazMat IR Team	Field responders	Personnel must be HazMat certified and wear appropriate PPE to operate in the hot zone. Utilize GPS to aid in collection and documentation of post-mortem human remains, property, and evidence at the incident site, when possible
A10 (cont.)	52	E to E+72h	Document location(s) of remains and personal effects	Coroner, FBI, HazMat IR Team	Field responders	—
	53	E to E+72h	Transport human remains and personal effects to fatality collection point or holding morgue	Coroner, FBI, HazMat IR Team	Field responders, GSD, DOT	—
A11. OBJECTIVE Decontaminate recovered human remains	54	E to E+72h	Initiate transfer of human remains and personal effects from the fatality collection point or holding morgue to the decontamination site	Coroner, FBI, HazMat IR Team	DMAT, Field responders, GSD, DOT	<ul style="list-style-type: none"> DMORT WMD team, operating a dual system, is capable of decontaminating 8 human remains per hour. Inclement and hot weather conditions may slow the process down. DMORT WMD removes wastewater and does not allow it to run into the ground water system.
	55	E to E+72h	Initiate gross decontamination of human remains	DMORT WMD, Coroner, HazMat IR Team	FBI, DMORTs	<p>Confirm identity of chemical agent prior to start of decontamination, to aid in safe handling procedures.</p> <p>Possible Chemical Agent Decontamination Solutions:</p> <ul style="list-style-type: none"> Oily substances = soap and water All agents = 1-2% Bleach Solution (Remains must be in contact with sodium hypochlorite solution for a minimum of 5 minutes, preferably 15 minutes) The use of higher concentrations of bleach solution (5% or higher) can cause tissue decay
	56	E to E+72h	Incident Observed: Validate the effectiveness of decontamination	DMORT WMD,	HazMat IR Team	Use established chemical monitoring method
	57	E+72h to E+14d	Continue grid or search pattern for human remains and personal effects	Coroner, FBI, HazMat IR Team	Field responders	Personnel must be HazMat certified and wear appropriate PPE to operate in the hot zone. Utilize GPS to aid in collection and documentation of post-mortem human remains, property, and evidence at the incident site, when possible
B1. OBJECTIVE Continue recovery of human remains	58	E+72h to E+14d	Document location(s) of remains and personal effects	Coroner, FBI, HazMat IR Team	Field responders	—
	59	E+72h to E+14d	Transport human remains and personal effects to fatality collection point or holding morgue	Coroner, FBI, HazMat IR Team	Field responders, GSD	—
	60	E+72h to E+14d	Analyze current capabilities	DMORT, Coroner, HazMat IR Team, Incident Commander	Law Enforcement DOC	<p>The Law Enforcement DOC will gather information on Operational Area capabilities to support field response to the incident.</p> <p>The Incident Commander will assess all non-Coroner/HazMat capabilities, needs and requirements such as: firefighting, rescue, and perimeter control</p>
B2. OBJECTIVE Assess current mass fatality management capabilities and request additional resources as needed.	61	E+72h to E+14d	Determine resource needs and requirements	DMORT	Coroner, FBI, HazMat IR Team	—
	62	E+72h to E+14d	Submit resource requests to appropriate agency DOC	Coroner, HazMat IR Team	Law Enforcement DOC	Coroner requests will go to the Operational Area Coroner Mutual Aid Coordinator at the Law Enforcement DOC, and HazMat request will go to the Operational Area Fire and Rescue Mutual Aid Coordinator

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
B3. OBJECTIVE Conduct Incident Morgue operations	63	E+72h to E+14d	Transport decontaminated remains to Incident Morgue	Coroner, DMORT	Field responders, local law enforcement, GSD, DOT	GSD manages the county fleet and has the responsibility for acquiring vehicles under contracts. GSD can provide drivers when requested
	64	E+72h to E+14d	Establish morgue flow	Coroner, DMORT	Local law enforcement, FBI, CFDA	Basic procedures: <ul style="list-style-type: none"> • Perform detailed decontamination and monitoring if remains are not verified clean • Perform autopsy on designated remains • Perform detailed examination on all remains • Perform identification procedures • If embalming remains, perform final rinse after embalming procedures • Packaging or containerization
	65	E+72h to E+14d	Initiate operations for the identification of human remains	Coroner, DMORT	Local law enforcement, FBI, CFDA	DMORT WMD can transfer the responsibility of human remains processing to the DMORT Unit in an effort to focus on the decontamination process
B3 (cont.)	66	E+72h to E+14d	Collect and organize personal effects	Coroner, DMORT	Local law enforcement, FBI, CFDA	—
B4. OBJECTIVE Provide family assistance services	67	E+72h to E+14d	Establish an FAC	GSD, DMORT FAC, Coroner	MCDSES, CCHS, ARC, SA, CFDA	GSD can identify a facility in the County appropriate for use as an FAC
	68	E+72h to E+14d	Identify fully processed remains and personal effects for release to next-of-kin with FBI approval	FBI, Coroner, DMORT	Local law enforcement	Recommend determining location for storage/holding if FBI/U.S. Attorney do not authorize release of remains
	69	E+72h to E+14d	Expand family assistance services to provide comprehensive services	DMORT FAC, Coroner	MCDSES, PH, ARC, SA (and other NGOs, FBOs), DMORT, FEMA, CFDA	<ul style="list-style-type: none"> • Cal EMA may assist. • To include core management, operations and administrative teams. Core services include reception/registration; Coroner/Medical Examiner Services (family briefings, ante mortem data collection, and death notification); mental health services; spiritual care services; first aid/medical services; childcare; and others to meet situational requirements)
	70	E+72h to E+14d	Incident Observed: Provide security at FAC	Local law enforcement	Operational Area EOC and City/Town Law Enforcement DOCs	—
	71	E+72h to E+14d	Establish standardized system of communications/information management for collecting, managing, controlling, and sharing of information/data at FAC.	FAC Planning Section, DMORT, Coroner	Operational Area JIC, Private Sector Partners, CFDA	—
	72	E+72h to E+14d	Establish temporary repository of Public Records/Decedent Information Repository	Coroner, DMORT	Office of Vital Records	—
	73	E+72h to E+14d	Deliver antemortem victim records to temporary repository location	Coroner, DMORT	Secure delivery contractor or Coroner designee	—
	74	E+72h to E+14d	Establish antemortem and postmortem databases	Coroner, DMORT	Cal EMA	Medical, dental, and fatality management
	75	E+72h to E+14d	Cross-reference morgue data with local, State, Federal, and International missing persons databases to assist in the identification of remains	Coroner, DMORT	FAC, DOJ	—
	B5. OBJECTIVE Continue coordination and dissemination of public information through the Joint Information Center (JIC)	76	E+72h to E+14d	Coordinate and disseminate public information through the Operational Area JIC	Operational Area JIC	Coroner, local governments, State and Federal agencies, NGOs, CBOs, FAC
77		E+72h to E+14d	Incident Observed: Establish station in the FAC to receive information from the public regarding missing persons	FAC	Operational Area JIC	—
78		E+72h to E+14d	Initiate communication and coordination with FAC	FAC, Operational Area JIC	Coroner	—

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
B6. OBJECTIVE Continue decontamination of human remains	79	E+72h to E+14d	Continue transfer of human remains and personal effects from the fatality collection point to the decontamination site	Coroner, FBI, HazMat IR Team, DMORT WMD	Field responders	—
	80	E+72h to E+14d	Continue gross decontamination of human remains	,HazMat IR Team	DMORT WMD, Coroner, FBI	—
	81	E+72h to E+14d	Incident Observed: Continued validation of the effectiveness of decontamination of human remains	HazMat IR Team	DMORT WMD	Use established chemical monitoring method
B7. OBJECTIVE Release decontaminated human remains	82	E+72h to E+14d	Release authorized remains to next-of-kin	Coroner, DMORT	FAC	—
	83	E+72h to E+14d	Release or store unclaimed human remains	DMORT, Coroner	—	—
	84	E+72h to E+14d	Determine the need for altered standards of death care that may include government mandated burial processes	Coroner, DMORT	Death care industries, elected officials	See Appendix G
B8. OBJECTIVE Implement stress management and crisis intervention strategies	85	E+72h to E+14d	Incident Observed: Request critical incident stress management teams to support fatality management response personnel	Operational Area EOC	PH, CLECA	—
	86	E+72h to E+14d	Incident Observed: Deploy critical incident stress management teams to incident location, Incident Morgue, and FAC	Operational Area EOC	PH, CLECA	—
C1. OBJECTIVE Conduct final assessment of the impact site and plume zone to ascertain whether any human remains are present	87	E+14d to E+60d	Re-establish site assessment teams	Incident Commander	Coroner, HazMat IR Team, Local law enforcement agency, FBI, Local fire agency	Assign Coroner and FBI team leaders for each Site Assessment Team. First responders for this incident are likely to include: <ul style="list-style-type: none"> • Fire • HazMat • AMR • FBI • Local law enforcement
	88	E+14d to E+60d	Estimate the potential number of remaining deceased and the presence of remains or personal effects	Coroner	Fire and rescue responders	—
	89	E+14d to E+60d	Incident Observed: Identify the extent of remaining contamination	HazMat IR Team	EHD, EPA	To identify the extent of remaining contamination the HazMat IR Team should investigate the following: <ul style="list-style-type: none"> • Levels of the contaminant on surfaces and in the air • Boundary of the Hot Zone • The potential for the Hot Zone to expand on contact based on the potential spread of the contaminant by air or the movement of contaminated people/objects • Presence of contaminant in the environment
C2. OBJECTIVE Continue decontamination of human remains	90	E+14d to E+60d	Continue transfer of human remains and personal effects from the fatality collection point to the decontamination site	Coroner, FBI, HazMat IR Team	Field responders	—
	91	E+14d to E+60d	Continue gross decontamination of human remains	HazMat IR Team	Coroner, DMORT WMD, FBI	Confirm identity of chemical agent prior to start of decontamination, to aid in safe handling procedures
	92	E+14d to E+60d	Validate the effectiveness of decontamination	HazMat IR Team	DMORT WMD	—
C3. OBJECTIVE Continue coordination and dissemination of public information through the JIC	93	E+14d to E+60d	Coordinate and disseminate public information through the Operational Area JIC	Operational Area JIC	Coroner, local governments, State and Federal agencies, NGOs, CBOs, FAC	—
	94	E+14d to E+60d	Establish a station in the FAC to receive information from the public regarding mission persons	FAC	Operational Area JIC	—
	95	E+14d to E+60d	Initiate communication and coordination with FAC	FAC, Operational Area JIC	Coroner	—

Table E-1. Response timeline for management of mass fatalities after a catastrophic CBRNE incident.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
C4. OBJECTIVE Continue operation of the Incident Morgue until the majority of human remains have been processed	96	E+14d to E+60d	Transport decontaminated remains to Incident Morgue	Coroner, DMORT	Field responders	Private sector transportation providers may be contracted
	97	E+14d to E+60d	Initiate operations for the identification of human remains	Coroner, DMORT	Local law enforcement, CFDA	—
	98	E+14d to E+60d	Collect and organize personal effects	Coroner, DMORT	Local law enforcement, FBI, CFDA	—
C5. OBJECTIVE Continue operation of the FAC	99	E+14d to E+60d	Determine which remains and personal effects can be released to family members	FBI, Coroner	DMORT, Local law enforcement	Recommend determining location for storage/holding if FBI/U.S. Attorney do not authorize release of remains
	100	E+14d to E+60d	Coordinate with the State regarding next-of-kin notification and collection of antemortem information assistance	Coroner	DMORT, Cal EMA, DOJ	Missing Unidentified Persons System
	101	E+14d to E+60d	Deliver antemortem victim records to temporary repository location	Coroner	Secure delivery contractor or Coroner designee	—
C5 (cont.)	102	E+14d to E+60d	Cross-reference morgue data with local, State, Federal, and International missing persons databases to assist in the identification of remains	Coroner, DMORT	FAC	—
C6. OBJECTIVE Continue release of decontaminated human remains	103	E+14d to E+60d	Release authorized remains to next-of-kin	Coroner, DMORT	FAC	—
	104	E+14d to E+60d	Release or store unclaimed human remains	DMORT, Coroner	—	—
	105	E+14d to E+60d	Determine the need for altered standards of death care that may include government mandated burial processes	Coroner, DMORT	Death care industries, elected officials	See Appendix G
C7. OBJECTIVE Continue to provide critical incident stress management services to responders and friends and family of the deceased.	106	E+14d to E+60d	Incident Observed: Continue to provide critical incident stress management teams to support fatality management response personnel	Operational Area EOC	PH, CLECA	—
	107	E+14d to E+60d	Incident Observed: Continue to provide critical incident stress management teams at the incident location, Incident Morgue, and FAC	Operational Area EOC	PH, CLECA	—
C8. OBJECTIVE Plan for transition to long-term fatality management operations	108	E+14d to E+60d	Establish an advanced planning unit to plan for long-term recovery planning	Operational Area EOC	Operational Area EOC Planning Section, Coroner	—
C9. OBJECTIVE Demobilize unused resources	109	E+14d to E+60d	Demobilize all unused facilities and release all unused resources	Coroner	Operational Area EOC	—
	110	E+14d to E+60d	Notify mass fatality partners on conclusion of any demobilization efforts	Coroner	Operational Area JIC	—

— = Not applicable
 AMR = American Medical Response
 ARC = American Red Cross
 Cal EMA = California Emergency Management Agency
 CBO = community-based organization
 CFDA = California Funeral Directors Association
 CLECA = California Law Enforcement Chaplains Association
 CONPLAN = San Francisco Bay Area Earthquake Readiness Response: Concept of Operations Plan
 d = days
 DMAT = Disaster Medical Assistance Team

DMORT = Disaster Mortuary Operational Response Team
 DMORT WMD = Disaster Mortuary Operational Response Team Weapons of Mass Destruction
 DOC = Department Operations Center
 DOJ = Department of Justice
 DOT = California Department of Transportation
 EHD = Monterey County Environmental Health Division
 MCDSES = Monterey County Department of Social and Employment Services
 EOC = Emergency Operations Center

EPA = Environmental Protection Agency
 FAC = Family Assistance Center
 FBI = Federal Bureau of Investigation
 FBO = faith-based organization
 FEMA = Federal Emergency Management Agency
 GSD = General Services Department
 h = hours
 HazMat = hazardous materials
 IR = Incident Response
 JFO = Joint Field Office

JIC = Joint Information Center
 NGO = nongovernmental organization
 PH = Monterey County Public Health Division
 PPE = Personal Protective Equipment
 REOC = Regional Emergency Operations Center
 SA = The Salvation Army
 SCBA = Self-contained breathing apparatus
 SEMS = Standardized Emergency Management System
 SOC = State Operations Center
 US&R = Urban Search and Rescue

**Appendix F:
Pandemic Influenza Event**

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Table of Contents

F1	Scope	F-1
	F1.1 Nature and Duration of the Scenario Event	F-1
	F1.2 Time Frame	F-2
F2	Applicability	F-4
F3	Authorities, Regulations, and Requirements	F-4
F4	Roles and Responsibilities	F-4
F5	Scenario Event Development Methodology and Assumptions	F-6
	F5.1 Scenario Event Development Methodology	F-6
	F5.2 Scenario Event Assumptions	F-7
F6	Concept of Operations	F-11
	F6.1 Objectives for Response.....	F-12
	F6.1.1 E to E+72 Hours	F-12
	F6.1.2 E+72 Hours to E+14 Days.....	F-12
	F6.1.3 E+14 Days to E+60 Days	F-13
	F6.2 Coordination	F-14
	F6.2.1 Regional Coroner Coordination	F-14
	F6.2.2 Coordination on Public Messaging	F-15
	F6.3 Situation Reporting	F-16
	F6.4 Considerations for Altering the Standards of Death Care	F-16
	F6.4.1 Delayed Recovery of the Deceased	F-17
	F6.4.2 Temporary, Alternative or Non-Refrigerated Storage Facilities	F-18
	F6.4.3 Delayed, Limited or Lack of Positive Identification of the Deceased	F-19
	F6.4.4 Delayed, Limited or No Examination/Autopsy	F-19
	F6.4.5 Delayed or Absent Funeral Service or Memorial	F-20
	F6.4.6 Multiple-Depth Graves.....	F-20
	F6.4.7 Temporary Interment	F-20
	F6.4.8 Cremation.....	F-20
	F6.4.9 Mass Cremation	F-21
	F6.5 Virtual Family Assistance Centers	F-21
F7	Long-term Recovery	F-22
F8	Response Timeline	F-23

List of Figures

Figure F-1	Centers for Disease Control Pandemic Severity Index.....	F-2
Figure F-2	Phases, stages, and intervals of a pandemic influenza	F-3

List of Tables

Table F-1 Pandemic influenza projected number of exposures and fatalities in Monterey
County and the Bay Area over 18 months..... F-7

Table F-2 Response tasks timeline for mass fatality operations in a pandemic influenza. F-24

Appendix F: Pandemic Influenza Event

A severe pandemic influenza would result in a massive number of fatalities in Monterey County and the Bay Area region. Mutual aid and State and Federal assistance would be unavailable because of the nationwide impact, the duration of the pandemic would be protracted, the intensity and duration of the pandemic would be similar in all jurisdictions, and staff and partners involved in responding to an event with mass fatalities would be affected by the pandemic. All of these factors would create difficult challenges for the Monterey County Office of the Sheriff, Coroner's Division.

F1 Scope

This appendix describes the key elements of a county mass fatality response to a severe pandemic influenza scenario and provides the California Emergency Management Agency (Cal EMA) and the California Department of Public Health with situational awareness of the Monterey Operational Area mass fatality operations and related regional coordination. Tactics are not addressed. The approach is driven by the need for the Monterey Operational Area to be self-sufficient in terms of the mass fatality response because of the anticipated unavailability of mutual aid and State and Federal assistance.

F1.1 Nature and Duration of the Scenario Event

The scenario event is a Category 5 pandemic influenza that lasts from 8 to 10 months. Pandemics are categorized by the Centers for Disease Control and Prevention (CDC) on a scale of 1 to 5¹ (least to most severe), and the categories are based primarily on the case-fatality ratio. The Centers for Disease Control Pandemic Severity Index is shown in **Figure F-1**.

The methodology used to develop the scenario event is described in **Section F5.1**, and the assumptions about the scenario event are listed in **Section F5.2**.

Mutual aid and other forms of assistance are unavailable, other than supplies and pharmaceuticals from State and Federal stockpiles, because of the nationwide impact of the pandemic. The Coroner, hospitals, and the private death care industry are overwhelmed and quickly become exhausted, forcing jurisdictions to alter or waive Normal Standards of Death Care (see **Appendix G**). Waiving standards of death care creates an incident response and social environment not experienced in the United States since the pandemic influenza of 1918.

¹ A Category 5 pandemic has a case-fatality ratio of 2 percent or higher.

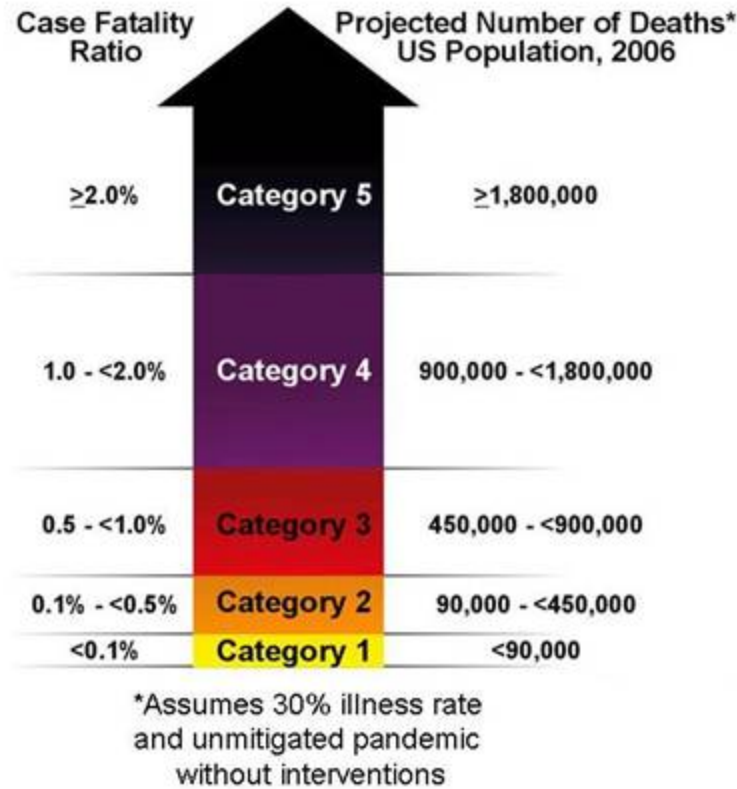


Figure F-1. Centers for Disease Control Pandemic Severity Index.²

F1.2 Time Frame

Pandemics are divided into phases, stages, and intervals (see **Figure F-2**). Pandemic intervals are designed to inform and complement the use of the Pandemic Severity Index for choosing appropriate mitigation strategies. The intervals indicate when to act, and the index indicates how to act.

Two of the intervals are the Acceleration Interval and the Peak Transmission Interval, which are defined as follows:

- **Acceleration Interval:** Begins in a State when public health officials have identified that containment efforts have not succeeded, onward transmission is occurring, or there are two or more laboratory-confirmed cases in the State that are not epidemiologically linked to any previous case.
- **Peak Transmission Interval:** Transmission is established, and the pandemic wave is at a peak. The intervals include extensive transmission in the community and the highest number of newly identified cases in the State. The Peak

² Centers for Disease Control and Prevention. Goals of Community Measures. Accessed on March 14, 2010 at www.cdc.gov/media/pdf/Mitigation_Slides.pdf.

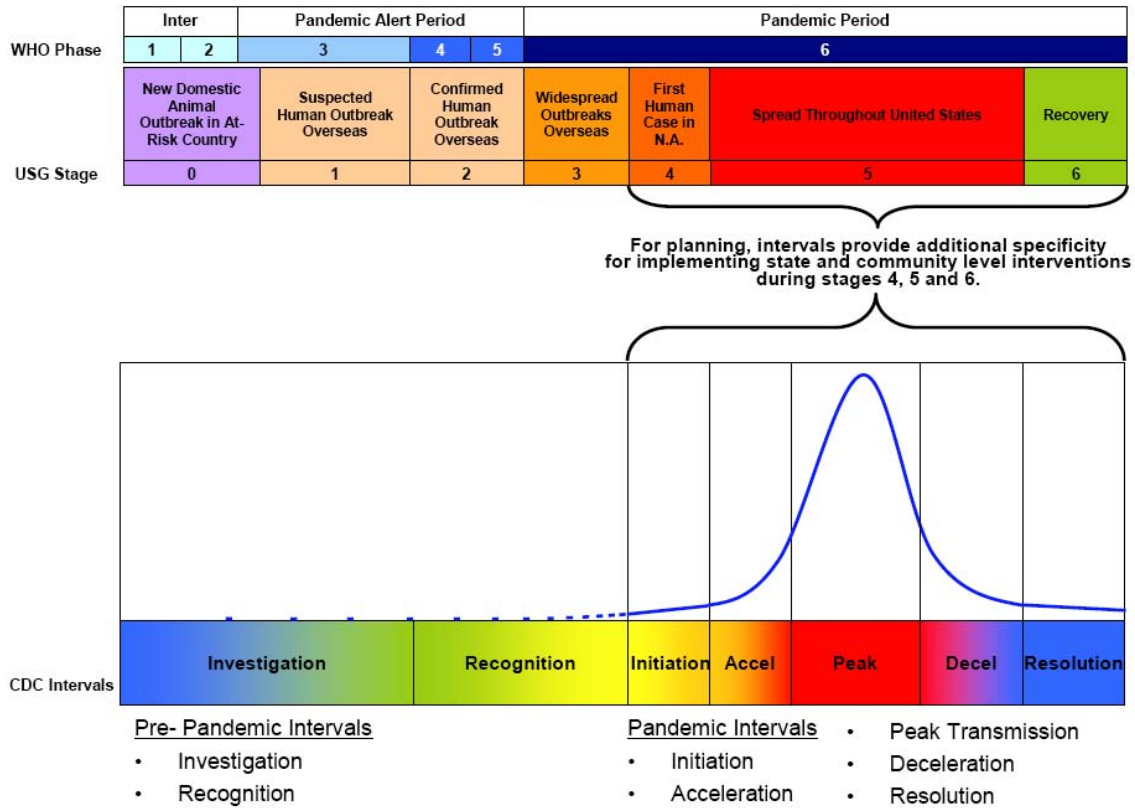


Figure F-2. Phases, stages, and intervals of a pandemic influenza.³

Transmission Interval is likely to correlate with a peak in the number of influenza-related fatalities.

The time frame for the scenario pandemic influenza begins with the event (E), defined in the scenario as the beginning of the Acceleration Interval, and ending at E+60 days. Planning during the E to E+60 day time frame is focused on operations during the Peak Transmission Interval.

The appendix does not address planning or response activities that may occur prior to the event (E) or long-term activities that may occur after E+60 days. However, **Section F7** provides broad guidance on long-term regional mass fatality management operations during a pandemic influenza.

³ U.S. Department of Health and Human Services. Key Elements Departmental Pandemic Influenza Operational Plans. August 2008. Accessed on March 14, 2010, at www.flu.gov/professional/federal/operationalplans.html.

F2 Applicability

Appendix F is an incident-specific appendix to the Monterey Operational Area Mass Fatality Plan, which is a function-specific subsidiary plan of the Monterey Operational Area Emergency Operations Plan.

Appendix F is consistent with the following:

- **Monterey County Public Health Influenza Plan**
- **California Department of Public Health Pandemic Influenza Preparedness and Response Plan**
- California Mass Fatality Management Guide: A Supplement to the State of California Coroners' Mutual Aid Plan
- San Francisco Bay Area Catastrophic Earthquake Readiness Response Concept of Operations Plan, prepared by the Federal Emergency Management Agency (FEMA)

F3 Authorities, Regulations, and Requirements

Local, State, and Federal authorities, regulations, and requirements that apply to the preparation of this appendix and to mass fatality operations conducted in response to a pandemic influenza are identified in **Section 1.7** of the main document.

Although it is assumed that mutual aid will not be available, severely limited State and Federal assistance may be available and, if it is provided, it will be governed by these authorities, regulations, and requirements.

F4 Roles and Responsibilities

The roles and responsibilities of agencies and key players involved in a pandemic influenza mass fatality response differ slightly from those described in **Section 3** in the main document in response to an earthquake. The roles and responsibilities in a pandemic influenza are as follows:

- **Monterey County Office of the Sheriff, Coroner's Division (Coroner):**
The Coroner is responsible for collaborating with the Operational Area, communicating with the Operational Area Emergency Operations Center (EOC), and providing expertise during mass fatality planning efforts. The Coroner plays a key role in developing and implementing the Monterey Operational Area Mass Fatality Response Plan and **overseeing the handling of human remains.**

Many fatalities in a pandemic influenza will not require an autopsy to confirm influenza as the cause of death. It is likely that once a pandemic event has begun, many cases will be identified as natural deaths and the Coroner's lack of jurisdiction will be waived. Although the Coroner will not be tasked to autopsy all influenza-caused deaths, some cases may fall under the jurisdiction of the Coroner. These cases include:

- Initial deaths to determine the presence of the pandemic influenza strain
 - Deaths with no attending physician
 - Deaths in which the identity of the body is unknown despite normal investigative procedures
 - Deaths that are inconsistent with other pandemic influenza fatality cases
 - Deaths of persons in State or local custody or protection, such as inmates
 - Deaths that fall under normal Coroner duties not related to the pandemic influenza
- **Health Officer, Monterey County Health Services, Public Health Division:** The health officer should coordinate and communicate with all agencies involved in the pandemic influenza response including the Coroner, health-care service providers, and **the death care industry** regarding mass fatality response efforts and plan activation. The health officer should be involved with developing response priorities and objectives; assisting with sourcing (e.g., human remains storage); and designating responsibilities such as resource availability and tracking, surge capacity, safety standards such as infection control, and mental health considerations.
 - **Health-care facilities** (e.g., hospitals, nursing homes, alternate care facilities): Individual facilities in the health-care industry should coordinate with the Coroner, Public Health Division, and Emergency Medical Services (EMS) agency to establish efficient processes for releasing decedents to authorized persons in order to focus care on the living. **The hospitals and other inpatient health-care providers must secure extensive amounts of temporary storage of human remains for an extended period and that are separate from the Coroner storage.** Health-care facilities must provide training for employees on how to handle remains, implement infection-control protocols, and notify the county Public Health Division of an influenza-related death.
 - **Law enforcement:** Law enforcement is responsible for responding to unattended deaths (e.g., private residences, businesses, and public places).
 - **Death care industry** (e.g., funeral homes, crematoriums, cemeteries, and transportation providers): Entities in the death care industry should coordinate with hospitals and the Coroner to prepare for the final disposition of influenza-related deaths. To accommodate the surge, the death care industry is responsible for acquiring additional equipment and supplies. If the decedent will not to be cremated, procedures to expedite the embalming process should be in place. Remains may need to be stored temporarily before or after embalming or for the duration of the pandemic. Funeral homes, crematoriums, and cemeteries should take precautions to protect employees against blood-borne pathogens and viral infection from decedents and the public.

- **Private citizens:** When coping with influenza-related deaths of loved ones, private citizens should be aware of public information regarding the nature of the pandemic influenza event. Citizens should follow the at-home death protocols described through official media broadcasts, which may include reporting at-home deaths to the proper officials, pronouncing and certifying remains, using health and safety precautions when handling decedents, and transporting decedents. In extreme cases, private citizens may be instructed to prepare the deceased for recovery from the private residence, and/or be asked to transport the deceased to a fatality collection point, county morgue/temporary morgue, or hospital.

F5 Scenario Event Development Methodology and Assumptions

This section presents the pandemic influenza scenario development methodology, the scenario details, projected impacts of the event, and the assumptions specific to the scenario event.

F5.1 Scenario Event Development Methodology

The pandemic influenza planning event was developed to guide the response of Monterey County to a long-term catastrophic mass fatality event. The scenario simulates an environment with a high number of fatalities without the assistance of mutual aid, State, out-of-state, or Federal resources.

The scenario was developed in accordance with the pandemic influenza scenario development methodology contained in the U.S. Department of Health and Human Services (HHS) Pandemic Influenza Plan (2005). For the scenario event, the 1918-like scenario was chosen over the 1957-like or 1968-like scenario because HHS recommends planning for the more severe scenario. The 1918 pandemic was more severe than the 1957 or 1968 pandemics. The selected 1918-like scenario was refined using a hybrid of historical documentation of the 1918 pandemic influenza impact in California and HHS's Pandemic Influenza Plan planning assumptions, which focus on modern medical advancements and sewer and sanitation improvements, as the justification for projecting a slightly lower mortality rate.

The HHS 1918-like pandemic influenza scenario assumes a 2.2 percent mortality rate, but the mortality rate presented in the scenario event in this appendix is 2.0 percent, which is slightly lower because of modern medical advancements. However, universal access to vaccines, antiviral medications, and ventilators will not be possible because of limited quantities. The 1918 pandemic lasted approximately 18 months worldwide with 3 distinct waves, each lasting 6 to 8 weeks. The 1918 pandemic in the United States lasted 9 to 10 months. The first wave was characterized by an uneven fatality rate during the first 6 months and was mild in comparison to the second and third waves. The second and third waves were exceptionally severe, yielding the vast majority of the fatalities in the United States.

The pandemic planning scenario for this appendix assumes a 9- to 10-month 1918-like pandemic influenza but with only two waves, each lasting 6 to 8 weeks and separated by an almost undetectable interwave period lasting 8 weeks. The estimated attack rate of 30 percent and mortality rate of 2 percent are based on extrapolations from past pandemics in the United States. The 2009 population of each county in the 12-county Bay Area region was multiplied by the attack and mortality rates to obtain the number of people in each county who would become infected or die from pandemic influenza infection. The 2009 population for the 12 Bay Area counties was derived by using Census 2000 data as a baseline, and the applicable percent increase in population between 2000 and 2009 for each of the 12 Bay Area counties was applied.

To maximize the benefit of planning for a 1918-like pandemic influenza, the appendix includes response operations from E to E+60 days. The event begins when the Acceleration Interval for the first pandemic wave begins, as defined by CDC’s Pandemic Severity Index. Response operations after E+60 days are presented in less detail (see **Section F7**). The E to E+60 days time frame includes operations during the first wave, which will help prepare for response operations for the most overwhelming circumstances during the pandemic influenza.

F5.2 Scenario Event Assumptions

1. The pandemic begins in September and lasts 9 to 10 months. The pandemic has two waves, each lasting 6 to 8 weeks.⁴ In the first wave, there are 1,600 local fatalities and 29,400 regional fatalities, and in the second wave, 1,000 local fatalities and 19,400 regional fatalities (see **Table F-1**).

Table F-1. Pandemic influenza projected number of infections and fatalities in Monterey County and the Bay Area over 18 months.

County/Region	Population	Number Infected ¹	First Wave Fatalities ²	Second Wave Fatalities ³	Total Fatalities ⁴
Monterey County	431,900	129,600	1,600	1,000	2,600
Bay Area Region	8,133,500	2,440,200	29,400	19,400	48,800

Sources: Population data from 2000 U.S. Census, adjusted to 2009 as described in **Section F5.1**; attack and mortality rates from U.S. Department of Health and Human Services Pandemic Influenza Plan and Centers for Disease Control.

- ¹ Numbers based on a 30% attack rate. Numbers rounded to the nearest hundred.
- ² Numbers represent 60% of the total influenza-related fatalities and are based on a 2% mortality rate. Numbers rounded to the nearest hundred.
- ³ Numbers represent 40% of the total influenza-related fatalities and are based on a 2% mortality rate. Numbers rounded to the nearest hundred.
- ⁴ Numbers rounded to the nearest hundred.

⁴ The first pandemic wave occurs during E to E+60 days. The second wave considerations are presented in **Section F7**.

2. All areas in Monterey County are affected simultaneously with the same vigor.
3. The fatalities are widely dispersed geographically and a significant number occur in private residences.
4. Pandemic influenza-related deaths are both attended and unattended.
5. Between 50 and 75 percent of influenza-related deaths occur outside a hospital or medical treatment facility.
6. Determining the jurisdiction of fatalities may present unforeseen complexities. Military, private, foreign consulate, and tribal issues may generate jurisdictional and/or political challenges.
7. Response capabilities of Monterey County are overwhelmed by two severe pandemic waves and mortality rate of 2 percent of those infected.
8. The duration of the event requires long-term mass fatality management operations at maximum surge capacity levels.
9. The Coroner, health-care facilities, and the death care industry are overwhelmed and their resources quickly become exhausted. They struggle to provide a minimum level of service.
10. Monterey County needs to be self-sufficient and capable of recovering, securing, transporting, tracking, processing, and conducting final disposition of the deceased, without mutual aid assistance or aid from the State and Federal governments.
11. If the State is able to provide any support, the assistance is to identify storage facilities, transportation resources, and vendors of body bags and other mass fatality resources. The State also assists with suspension or implementation of laws or regulations needed to assist the Coroner and Vital Records with expediting the issuance of death certificates.
12. Pandemic influenza deaths are not under the codified jurisdiction of the Coroner, placing the burden of fatality management on hospitals and the death care industry, which are less experienced than Coroners with processing a high volume of fatalities. In addition, hospitals focus primarily on life safety.
13. The high number of fatalities over a relatively short period and limited existing local resources to recover the decedents may result in delayed recovery of the remains.
14. The Public Health Division, through the authority of the health officer, authorizes the Coroner to take jurisdiction of fatalities related to the pandemic influenza. The Coroner takes a leadership role and oversees pandemic-related mass fatality operations because of their existing role in the management of fatalities.

15. Local and State officials seek a waiver of selective regulatory codes/statutes pertaining to day-to-day Coroner operations to allow for effective and timely mass fatality management.
16. The Coroner, Public Health Division, health-care facilities, and the death care industry maintain close coordination to maximize county-wide surge capacity response capabilities with a focus on hospitals significantly expanding morgue capacities by adapting alternative space to accommodate the severe surge in mortality rates.
17. The Coroner develops procedures to recover, identify, track, and transport human remains located at private residences.
18. The Coroner, health-care facilities, and the death care industry continue to incur normal daily case loads.
19. The workload of the death care industry is triple the normal workload in a 6- to 8-week period.
20. Resource shortages occur because of disruption of manufacturing and distribution networks from worker absenteeism.
21. Disruption in operations of publicly- and privately-owned critical infrastructure occurs because of absenteeism.
22. Up to 40 percent of the Coroner, health-care facilities, and death care industry staff are absent from work because of personal and family illness and death.
23. The Coroner, health-care facilities, and death care industry identify and train alternative staff or volunteers to assist in mass fatality operations (e.g., removal service staff, Medical Reserve Corps volunteers).
24. Effective and efficient mass fatality operations depend on expedited access to the following:
 - A large number of fixed or portable temperature-controlled/air-conditioned clear span or other existing facilities for temporary morgues.
 - A large number of refrigerated vehicles for the transportation and/or temporary storage of human remains.
 - A large amount of fatality management equipment and supplies, e.g., body bags and personal protective equipment (PPE).
25. The supply of refrigerated trucks does not meet the demand, making it difficult to ensure proper storage/transportation for the deceased.
26. Remains processing has throughput limitations because of limited access to trained personnel, equipment, and facilities.
27. The availability of law enforcement personnel needed for securing mass fatality management-related sites/facilities is limited.

28. The Coroner or designee coordinates with local emergency managers to develop a virtual system to provide family assistance services to comply with social distancing orders from the health officer, which consists of pushing information out, rather than pulling people into a facility.
29. Local and State agencies coordinate to provide a support structure for personnel, including provision of food and beverages, accommodations, sanitation, and critical incident stress management support.
30. Local and State agencies coordinate to provide timely and accurate information distributed to the media, the public, and the political leadership regarding the processing of death certificates and burial permits.
31. Local and State agencies coordinate and develop risk communication messages for the public that include the realities of preparing, recovering, storing, and processing the deceased without timely government assistance.
32. Personnel are deployed in several functional locations, making communications coordination and facilitation among the Coroner staff difficult.
33. The Public Health Division and the California Department of Public Health (CDPH) assist agencies in the use of the California Health Alert Network to communicate information regarding mass fatality operations.
34. The Governor amends or suspends Title 22 of the California Code of Regulations so that the biowaste and other bodily fluids from human remains are not classified as hazardous materials.
35. The Governor issues, amends, or rescinds Executive Orders, proclamations, or statutes to deal with the disposition of human remains.
36. The State may establish a “standard” method of final disposition by issuing an Executive Order or by other legal means.
37. The Coroner, in consultation with response partners, may consider implementing appropriate and select Altered Standards of Death Care, which may include temporary interment and/or mass cremation of the deceased.
38. The need to consider the varied cultural/religious practices may overburden the task of final disposition of human remains.
39. Military final disposition protocols need to be considered, as appropriate.
40. Health officers suspend mass gatherings for funeral rituals to mitigate the spread of disease.
41. Vital Records is immediately overwhelmed, hindering the processing of death certificates and permits for disposition. The Coroner and Vital Records batch process death certificates and permits for disposition to expedite final disposition of decedents.

42. Additional personnel to augment Vital Records staff to meet surge capacity demands are identified and recruited by local health departments.
43. Local and State law enforcement agencies assist in the identification and recruitment of additional personnel to send death notification information to the appropriate out-of-state law enforcement agency for notifying out-of-state next of kin.
44. Local and State agencies coordinate to streamline the process for issuance of death certificates and permits for final disposition.
45. The State Department of Justice assists with identifying the deceased through its missing persons database.
46. The Coroner, Vital Records, and hospitals coordinate with private insurance agencies to address fraud and wrongful death cases, and to provide public information to mitigate fraudulent practices.
47. The State coordinates the repatriation of deceased foreign nationals.

F6 Concept of Operations

The lack of mutual aid and limited State and Federal assistance requires local governments to be self-sufficient in managing the surge in fatalities resulting from the pandemic influenza. Therefore, the Monterey Operational Area will operate independently. The Concept of Operations for pandemic influenza mass fatality response will focus on the operations conducted by the Operational Area. The Concept of Operations includes the following:

- Information sharing across local, State, and Federal agencies and the private sector
- Coordinated public information dissemination to ensure message uniformity across Monterey County
- Regionalized public information dissemination to ensure message uniformity across the region
- Coordination among the region's Coroners/Medical Examiners using the mechanisms defined in the Regional Emergency Coordination Plan, Law Enforcement and Coroner/Medical Examiner Subsidiary Plan, to establish regional consensus on applying select Altered Standards of Death Care
- Identification and integration of available private-sector mass fatality management resources
- Use of non-Coroner emergency response and management staff in mass fatality management and support roles
- Establishment and operation of a system to provide virtual Family Assistance Centers (vFACs) when social distancing orders are issued by the health officer

F6.1 Objectives for Response

This section provides a description of the operational priorities and response objectives in the mass fatality functional area for each phase.

F6.1.1 E to E+72 Hours

Operational priorities:

- Identify the number of influenza-caused deaths and the location of the remains
- Expand mass fatality response capabilities
- Initiate collection and recovery of human remains

Response objectives:

- Plan and coordinate mass fatality management operations with Coroner's Division, Public Health Division, and health-care facilities.
- Obtain situational awareness on the impacts of the pandemic influenza
- Identify mass fatality management capabilities, resource requirements and needs
- Submit initial mass fatality management resource requests
- Identify and integrate additional staff to augment recovery, transportation, morgue, hospital, and Vital Records operations
- Coordinate and disseminate public information through the Joint Information System (JIS)
- Establish a system to collect and recover human remains
- Collect and recover human remains
- Establish a system to transport and temporarily store human remains
- Expand morgue capacity and conduct morgue operations
- Initiate family assistance services to include the establishment and operation of vFACs

F6.1.2 E+72 Hours to E+14 Days

Operational priorities:

- Continue to collect and recover all human remains as the pandemic progresses
- Coordinate the transport, storage, processing, identification and final disposition of human remains
- Provide vFACs

Response objectives:

- Re-assess current mass fatality management capabilities, resource requirements and needs
- Continue to collect and recover human remains

- Review, select, and implement appropriate and select Altered Standards of Death Care in coordination with other Bay Area counties and the State of California
- Coroner's Division, Public Health Division, and hospitals approve fatality collection points
- Coroner's Division and the Public Health Division communicate numbers of fatalities and trends to county officials, emergency managers, hospitals, and Vital Records
- Coroner's Division, Public Health Division, and health-care facilities coordinate to significantly increase storage capacity
- Establish system for the mass issuance of death certificates for influenza-caused deaths
- Continue to operate county and hospital morgues at full capacity
- Continue coordination and dissemination of public information through the JIS and vFACs.
- Provide vFACs
- Implement stress management and crisis intervention strategies

F6.1.3 E+14 Days to E+60 Days

Operational priorities:

- Collect and recover all human remains associated with the first wave of the pandemic influenza
- Conduct temporary interment or final disposition of human remains when possible
- Prepare for the second wave of pandemic influenza

Response objectives:

- Plan for second wave of pandemic influenza
- Replenish local resources to support mass fatality response operations in anticipation of the second wave of fatalities
- Continue to collect and recover human remains
- Store, release, temporarily inter, or facilitate the final disposition of human remains
- Provide stress management and crisis intervention services for mass fatality management personnel and friends and family of the deceased
- Reconstitute county and hospital morgues in anticipation of the second wave of fatalities

F6.2 Coordination

F6.2.1 Regional Coroner Coordination

A pandemic influenza-related mass fatality event will exceed the capacity of the Monterey Operational Area to respond effectively. Because a severe pandemic influenza event will affect the region as a whole, the entire region will not have adequate resources. Despite insufficient personnel, equipment, supplies, and facilities, the Coroner and public and private hospitals will be forced to closely coordinate and support, with equal investment, pandemic influenza-related fatalities within the confines of the Operational Area and without mutual aid.

State and Federal resources will also be overwhelmed, and local agencies will have to make difficult choices to maximize the use of available resources. Mechanisms such as the strategic implementation of Altered Standards of Death Care may assist with clearing bottlenecks in the processing and final disposition of decedents (see **Appendix G**). During this event, the Coroner/Medical Examiner Mutual Aid Coordinator and/or the Cal EMA Coastal **Region** Law Enforcement Branch Director may convene the Coroners/Medical Examiners in affected counties via conference call to consider the following issues:

- Development of Coroner/Medical Examiner strategies to maximize the use of limited resources
- Situational reporting to capture estimated number of deaths, burial management, cremation management, and hospital coordination
- Development of consistent regional public messages
- Development of Coroner/Medical Examiner strategies to maximize the use of non-traditional Coroner/Medical Examiner personnel to augment staff
- Consideration of regional adoption of select Altered Standards of Death Care

The Cal EMA Coastal Region Law Enforcement Branch Director or Cal EMA Coastal Region Coroner/Medical Examiner Unit Leader may convene a Cal EMA Coastal Region Coroner/Medical Examiner conference call to coordinate regional pandemic influenza-related mass fatality discussions regarding Coroner/Medical Examiner mutual aid. The call should include the following representatives:

- Region II Coroner/Medical Examiner Mutual Aid Coordinators
- County Coroners/Medical Examiners

The conference call may include some or all of the following, as appropriate:

- Additional agency representatives and subject matter experts, such as death care industry representatives
- Mutual aid coordinators and/or branch coordinators from other disciplines

- Public and private hospital preparedness coordinators and other healthcare facilities
- County Public Health representatives

The following standard procedure is used for Cal EMA Coastal Region Coroner/ Medical Examiner conference calls:

1. The conference call convener determines participants and announces the conference call by email, website, telephone, or radio.
2. The conference call convener distributes the time, access phone number, access password, and call agenda by email, website, telephone, or radio.
3. The conference call convener assigns a staff person to document the call. The call may be recorded if participants are informed that the call is being recorded. The Cal EMA Coastal Region Planning Section Chief may be asked to provide staffing to document the conference call.
4. A roll call of participants is conducted at the start of the call.
5. The following discussion format is followed during the call:
 - Announce the conference call topic/problem to be solved
 - Document status on this topic (only) from all participants
 - Assess influenza-related fatality management strategies in the Operational Area to maximize limited resources
 - Discuss implementation of selective Altered Standards of Death Care and consider options and potential impacts across the region
 - Craft consistent regional public messages regarding the public's handling and transportation of the deceased who die at a private residence/business, the fatality management process, final disposition, and issuance of death certificates
 - Assign preparation of regional situational awareness report
 - Announce time and topic of the next conference call

F6.2.2 Coordination on Public Messaging

Because the jurisdictions in the Bay Area share media outlets, the Coroner, in coordination with the Emergency Public Information Officer team, should consider developing consistent messaging. The Cal EMA Coastal Region Coroner conference call is the mechanism by which the Coroner can assist with the development of consistent messaging for Monterey County. The messaging will be forwarded to the Coroner for each county for distribution through the standard protocol used for the release of public information in the Operational Area.

F6.3 Situation Reporting

The Coroner and hospitals will coordinate to identify the number of influenza-related deaths at their facility. To ensure that remains are not double counted and to help connect remains to their county of origin, the Cal EMA State Operations Center (SOC) may specify that a unique decedent identifier be assigned to all decedents. The numbers of fatalities occurring at other locations in the Operational Area will be forwarded to the Situation Analysis Branch in the Planning Section of the Operational Area EOC to be combined and included in the Situation Report for the operational period.

The Situation Report will be shared with the State at specified intervals. Situational reports should capture the number of deaths, number of decedents released for final disposition, and the status of surge capabilities for morgues, hospital care facilities, and the death care industry.

The Cal EMA Coastal Region Law Enforcement Branch Director establishes and maintains communication with the Law Enforcement Branch at each activated Operational Area EOC. The Regional Law Enforcement Branch Director reports to the Regional Operations Section Chief on law enforcement activities in each Operational Area, and conveys resource needs and emerging issues. The Regional Law Enforcement Branch Director includes this information in a Branch Report (available in Response Information Management System [RIMS]) that is updated and provided to the Regional Operations Section Chief.

In turn, the Regional Law Enforcement Branch Director conveys information about regional resource allocations, regional situational awareness, and other information as requested to the Operational Area EOC law enforcement branches.

The Regional Law Enforcement Branch Director works directly with the State Law Enforcement Branch Coordinator. The Regional Law Enforcement Branch Director elevates requests and communicates issues and information received from the Operational Areas and from mutual aid coordinators that cannot be filled at the regional level. Information also flows to the State Level, Law Enforcement Branch through Regional Situation Reports and Action Plans.

F6.4 Considerations for Altering the Standards of Death Care

California law requires that all human remains be returned to the decedent's legal next of kin. The Monterey County Coroner's Office may not have adequate staff to manage the increased number of cases, causing delays in the return of the deceased and issuance of death certificates and burial permits, and/or requiring alternate means of decedent storage, such as temporary interment.

The massive number of influenza-related fatalities will render standard operating procedures ineffective for the efficient processing and final disposition of decedents.

Adoption of select Altered Standards of Death Care may be necessary to facilitate the management of the deceased.

Adoption of select Altered Standards of Death Care may disrupt culturally accepted means of processing decedents. Altered Standards of Death Care will be implemented only when all options for using Normal Standards of Death Care have been exhausted. Faith-based organizations and political entities acceptance of select implementation of Altered Standards of Death Care, preferably during the planning stages, is a key component to the successful adoption of the Altered Standards of Death Care.

The Monterey County Coroner's Office, in consultation with the Board of Supervisors and County Counsel, will participate in the consideration and application of select Altered Standards of Death Care through the Cal EMA Regional Coroner conference call to reduce stress and confusion among the public and assist with the processing and final disposition of the projected 2,600 fatalities countywide.

The trigger point for Monterey County to transition to Altered Standards of Death Care is 1,000 fatalities during the first pandemic influenza wave (see **Appendix G**). Not all of the 15 Altered Standards of Death Care are likely to be implemented, even for the severe pandemic influenza scenario.

F6.4.1 Delayed Recovery of the Deceased

The delayed recovery of the deceased will be a consequence of the pandemic influenza given the high number of fatalities over a relatively short period and the limited existing resources to recover the deceased. The urgency to recover the deceased may be slightly mitigated by the fact that most deceased will likely not be located in public spaces that create the urgency for prompt recovery. Most deceased will likely be at private residences, hospitals and other alternative care facilities.

Directives will be issued by the Coroner, in consultation with hospitals, to alternate care facilities and the general public to implement measures to accommodate delays in the recovery of the deceased. Alternate care facilities will be determined by the Public Health Division and EMS.

The in extreme cases the general public may be requested to prepare and/or transport their deceased to pre-designated fatality collection points, county/temporary morgues, or hospitals due to the protracted delay of home recovery of decedents. When deaths occur at home from the pandemic influenza, the process will likely require the involvement of law enforcement, EMS, funeral directors, human remains removal service and/or transport teams.

The Monterey County Office of the Sheriff, Coroner's Division; the Monterey Office of Emergency Services; and hospitals should determine the most appropriate means of coordinating residential recovery of decedents with local law enforcement when citizens call 911.

The Lead Death Investigator investigates a majority of cases by phone with input from the local law enforcement on scene. Local law enforcement will secure the body until the Coroner or designee takes custody of the body. In cases where the decedent died alone, local law enforcement will secure the estate and/or belongings and contact the Public Administrator to safeguard possessions until the next of kin can be notified.

For cases requiring an on-scene investigation, the Lead Death Investigator becomes part of the Residential Recovery Team. Storage will be enhanced by placing fatality collection points at designated health care facilities. The Coroner's Office and hospitals must be prepared to accept decedents arriving by private vehicle.

Elements that may be required include:

- A process to initiate recovery
- Pronounce death, and certify the death certificate
- Procedures for handling suspicious deaths
- Placement of the decedent in human remains pouches
- Transportation to the designated site

Proper planning may lessen the logistical burden on the Coroner for the recovery and transportation of decedents in non-health-care settings. California law allows next of kin to prepare decedents for final disposition. If individuals choose this option, they must:

- File a properly completed Certificate of Death, signed by the attending physician or Coroner, with the local registrar of births and deaths
- Obtain a Permit for Disposition from the local registrar of births and deaths
- Provide a casket or suitable container
- Make arrangements directly with the cemetery or crematory

The Coroner and hospitals will coordinate to arrange for identification and final disposition of decedents. Appropriate legal waivers must be obtained to implement the respective measures.

F6.4.2 Temporary, Alternative or Non-Refrigerated Storage Facilities

Temporary storage facilities such as refrigerated trucks may be used for the storage of the deceased prior to transfer to funeral homes. However, human remains can be held in refrigerated storage for no longer than approximately 6 months before the remains begin to decay.

To reduce any liability, Monterey County should avoid using trucks with markings of a supermarket chain or other companies because the use of such trucks for the storage of bodies may result in negative implications for business. It is assumed that these trucks

are no longer usable for their original function after being used for the storage of human remains.

Although refrigeration is considered a viable alternative for single-site mass fatality events, placing all remains in refrigerated storage may not be an option because of the massive number of deceased over several months, limited maintenance personnel to repair broken units, and the competition between governments in the acquisition of scarce refrigeration units.

With proper preparation, ice rinks and similar facilities are other options for alternative temporary storage. When using ice to lower the temperature of remains, it is important to ensure the remains are kept above freezing temperatures and not in direct contact with the ice to avoid disfiguring skin features used to identify the deceased. Pallets will be used to keep human remains from coming in contact with the ice. Human remains will not be stacked. Social customs and perceptions, however, make it likely that once a community uses a facility to store human remains, it will no longer use the facility for its original purpose.

Using dry ice to build a low wall around groups of remains and covering them with a plastic sheet may be suitable for short-term storage. This option requires a considerable amount of dry ice (approximately 22 pounds per remains, per day) which can be expensive and difficult to obtain during this scenario. Dry ice also requires proper handling to avoid burns and produces carbon dioxide gas when it melts. Areas used for this option would require adequate ventilation.

F6.4.3 Delayed, Limited or Lack of Positive Identification of the Deceased

Although identifying remains during a pandemic influenza event may not initially be problematic, a subset of those who die may not be easily identified because of absence of legal next of kin (e.g., indigent population, foreign nationals). Without confirmed identification, the Coroner's ability to release remains for final disposition will be delayed. If adequate refrigeration facilities for preserving the amount of remains are not readily available, rapid decomposition may make visual identification almost impossible.

Monterey County should identify and train persons who could be appointed by the Vital Records Local Registrar as subregistrars at morgue(s) and the hospital to enhance the accuracy of, and expedite the process for, registering deaths and procuring burial permits. Decedents may not be released from a morgue without a death certificate and burial permit.

F6.4.4 Delayed, Limited or No Examination/Autopsy

Most pandemic influenza-related deaths will not require an autopsy because autopsies are not required for the confirmation of influenza as a cause of death. However, for the purposes of public health surveillance, post-mortem specimens could be collected (e.g.,

respiratory tract specimens, lung tissue for culture or direct antigen testing). If a physician requires that an autopsy be performed or specimen collection is needed, permission from the next of kin will be required.

When a death is reportable to the Coroner, the usual protocols will be followed as outlined in California law. The deceased will be screened for suspicious deaths and/or death that is readily apparent to be non-pandemic influenza-related. Otherwise, a limited or no examination/autopsy approach will be implemented by generally ascertaining if all apparent evidence indicates death caused by the pandemic influenza. The Coroner should apply professional discretion to determine which human remains require autopsies.

One qualified person should be designated to certify pandemic influenza-related deaths en masse.

F6.4.5 Delayed or Absent Funeral Service or Memorial

Social distancing measures are mandated by the health officer for all severe influenza pandemics. Because of the implementation of these measures, traditional funeral services may need to be delayed, causing decedents to be held at holding facilities for extended periods of time. Funeral directors should consider alternative services, such as video conferences, to allow relatives of the deceased to view the funeral and mourn at a non-public venue. Otherwise, traditional funeral services could be delayed weeks, if not months.

F6.4.6 Multiple-Depth Graves

Severe pandemic influenza-related fatalities may limit available cemetery space. In an effort to ensure that families are buried together and limit the financial impact on the surviving family members, individuals may arrange to be buried in the same grave as a spouse or other family member. Persons who are not related may also be buried in the same multiple-depth grave if all parties provide written authorization. However, multiple-depth graves may limit disinterment rights.

F6.4.7 Temporary Interment

Refrigerated storage is considered a viable option for single-site mass fatality events but not in a severe pandemic influenza event. Procuring the necessary number of refrigerated trucks needed to accommodate the volume of decedents during a severe pandemic influenza is highly unlikely. Temporary interment is the preferred option of storage only when all other options have been exhausted, which is expected in the most severe pandemics. Temporarily interred human remains are not commingled.

F6.4.8 Cremation

Cremation is a method of preparing decedents for final disposition. Cremations have fewer resource requirements than burials and, where acceptable, may be an expedient

and efficient way of managing large numbers of human remains during a pandemic influenza event.

State law provides that only one decedent can be being cremated at a time. Cremation is an irreversible process and eliminates any ability to determine exact cause of death. Written authorization from the next of kin must be signed before a cremation can proceed. Embalming is not required. Caskets are also not required, but a rigid, leak proof, combustible container is required for the dignified handling of the decedent. Cremation is the primary option for decontaminating human remains.

The cremation process takes approximately 2 to 2½ hours at between 1400 and 1800 degrees Fahrenheit for each decedent. The process is time-consuming, but it requires fewer resources than a funeral home uses (e.g., embalming is not required). Monterey County should determine the daily capacity for crematoriums within its jurisdiction. Air curtain incinerators and plasma incinerators offer expedited cremations.

Most crematoriums have legal restrictions on hours of operation. The Coroner should work with locally-elected officials and the State to establish the necessary waivers to extend the crematoriums' hours of operation to increase decedent throughput. Some religions prefer cremations; some do not recommend the practice, and most religions permit individuals to make the choice.

F6.4.9 Mass Cremation

Currently, California law mandates that all cremations must be performed individually. A multiple cremation is defined as multiple remains cremated in one session, and the remains cannot be segregated after the cremation. Multiple cremations can be authorized in writing if the cremation chamber is capable of processing multiple cremations. Only a few crematoriums in California have this capability.

F6.5 Virtual Family Assistance Centers

Because of the social distancing measures established by the Health Officer, the Coroner is responsible for the provision of Family Assistance Services that will be necessary via vFACs, which should be established to provide the public with information through media. Media outlets may include newspapers (both hard copy and web-based), local television news stations, local radio stations, emergency hotlines or call centers, websites such as United Way's 211, and various other emergency management, county, and/or city public websites. Families need to understand the principles behind decisions being deployed by local and State authorities, particularly decisions related to temporary interment and the option to disinter.

The media outlets will ensure that the public receives timely and accurate updates regarding the fatality management process, pronouncing death, certifying death, how to access the officials about deaths that occur at home, private citizens preparing/

transporting loved ones who die at home, and implementation of select Altered Standards of Death Care, if any.

Examples of State and Federal information outlets are the CDC, the California Department of Consumer Affairs, Cemetery and Funeral Bureau, and the California Department of Public Health. However, State and Federal information should be incorporated into the regional and local outlets, which will be the sources the public uses and relies on most. All sources should be consistent and incorporate new information as it becomes available in order to minimize confusion.

Throughout The California Mass Fatality Management Guide: A Supplement to the State of California Coroners' Mutual Aid Plan (2007) there are specific functions outlined that should be provided through family assistance services. As noted, the vFACs should include many or all of the following services:

- General information
 - Financial assistance – resources, application/referral process
 - Social Security – access to death and disability benefits
 - Legal assistance – insurance benefits, death-related concerns
 - Health and safety issues regarding food, water, and medications
- Individualized information and support
 - Burial site
 - Death certificate information
 - Information regarding keeping the dead at home when the potential exists for a prolonged period before the body is removed

F7 Long-term Recovery

The scenario pandemic influenza event will last for more than 9 months and will require addressing long-term recovery needs. Because of the protracted duration and extended transition to long-term recovery, specific time-based actions are not necessary.

Long-term recovery efforts will include:

- Return temporary and permanent facilities used to process human remains to pre-mass fatality response operations condition
- Provide critical incident stress management for staff
- Continue vFACs
- With law enforcement, support the process to continue to identify human remains and issue correction forms
- Continue identification of indigent and foreign national populations

- If the human remains are placed into temporary interment and the next of kin prefers to disinter the decedent, manage the disinterment of the remains in preparation for final disposition
- Develop and construct memorials/monuments
- Prepare for additional pandemic influenza waves by restocking
- Identify resources that should be replenished during long-term recovery, specifically concerning fatality management operations and death care industry-related supplies in preparation for other pandemic influenza waves
- Coordinate with other counties, states, or countries for the repatriation of the deceased to their area of permanent residence
- Maintain accurate counts of all pandemic influenza-related deaths and ensure data are reported to the Coroner
- Reconcile death certifications with insurance companies
- Determine when funeral homes and mortuaries can resume normal operations
- Return personal effects to next of kin
- Maintain records for financial purposes and for potential reimbursement by the Federal Government
- Conduct an after-action review of operations and make necessary alterations

F8 Response Timeline

Table F-2 provides a response timeline of the tasks associated with a pandemic influenza starting with the event (E), defined in the scenario as the beginning of the CDC Acceleration Interval, until 60 days after, as described in **Section F2.2**. Operational priorities are not included in the timeline.

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Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A1. OBJECTIVE Plan and coordinate mass fatality management operations with appropriate agencies	1	E to E+72h	Conduct meetings to determine strategy for handling the surge in influenza-caused fatalities	Coroner, Hospitals, Public Health	Other Health-care Facilities, death care industry	Local volunteer agencies will play a critical role in mass fatality response operations (e.g., FBOs, CBOs, MRCs)
	2	E to E+72h	Review plans for mass fatality management operations	Coroner, Hospitals, Public Health	SNFs, LTCFs	Local governments will discuss alternate workforce solutions (e.g., retired individuals, students). Volunteers receive just-in-time training.
	3	E to E+72h	Develop personnel shift and resource staging plans to maximize the use of limited resources	Coroner	—	—
	4	E to E+72h	Coordinate with the death care industry (funeral homes, crematoriums, and cemeteries) regarding the anticipated surge in fatalities	Coroner	CDFA	Local governments will attempt to identify sources of supplementary workers. Funeral homes will handle 6 months' work in a 6- to 8-week period. Local service clubs or churches may be able to take on tasks such as digging graves under supervision. Crematoriums will examine their capability to expand operations, which might include running on a 24-hour basis. One body can be processed every 4 hours.
	5	E to E+72h	Coordinate with religious and cultural leaders regarding the anticipated surge in fatalities	Coroner	FBOs	Information should be provided to FBOs regarding what to expect Religious and ethnic leaders should be encouraged to educate and solicit the support of their group to help expedite final disposition for the deceased; accelerate legal processes (e.g., life insurance); and help promote community recovery.
	6	E to E+72h	Plan for the removal of remains from hospitals, other care facilities, and pre-designated fatality collection sites	Coroner	Hospitals, Public Health SNFs, LTCFs	Local governments will need to identify alternate suppliers of equipment that could be used as stretchers for the movement of human remains
	7	E to E+72h	Plan for the possibility of implementing select Altered Standards of Death Care	Coroner, Public Health, Hospitals, Board of Supervisors, County Counsel	death care industry, SNFs, LTCFs, death care industry	See Appendix G for more details on Altered Standards of Death Care.
A2. OBJECTIVE Obtain situational awareness on the impacts of the pandemic influenza	8	E to E+72h	Gather data on the pandemic influenza	Public Health	Coroner, Hospitals, SNFs, LTCFs	Critical pieces of information to provide situational awareness for the pandemic influenza are: <ul style="list-style-type: none"> • Number of deaths • Number ill and their severity • Availability of medication and other treatment resources • Location of remains • Current capability of hospitals to store human remains • Death care industry's capabilities to conduct the final disposition of each fatality
A3. OBJECTIVE Identify mass fatality management capabilities, resource requirements and needs	9	E to E+72h	Evaluate current capabilities	Coroner, Hospitals, death care industry	—	Monterey County will evaluate morgue capacity, hospital morgue capacity, resource availability, and staff availability in conjunction with OES
	10	E to E+72h	Determine resource needs and requirements and verify their availability from local sources	Coroner	Operational Area EOC	Local governments will contact casket manufacturers to discuss expediting shipments. There will be a great need for backhoes and coffin lowering machinery.
	11	E to E+72h	Determine fatality management facilities' security capabilities, needs, and requirements	Local law enforcement	Coroner, Operational Area EOC	Monterey County will use information to initiate the identification of appropriate temporary interment sites.
	12	E to E+72h	Determine current transportation capabilities, needs, and requirements	Coroner, CDFA, death care industry	Operational Area EOCs, OES, Cal EMA, FEMA	The Coroner's Office may consider using volunteer drivers for vehicles that do not require a special license for operation.
	13	E to E+72h	Determine human resource needs and required qualifications for transporting human remains	Coroner	private transport companies, CFDA, death care industry	Ensure drivers have necessary license requirements.

Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A4. OBJECTIVE Submit initial mass fatality management resource requests	14	E to E+72h	Request initial mass fatality management resources through the REOC Logistics Section.	Operational Area EOC, Logistics Sections	Coroner, Cal EMA, FEMA	While it is assumed that mutual aid resources will be unavailable, the State and Federal governments have caches of certain supplies that may be available upon request. Examples of resources that may be available are: <ul style="list-style-type: none">• Vaccine• Body bags• PPE• Vehicles
	15	E to E+72h	Event observed: Cal EMA hosts conference call with Operational Area Coroner/Medical Examiner Mutual Aid Coordinators and the Region II Coroner/Medical Examiner Mutual Aid Coordinator to discuss the need for State and Federal resources	Cal EMA	Operational Area Coroner/Medical Examiner Mutual Aid Coordinators	See RECP, Law Enforcement Subsidiary Plan for a description of the Coroner/Medical Examiner Mutual Aid System
	16	E to E+72h	Event observed: Cal EMA coordinates delivery of requested State and Federal mass fatality resources	Cal EMA	FEMA, HHS, Operational Area EOC	In State cached resources will be delivered to Operational Areas according to the State determined delivery schedule. Federal resources will be delivered first to the State and then delivered by the State to requesting Operational Areas
	17	E to E+72h	Event observed: State and Federal resources arrive	Cal EMA	Operational Area EOC	—
A5. OBJECTIVE Identify and integrate additional staff to augment recovery, transportation, morgue, hospital, and vital records operations	18	E to E+72h	Identify and coordinate with sources of additional staff to support mass fatality operations	Coroner, Hospitals	Operational Area EOC	Potential sources for additional staff to support mass fatality operations are: <ul style="list-style-type: none">• LHD• Local law enforcement• MRC
A6. OBJECTIVE Coordinate and initiate dissemination of public information through the JIS	19	E to E+72h	Coordinate and disseminate public information through the JIS	Operational Area JIC, SOC/JFO JIC	County and city governments, State and Federal agencies, special districts, NGOs, CBOs	Examples of information the Coroners should provide to the public are: <ul style="list-style-type: none">• vFAC Contact information• Location(s) of FACs• Type of services the vFACs and/or FACs provide• Number of fatalities• Location(s) of public fatality collection sites• How to access an authorized person to pronounce and certify death
	20	E to E+72h	Coordinate with and disseminate public information through OA JICs	Coroner designated Public Information Officer	Operational Area PIO/JIC Section	—
	21	E to E+72h	Initiate communication and coordination with hospitals to determine reporting requirements on the total number of influenza-caused fatalities	LHD	Coroner	—
A7. OBJECTIVE Establish system to collect and recover human remains	22	E to E+72h	Establish fatality collection points	Coroner, Hospitals	Public Health	Level of transport capability will impact number of fatality collection points
	23	E to E+72h	Establish fatality recovery teams to expedite human remains recovery from hospitals, private residences, and private businesses	Coroner	Local law enforcement	Local governments may consider deputizing those individuals whose sole responsibility is to search for the dead. Local governments and hospitals may establish a 24/7 pickup service with set pick up times. Local law enforcement will accompany US&R teams involved.
	24	E to E+72h	Deploy teams to recover human remains from: private residences, private businesses, hospitals, SNFs, LTCFs, and ACSs	Coroner, Hospitals	SNFs, LTCFs, ACSs	Local recovery teams will provide a body wrapping service in conjunction with pronouncement and transportation to morgue. Local governments should consider developing a rotating 6 month inventory of body bags (need to take into consideration shelf life limitations) This may include the need to train and expand the role of current staff to perform this task.
	25	E to E+72h	Begin receiving human remains at fatality collection points	Coroner	—	—

Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
A7 (cont.)	26	E to E+72h	Document location(s) of recovered human remains	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs	If death occurs in the home, designated person must be contacted. The local fatality recovery team must understand the distinction between pronouncing death and certifying death. This may not be the same person legally. Local governments may "collect" decedents and perform death certification en masse to improve efficiency.
	27	E to E+72h	Document all human remains dropped off at fatality collection points	Coroner	Hospitals, SNFs, LTCFs, ACSs	—
A8. OBJECTIVE Establish system to transport and temporarily store human remains	28	E to E+72h	Analyze transportation resource needs and capabilities	Coroner	Operational Area EOC, Cal EMA, FEMA, CDFR, death care industry	Examples of death care industry resource shortage items include: <ul style="list-style-type: none"> • Caskets, urns, vaults • Embalming supplies and equipment • Headstone or other grave markers
	29	E to E+72h	Acquire refrigerated trucks that can be used to store and transport remains	Private transport companies, CFDA, death care industry	OES	Shelves can be used to increase storage capacity. Human remains should not be stacked. Refrigerated trucks can usually hold between 25-30 remains.
	30	E to E+72h	Transfer human remains from the fatality collection points to temporary storage	Coroner, Local law enforcement	Hospitals SNFs, LTCFs, ACSs	Temporary morgues should be maintained at 38-44° F. Local governments may need to store human remains for the duration of the pandemic wave (6-8 weeks). Refrigerated trucks, cold storage lockers, refrigerated warehouses and temporary interment will be considered for temporary storage. Cal EMA should coordinate with the Federal Aviation Administration to establish a "No Fly Zone" over morgues during pandemic influenza mass fatality response operations.
	31	E to E+72h	Temporarily store human remains	Coroner	Death care industry, hospitals	—
A9. OBJECTIVE Expand morgue capacity and conduct morgue operations	32	E to E+72h	Expand County morgue to full-surge capacity and establish temporary morgue(s)	Coroner	Operational Area EOC, CFDA, ARC, CLECA, LHD, CDSS	Autopsies are not required for confirmation of influenza as cause of death; therefore, most cases in a pandemic influenza will not require autopsy.
	33	E to E+72h	Deploy security personnel to fatality collection points, morgue sites, and storage facilities	Local law enforcement, CHP	Operational Area EOC, Cal EMA	—
	34	E to E+72h	Begin processing human remains	Coroner	—	Embalming is not required and is not a direct responsibility of the Coroner/ Medical Examiner.
	35	E to E+72h	Coordinate with Vital Records to expedite the issuance of death certificates and permits for final disposition	DMORTs, Coroner, Vital Records	CDPH	Vital Records is typically part of the Public Health Division. CDPH to provide assistance to local Vital Records to expedite the processing of death certificates
	36	E to E+72h	Complete death certificates when positive identification and cause and manner of death have been determined	Public Health	Coroner, Hospitals	Coroner must also complete portion of the death certificate after identify of the deceased has been confirmed.
A10. OBJECTIVE Initiate family assistance services to include the establishment and operation of vFACs call centers	37	E to E+72h	Activate call centers to facilitate access to vFAC services and to provide much needed information to the Coroner	Coroner	LHDs, ARC, Salvation Army (and other NGOs, FBOs), CFDA	Cal EMA may assist. To include core management, operations and administrative teams. Services will be provided through a call center or over the internet. Core services include registration; Coroner Services (family briefings, ante mortem data collection, and death notification); mental health services; spiritual care services; and others to meet situational requirements See Section F6.5 for additional details on vFACs
B1. OBJECTIVE Re-assess mass fatality management capabilities, resource requirements and needs	38	E+72h to E+14d	Determine new resource needs and requirements and verify their availability from local sources	Coroner	Operational Area EOC, Public Health	Need to coordinate with Hospitals and death care industry
	39	E+72h to E+14d	Analyze availability of supplies and assess the potential need to stockpile them	Coroner	Operational Area EOC,	Need to coordinate with Hospitals and death care industry
	40	E+3 d to E+14d	Receive and forward resource requests to appropriate agency	Operational Area EOC	Coroner, FEMA	—

Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
	41	E+3 d to E+14d	Expand mass fatality response operations by integrating local resources	Coroner	Operational Area EOC, Public Health	—
B2. OBJECTIVE Continue collection and recovery of human remains	42	E+72h to E+14d	Continue to send teams out to recover human remains from: hospitals, SNFs, LTCFs, and ACSs	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs	—
	43	E+72h to E+14d	Continue to receive human remains at fatality collection points	Coroner	—	—
	44	E+72h to E+14d	Continue to document location(s) where human remains are recovered	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs	—
	45	E+72h to E+14d	Continue to document human remains dropped off at fatality collection points	Coroner	—	—
B3. OBJECTIVE Review, select, and implement appropriate Altered Standards of Death Care in coordination with all San Francisco Bay Area counties and the State of California	46	E+72h to E+14d	Request waivers of selective regulatory codes/statutes pertaining to day-to-day Coroner/Medical Examiner, hospital, and death care industry operations to assist with timely final disposition of remains	Operational Area EOC	Cal EMA, Governor's Office	—
	47	E+72h to E+14d	Event observed: Cal EMA hosts conference call to discuss consistently implementing Altered Standards of Death Care across the region	Cal EMA	Coroner	Public health and safety drives the need to consider select Altered Standards of Death Care
B4. OBJECTIVE Coordinate with Local Health Departments (LHDs) to communicate fatality numbers and trends to county officials, Coroners/Medical Examiners, emergency managers, hospitals, and vital records.	48	E+72h to E+14d	Establish system of reporting among county and city officials, emergency managers, Coroners/Medical Examiners, hospitals, SNFs, LTCFs, and Vital Records.	Operational Area EOC	Coroner, Public Health	—
B5. OBJECTIVE Continue to operate morgues at full capacity	49	E+72h to E+14d	Establish system for the mass issuance of death certificates for influenza-caused deaths.	Public Health	Coroner, Hospitals	—
	50	E to E+72h	Continue to process human remains	Coroner	—	—
	51	E to E+72h	Continue to coordinate with Vital Records to expedite the issuance of death certificates and permits for final disposition	Coroner, Vital Records	CDPH, Public Health	—
	52	E to E+72h	Continue to complete death certificates when positive identification and cause and manner of death have been determined	Public Health	Coroner, CDPH	Coroner must also complete portion of the death certificate after identify of the deceased has been confirmed.
B6. OBJECTIVE Continue coordination and dissemination of public information through the JIS and vFACs	53	E+72h to E+14d	Establish public information dissemination strategies	Coroner	Operational Area JIC, State and Federal JIS	—
	54	E+72h to E+14d	Coordinate and disseminate public information through the JIS and the vFAC	Coroner	Local governments, State and Federal agencies, special districts, NGOs, CBOs, FAC	Volunteers must be screened and directed. Example support groups include ARC, Salvation Army, MRC, local clergy, mental health professionals, and veterans support groups.
B7. OBJECTIVE Continue to provide virtual family assistance services	55	E+72h to E+14d	Continue to operate vFAC call centers and expand services	Coroner	Public Health, ARC, Salvation Army (and other NGOs, FBOs), CFDA	Cal EMA may assist. To include core management, operations and administrative teams. Services will be provided through a call center or over the web. Core services include registration; Coroner/Medical Examiner Services (family briefings, ante mortem data collection, and death notification); mental health services; spiritual care services; and others to meet situational requirements See Section F6.5 for additional details on vFACs

Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
	56	E+72h to E+14d	Identify fully processed human remains and personal effects ready for release to next of kin	Coroner	—	Prompt information should be provided to next of kin/family members of deceased on what human remains and personal effects will be released and the time period when they will be released. Provision of advance explanation on anticipated delays in releasing remains and personal effects is recommended.
B7 (cont.)	57	E+72h to E+14d	Establish standardized system of communications/information management for collecting, managing, controlling, and sharing of information/data through the vFAC.	vFAC Planning Sections, Coroner	Operational Area JIC, death care industry, CFDA	—
	58	E+72h to E+14d	Establish temporary repository for Public Records/Decedent Information	Coroner	Vital Records	Monterey County will continue to use the EDRS supported by CDPH
	59	E+72h to E+14d	Establish victim records database to store antemortem data	Coroner	Cal EMA	Data to include medical and dental identification information
	60	E+72h to E+14d	Cross-reference morgue data with local, State, Federal, and International missing persons databases to assist in the identification of remains (when applicable)	Coroner	vFAC, DOJ	CA DOJ Missing and Unidentified Persons Unit (MUPS) Can assist through the following mechanism: <ul style="list-style-type: none"> • Missing Persons DNA database • Missing Persons Bulletins
B8. OBJECTIVE Implement stress management and crisis intervention strategies	61	E+72h to E+14d	Request critical incident stress management teams to support fatality management response personnel	Public Health	CLECA	Local governments will contact CISM teams (e.g., Bay Area Critical Incident Stress Debriefing Team, and the Oakland Fire CISM Team)
	62	E+72h to E+14d	Request deployment of critical incident stress management teams to hospitals, morgues, and the vFAC call center	Public Health	CLECA	—
C1. OBJECTIVE Plan for the second wave of the pandemic influenza.	63	E+14d to E+60d	Conduct meetings to determine strategy for handling the second wave of influenza-caused fatalities	Coroner	Public Health, Hospitals, death care industry	—
	64	E+14d to E+60d	Review first wave mass fatality management operations and make necessary adjustments	Coroner	Public Health, Hospitals, death care industry	—
	65	E+14d to E+60d	Develop personnel shift and resource staging plans to maximize the use of limited resources for the second wave	Coroner	—	—
	66	E+14d to E+60d	Coordinate with the death care industry (funeral homes, crematoriums, and cemeteries) in anticipation of the next surge in fatalities	Coroner	CDFA	—
	67	E+14d to E+60d	Coordinate with religious and cultural leaders regarding any adjustments in strategy for the second wave of anticipated fatalities	Coroner	FBOs	—
	68	E+14d to E+60d	Coordinate any strategy changes with hospitals, other care facilities, and pre-designated fatality collection sites	Coroner	Hospitals, Public Health, SNFs, LTCFs	—
	69	E+14d to E+60d	Plan for the possibility of implementing or deactivating selected Altered Standards of Death Care	Coroner, Hospital, Public Health	Board of Supervisors, County Counsel, SNFs, LTCFs, death care industry	—
C2. OBJECTIVE Replenish local resources to support mass fatality response operations in anticipation of the second wave of fatalities	70	E+14d to E+60d	Evaluate current capabilities and reallocate resources as necessary	Coroner, Hospitals, death care industry	—	Coroner, and hospitals should evaluate morgue capacity, hospital morgue capacity, resource availability, and staff availability in consultation with OES
	71	E+14d to E+60d	Determine new resource needs and requirements and verify their availability from local sources	Coroner, Hospitals	Operational Area EOC	—
C3. OBJECTIVE Continue to collect and recover human remains	72	E+14d to E+60d	Continue to send teams out to recover human remains from: hospitals, SNFs, LTCFs, and ACSs	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs	—
	73	E+14d to E+60d	Continue to receive human remains at fatality collection points	Coroner, local law enforcement	Hospitals	—

Table F-2. Response tasks timeline for mass fatality operations in a pandemic influenza.

Objective	Task	Time Frame	Operations	Coordinating Entity	Supporting Entity	Details and Comments
	74	E+14d to E+60d	Continue to document location(s) where human remains are recovered	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs	—
	75	E+14d to E+60d	Continue to document human remains dropped off at fatality collection points	Coroner, local law enforcement	Hospitals, SNFs, LTCFs, ACSs _	—
C4. OBJECTIVE Store, release, temporarily inter or facilitate the final disposition of human remains	76	E+14d to E+60d	Transport decontaminated remains to main Morgue	Coroner	CFDA	—
	77	E+14d to E+60d	Continue to process human remains	Coroner	Hospitals	—
	78	E+14d to E+60d	Decide to store, temporarily inter, and/or release human remains	Coroner, Public Health	Cal EMA, CFDA	Local governments use global positioning system (GPS) to document all individual remains locations.
C5. OBJECTIVE Provide stress management and crisis intervention services for mass fatality management personnel and friends and family of the deceased	79	E+14d to E+60d	Continue to provide critical incident stress management teams to support fatality management response personnel	Public Health	CLECA	—
	80	E+14d to E+60d	Continue to provide critical incident stress management teams at hospitals, morgues, and vFAC call centers	Public Health	CLECA	—
C6. OBJECTIVE Reconstitute morgues in anticipation for the second wave of fatalities	81	E+14d to E+60d	Prepare morgues in anticipation of the second wave of fatalities	Coroner	Operational Area EOC	—
	82	E+14d to E+60d	Store, release, and/or temporarily inter all first wave human remains in preparation for the anticipated second surge of fatalities	Coroner	CDFA	Local governments may erect a monument at temporary interment site(s) after the pandemic is over.

— = Not applicable
 ACS = Alternate Care Site
 AMR = American Medical Response
 ARC = American Red Cross
 Cal EMA = California Emergency Management Agency
 CBO = community-based organization
 CDPH = California Department of Public Health
 CDSS = California Department of Social Services
 CFDA = California Funeral Directors Association
 CLECA = California Law Enforcement Chaplains Association
 d = days
 DMAT = Disaster Medical Assistance Team
 DOC = Department Operation Center

DOJ = California Department of Justice
 DOT = Department of Transportation
 EDRS = California Electronic Death Registration System
 EHS = Employment and Human Services
 EOC = Emergency Operations Center
 EPA = Environmental Protection Agency
 FAC = Family Assistance Center
 FBO = faith-based organization
 FEMA = Federal Emergency Management Agency
 h = hours
 IR = Incident Response
 JFO = Joint Field Office

JIC = Joint Information Center
 JIS = Joint Information System
 LHD = Local Health Department
 LTCF = Long term care facility
 MRC = Medical Reserve Corp
 NGO = nongovernmental organization
 OES = Monterey Office of Emergency Services
 PPE = Personal Protective Equipment
 REOC = Regional Emergency Operations Center
 SEMS = Standardized Emergency Management System
 SNF = Skilled nursing facility
 SOC = State Operations Center

Appendix G:
Normal versus Altered Standards of Death Care

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Table of Contents

G1	Introduction	G-1
G2	Delayed Recovery of the Deceased	G-2
G3	Preparation of the Body by Nonprofessionals or Family	G-3
G4	Nonrefrigerated Storage of Human Remains	G-3
G5	Delayed or Limited Positive Identification of the Deceased.....	G-4
G6	Delayed or Limited Examination or Autopsy	G-4
G7	Delayed or No Memorial or Funeral Service.....	G-4
G8	Virtual or Limited Family Assistance Support	G-4
G9	Involuntary Mass Cremation	G-5
G10	Temporary Interment	G-5

List of Tables

Table G-1	Normal Standards of Death Care versus the Altered Standards of Death Care that may be required after a catastrophic earthquake or catastrophic CBRNE incident.....	G-2
Table G-2	Normal Standards of Death Care versus the Altered Standards of Death Care that may be required after a pandemic influenza.....	G-2

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Appendix G: Normal versus Altered Standards of Death Care

G1 Introduction

The mass fatalities resulting from catastrophic events such as earthquakes; chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incidents; and pandemic influenza may make it extremely difficult to provide Normal Standards of Death Care effectively and in a timely manner. Altered Standards of Death Care may need to be implemented, based on consideration of the following factors:

- Need to manage a high number of fatalities
- Inability to effectively respond because of overwhelmed response capabilities
- Inability to surge the capabilities because of limited access to resources for extended periods

Implementing Altered Standards of Death Care is likely to be controversial. Communities should be engaged in pre-event planning and be made aware of the potential for the need to implement Altered Standards of Death Care after a catastrophic event. Effective pre- and post-event communication with local communities through religious, cultural, and other community leaders about Altered Standards of Death Care is important. Post-event, Family Assistance Centers are likely to be a key forum for community engagement and communications about Altered Standards of Death Care. Community leaders can be asked to facilitate such communications.

Establishing a regional governmental consensus on the need for implementing selected Altered Standards of Death Care uniformly in the region is critical. Uneven implementation is likely to compound the controversy. The regional decision-making process should be based on pre-event planning and acceptance of regional-level Memoranda of Understanding among the 12 Bay Area Operational Areas and their communities. The decision-making process is likely to need to include consideration of the following assumptions about response to the event:

1. Local and State officials seek a waiver of selective regulatory codes/statutes pertaining to day-to-day Sheriff-Coroner operations to allow for effective and timely mass fatality management.
2. The Governor issues, amends, and rescinds Executive Orders, proclamations, or statutes to deal with the final disposition of human remains.
3. The State may establish a standard method of final disposition by issuing an Executive Order or by other legal means.

The Altered Standards of Death Care that may need to be implemented after a catastrophic earthquake or catastrophic CBRNE incident are listed in **Table G-1** and

after a pandemic influenza in **Table G-2**. Altered standards are discussed in the remainder of this appendix.

Table G-1. Normal Standards of Death Care versus the Altered Standards of Death Care that may be required after a catastrophic earthquake or catastrophic CBRNE incident.

Normal Standard of Death Care	Altered Standard of Death Care
Refrigerated storage of human remains	Nonrefrigerated storage of human remains
Investigation and positive identification	Delayed or limited positive identification of the deceased
Investigation for cause and manner of death	Delayed or limited examinations or autopsies

Table G-2. Normal Standards of Death Care versus the Altered Standards of Death Care that may be required after a pandemic influenza.

Normal Standard of Death Care	Altered Standard of Death Care
Immediate recovery of the deceased	Delayed recovery of the deceased
Preparation of the body by professionals	Preparation of the body by nonprofessionals or family
Refrigerated storage of human remains	Nonrefrigerated storage of human remains or temporary interment
Full examination or autopsy	Delayed and/or limited examinations or autopsies
Timely memorial or funeral service	Delayed or absent memorial or funeral service
Family assistance support and services	Virtual or limited family assistance support
Voluntary individual cremation	Involuntary mass cremation

G2 Delayed Recovery of the Deceased

Recovery of the deceased may be delayed because of the high number of fatalities that occur in a relatively short period, over a widespread area geographically, and the limited Sheriff-Coroner resources to recover the deceased. The urgency to recover the deceased may be slightly mitigated by the fact that most of the deceased are not visible in public spaces. Most of the deceased are in hospitals, private residences, businesses, nursing homes, and alternative care sites.

The local Sheriff-Coroner needs to issue directives to hospitals, businesses, nursing homes, alternative care facilities, and the public to implement measures to accommodate delays in the recovery of the deceased. Hospitals are required to surge cold-storage capacities to store the deceased for extended periods. The public is likely to need to transport their deceased to pre-designated fatality collection points, which

results in delays in the remains recovery process. The Sheriff-Coroner needs to coordinate with the hospitals in arranging for recovery of remains from hospitals.

G3 Preparation of the Body by Nonprofessionals or Family

Between 50 and 75 percent of influenza-related deaths occur outside a hospital or medical treatment facility, with a significant number in private residences. Given the likely delay in recovering the deceased, the large number of deceased, and the limited professional resources to prepare the bodies for processing, nonprofessionals and family members are likely to be required to do so. The Sheriff-Coroner needs to issue directives to the public on the procedures to prepare bodies for processing. Appropriate legal waivers need to be obtained to implement the measures.

G4 Nonrefrigerated Storage of Human Remains

Ideally, human remains are cold-stored between pre- and post-morgue examination and until final disposition. Refrigerating human remains can prevent or significantly slow down tissue degradation, affording additional time for time-critical human remains processing tasks. Temporarily refrigerated storage options include refrigerated trucks, railroad cars, and tents. Additionally, internally or externally air-conditioned small buildings or rooms that can maintain a temperature of 37 degrees Fahrenheit or less may also be considered for cold storage.

However, needed cold-storage units and capacities may not be available in a timely manner. Local county morgue cold-storage capacities are inadequate for the high number of human remains. The supply of refrigerated trucks does not meet the demand, making it difficult to ensure proper storage/transportation for the deceased. Additionally, in the earthquake scenario, loss of power or the lack of generators/fuel affects the ability to cold-store human remains. Also, pre-designated cold-storage facilities may be structurally compromised in the earthquake scenario, further affecting cold-storage capacities.

Accordingly, nonrefrigerated storage of human remains may be necessary where and when cold-storage options are unavailable. Nonrefrigerated storage of human remains for long periods results in added challenges to processing because the remains begin to decompose. When high numbers of human remains cannot be transported from the incident site in a timely manner and storage sites and/or storage capacity are inadequate, the option to bag and temporarily inter human remains can be considered until arrangements for requisite transportation and storage needs are made. Also, in certain situations, embalming may be considered if and when embalming resources are available. Embalmed remains can be stored for up to 3 weeks without refrigeration, although they are preferably stored in a cool place.

G5 Delayed or Limited Positive Identification of the Deceased

The availability of sufficient cold-storage capacities for human remains may allow for delays in conducting positive identification of the deceased. However, the lack of adequate cold-storage capacities for human remains and the need to process a high number of fatalities over a relatively short period with limited resources may compel the Sheriff-Coroner to conduct limited positive identification of the deceased. The likelihood of needing to process fragmented human remains in the catastrophic earthquake scenario adds to the overall remains identification burden, straining limited resources for the processing of remains.

G6 Delayed or Limited Examination or Autopsy

The large number of deceased is likely to result in delayed, limited, or no examinations/autopsies of the deceased to enable timely and effective mass fatality management. The availability of sufficient cold-storage capacities for human remains may allow for delays in conducting examination/autopsies of the deceased. However, the lack of adequate cold-storage capacities for human remains, and the need to process a large volume of the deceased within a relatively short period with limited equipment and personnel resources is likely to necessitate limited or no examinations/autopsies of the deceased.

The deceased need to be screened for suspicious deaths and/or deaths that are readily apparent as non-incident-related. After that, a limited or no-examination/autopsy approach could be implemented by generally ascertaining whether all apparent evidence indicates death caused by the incident. The Sheriff-Coroner accordingly needs to apply professional discretion to determine which human remains require full examinations/autopsies. Because this approach is a departure from standard protocols, appropriate legal waivers/authorizations need to be obtained to implement the respective measures.

G7 Delayed or No Memorial or Funeral Service

The pandemic influenza scenario requires public health departments to implement social distancing measures such as the suspension of mass gatherings for memorial/funeral rituals. Accordingly, memorial or funeral services have to either be delayed or not be held.

G8 Virtual or Limited Family Assistance Support

The pandemic influenza scenario requires public health departments to direct the implementation of social distancing measures such as the provision of family assistance services via virtual centers. The Sheriff-Coroner or their designee needs to develop virtual systems to provide family assistance services, which consist of pushing information out, rather than pulling people into a facility. The capability to provide

family assistance services via virtual centers is to be developed before the scenario event occurs.

G9 Involuntary Mass Cremation

The combined lack of cold-storage capacities for human remains and the inability of the Sheriff-Coroner to process the overwhelming number of human remains in a timely manner are likely to necessitate a standard final disposition solution to effectively manage the large number of deceased and minimize/avoid creating public health hazards. In such circumstances, the Governor is likely to issue, amend, or rescind Executive Orders, proclamations, or statutes to deal with the disposition of human remains, and the State may establish a standard method of final disposition by issuing an Executive Order or by other legal means. Involuntary mass cremation is typically the recommended final disposition option for pandemic influenza mass fatality scenarios and has to be conducted in accordance to Governor/State-issued directives.

G10 Temporary Interment

Temporary interment is a process in which the deceased are stored in individual plots at a large State-sponsored location until the response allows for the legal next of kin to disinter the deceased in preparation for final disposition. Temporary interments may or may not be temporary based on the next of kin's decision for final disposition after the emergency has subsided. The site should be managed by a combination of regular cemetery management staff and county resources reporting to the Sheriff-Coroner.

Temporary interment sites are limited to as few as possible. In the event of the need for temporary interment, complete identification of the remains is conducted. The exact location of each body buried is recorded on grid maps including dates and times, and each burial site is marked with identification numbers for orderly disinterment. The use of a global positioning system is to be used to identify the location of the deceased to allow for rapid excavation and burial as well as disinterment if requested by the next of kin after the event is over.

Selected cemetery sites meet the following criteria:

- Municipal nonsectarian cemetery or regulated by the California Department of Consumer Affairs, Cemetery and Funeral Bureau
- Capable of delivering services 7 days a week, 12 months a year
- Administrative staff support 24 hours per day
- Multiple layers of administrative and maintenance staff that can be accessed 24 hours a day
- Roadways, preferably paved or gravel, and entrances are wide enough to allow access for tractor trailers, refrigerator trailers, and excavators

- Not in public view and secured by a fence and security personnel
- Accurate survey of all cemetery grounds, developed and undeveloped
- Ability to survey additional burial spaces, record spaces, and complete burials quickly and accurately
- Acceptable communications systems in place including phones, fax machines, computers, and internet

Disinterment considerations include the following:

- Next of kin make choices about disposition of their loved one and incur the financial responsibility for services provided.
- Once the State or county restrains the next of kin's choice for final disposition, the State or county that is responsible for limiting freedom of choice incurs the financial responsibility for disinterment costs.
- If a decedent with a prepaid irrevocable trust is not disinterred, the county may claim the funds.