

# [JURISDICTION] CATASTROPHIC EARTHQUAKE DEBRIS REMOVAL PLAN



DEBRIS REMOVAL

[Insert  
Jurisdiction  
Logo]

## Workshop Manual

[Date]

*This Workshop Manual provides participants with background information and discussion items to be used during the workshop. This Workshop Manual is intended to be used together with [Jurisdiction] Catastrophic Earthquake Debris Removal Concept of Operations. All workshop participants may view the Workshop Manual.*

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## How to use this template

This document is a template to assist Emergency Management staff in facilitating a Discussion-Based Workshop (Workshop) to familiarize their jurisdiction's agencies with their local government Catastrophic Earthquake Debris Removal Plan (Debris Plan). To help achieve the objectives involved in a coordinated Emergency Operations Center (EOC) debris removal response, a Workshop can be used to validate and confirm the various roles and responsibilities defined in the Debris Plan. Notes taken during the Workshop can provide recommendations of updates to the plan and of future planning efforts.

To coordinate a Workshop, a jurisdiction should:

- Identify the stakeholders (agencies with a role or responsibility) in the Debris Plan
- For Debris Removal, invitations should be considered for representatives from:
  - Public Works
  - Environmental Health
  - Planning and development
  - Finance/Administration Section Staff
  - Hazardous material teams
- Establish a good date for the Workshop and coordinate stakeholder invitations
- Revise the Workshop Template materials with jurisdiction specific information
- Provide, at minimum, a Workshop facilitator and scribe (for discussion notes)

Upon completion of the Workshop, a jurisdiction should:

- Develop an After Action Report/Workshop Summary Report that captures observations made during the workshop and identifies recommendations for future action and follow up
  - When possible, identify a timeline for addressing each recommendation
- Revise the Debris Plan based upon the Workshop discussions and After Action Report/Summary Workshop Report
- Exercise the plan through a Tabletop Exercise, Functional Exercise or Full-Scale Exercise
- Adopt the Debris Plan per the jurisdiction's protocols

The **blue** font in this Workshop Manual Template represents either instructional language providing guidance to the Manual developer, or blanks for where tailored information should be entered. Words or phrases in black font target information that may be left unmodified; however, any sections, phrases or words in this template can be revised as needed by the jurisdiction.

# Administrative Handling Instructions

1. The title of this document is the *[Jurisdiction] Catastrophic Earthquake Debris Removal Plan Workshop Manual*.
2. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. **Note: This Instruction should be tailored to fit the requirements of the jurisdiction.**
3. For more information on this workshop, please use the following points of contact:

**[Agency Name]**  
[Name of Contact]  
[Title/Position]  
[Street Address]  
[City, CA, Zip Code]  
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## Acronyms

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Use this section to define any additional acronyms used in the manual. Below is a list of examples.

Cal OES .....	California Governor's Office of Emergency Services
Caltrans .....	California Department of Transportation
Debris Plan .....	Debris Removal Plan
EOC .....	Emergency Operations Center
FEMA .....	Federal Emergency Management Agency
HAZUS .....	Hazards U.S. (modeling software used to project damage from a given event)
<b>M</b> .....	moment magnitude
MCS .....	Mass Care and Sheltering Plan
MM .....	Modified Mercalli
NIBS .....	National Institute of Building Sciences
Plan .....	[Jurisdiction] Catastrophic Earthquake Debris Removal Plan
RCPGP .....	Regional Catastrophic Preparedness Grant Program
UASI .....	Urban Areas Security Initiative
Workshop .....	Discussion-Based Workshop

# Workshop Agenda – [Enter Date(s) of Workshop]

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Note: The times in the schedule below are included as an example. Start times and the length of discussion for each Module can be adjusted to fit the needs of the jurisdiction

## 8:30 a.m. Registration

## 9:00 a.m. Opening and Introductions

- Introductions
  - Housekeeping/Logistics
- Workshop Overview

## 9:15 a.m. Module 1: Overview of the [Jurisdiction] Catastrophic Earthquake Debris Removal Plan

- Plan Overview
- Scenario
- Debris Removal Assumptions

## 10:00 a.m. Module 2: Objectives 1 to 4

- Objective 1: Situational Awareness
- Objective 2: Debris Clearance
- Objective 3: Building and Infrastructure Assessments
- Objective 4: Staging, Processing, and Disposal of Debris

## 11:30 a.m. Working Lunch

Note: Having a “working lunch” is optional.

## 12:00 p.m. Module 3: Objectives 5 to 7

- Objective 5: Debris Removal
- Objective 6: Demolition of Unsafe Buildings
- Objective 7: Long-Term Recovery

## 1:00 p.m. Module 4: Review and Findings

- Reviewed Concepts
- Strengths

- Identified Gaps or Areas for Improvement
- Next Steps

## **1:30 p.m. Participant Feedback**



# Introduction

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## Workshop Purpose

The Bay Area Urban Areas Security Initiative (UASI) has implemented Regional Catastrophic Preparedness Grant Program (RCPGP) funds to develop plans in the following functional areas: Mass Fatality, Debris Removal, Mass Care and Sheltering, Mass Transportation/ Evacuation, Interim Housing, Volunteer Management, Donations Management and Logistics. For each functional area a Regional Plan has been developed, as well as Operational Area plans for the 12 Bay Area UASI region counties and local government plans for two core cities (jurisdictions include 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).

This workshop serves to conduct a systematic review of the [Jurisdiction] Catastrophic Earthquake Debris Removal Plan (Plan).

The workshop has three purposes:

1. To familiarize workshop participants with critical elements discussed in the Plan
2. To review and/or evaluate critical elements and concepts presented in the Plan
3. To identify gaps and areas for improvement for Plan revisions and future planning efforts

## Workshop Scope

**Note:** the following scope is here as an example and can be edited by the jurisdiction to reduce or expand the scope of the workshop.

The scope of this workshop includes an evaluation of the assumptions, roles and responsibilities, coordination and communication, and elements of the concept of operations described in the Plan. The workshop will be based on a response to the scenario event: a moment magnitude (**M**) 7.9 earthquake on the northern segment of the San Andreas fault. The workshop will not unfold chronologically; rather, it will examine key operational concepts and build from them to satisfy the Workshop Objectives.

## Workshop Objectives

The objectives of this workshop are to accomplish the following through participant inputs and discussion:

1. Evaluate the tasks identified for the development of situational awareness and priority operations.
2. Evaluate the tasks identified for debris clearance operations and discuss Public Assistance Program eligibility requirements for debris clearance operations.

3. Evaluate the tasks identified for the assessment of buildings and infrastructure and discuss Public Assistance Program eligibility requirements for the assessment of buildings and infrastructure.
4. Evaluate the tasks identified for the staging, processing, and disposal of debris and discuss Public Assistance Program eligibility requirements for the staging, processing, and disposal of debris.
5. Evaluate the tasks identified for debris removal operations and discuss Public Assistance Program eligibility requirements for debris removal operations.
6. Evaluate the tasks identified for the demolition of unsafe buildings and infrastructure and discuss Public Assistance Program eligibility requirements for the demolition of unsafe buildings and infrastructure.
7. Evaluate the tasks identified for long-term debris removal recovery operations and discuss Public Assistance Program funding requirements for long-term debris removal recovery operations.

## Workshop Process and Structure

This workshop will be an interactive, facilitated discussion, organized by modules, and aimed at evaluating key elements of the Plan. The workshop modules will not be presented chronologically to mirror the scenario event; rather, they will support objectives that were formulated to verify accuracy and consistency of the Plan and the operational elements necessary to carry out debris removal in the Jurisdiction.

[Insert a description of how the workshop will be facilitated. If you plan to use break-out sessions and/or facilitators for different tables, describe that here. Example text follows].

Participants will be grouped according to Emergency Operations Center (EOC) Sections (the section in which they are or would most likely be assigned to) and will engage in a facilitated discussion about critical elements of each plan. After these smaller group discussions, participants will engage in a moderated plenary discussion in which a spokesperson from each group will present a synopsis of the group's observations/discoveries based on the scenario.

OR

The workshop discussion will occur as a plenary session. A facilitator will guide the group in a discussion about critical elements of the plan.

[The structure of the workshop can be changed based on how the facilitation team determines it will be best to achieve the objectives for the workshop. The structure below is one example].

The workshop structure is designed to support a systematic review of the Plan by the participants, who are Debris Removal experts, as they analyze the Plan and provide recommended revisions.

- **Module 1:** Overview of the [Jurisdiction] Catastrophic Earthquake Debris Removal Plan
- **Module 2:** Objectives 1 to 4 (Situational Awareness, Debris Clearance, Building and Infrastructure Assessments, and Staging, Processing and Disposal of Debris)
- **Module 3:** Objectives 5 to 7 (Debris Removal, Demolition of Unsafe Buildings, and Long-Term Recovery)
- **Module 4:** Review and Findings

Participants will be introduced to Objectives and Discussion Points that support those objectives. They will be asked to respond to facilitated questions and provide comments on Plan content when issues arise. The workshop will conclude with a summary of reviewed concepts, strengths, gaps and areas for improvement, and next steps.

### Workshop Guidelines

The following guidelines apply during the workshop: **Note: these guidelines can be modified by the jurisdiction. For example, if a jurisdiction wants to evaluate the assumptions derived from the HAZUS analysis, they can do so.**

- The primary goal of the workshop forum is to ensure that the coordination, resource-requesting and decision-making processes within the Plan's Concept of Operations are accurately described.
- Emphasis for this workshop is on identifying potential inaccuracies or gaps and resolving them using facilitated discussion among stakeholders.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response and preparedness efforts. Developing solutions should be the focus.
- The ability to evaluate the content of the Plan depends on thoughtful input from participants.
- Participants are encouraged to participate based on their knowledge of existing plans and capabilities and insights as well as from their review of the Plan.
- Decisions are not precedent-setting and may not reflect the final position of individual participants' organization on a given issue. The workshop is an opportunity to present and discuss multiple options and possible solutions.
- During the response, cooperation and support from other responders and agencies is assumed.
- The scenario, objectives, and assumptions serve as the basis for discussion.
- The workshop is designed to evaluate elements in the Plan, not the scenario or the Hazards U.S. (HAZUS) software estimates used to develop some of the assumptions.

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# Module 1: Overview of the [Jurisdiction] Catastrophic Earthquake Debris Removal Plan

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## Plan Overview

The Plan describes [Jurisdiction] debris removal operations in response to the earthquake.

The term “debris removal,” as used in this Plan, refers to all phases of debris management operations, including debris clearance, removal, sorting, staging, and processing; disposal; and demolition.

The following issues related to debris are addressed in detail in the Plan:

- Development of situational awareness and priorities
- Debris clearance
- Assessment of buildings and infrastructure
- Staging, processing, and disposal of debris
- Debris removal
- Demolition of unsafe buildings and infrastructure

The Plan provides operational details for each of the issues identified above.

The Plan includes the following appendices: **Note: In the section below provide a description for how the Plan is structured. The description here is an example and may not represent exactly how your jurisdiction’s plan is organized.**

- **Appendix A:** Glossary of acronyms, abbreviations, and key terms
- **Appendix B:** Maps that are referenced in the Plan
- **Appendix C:** Authorities, Regulations, and Requirements that affect Debris Removal Operations
- **Appendix D:** Tables referenced in the Plan
- **Appendix E:** Information Collection Plan for Debris Removal
- **Appendix F:** Information about the Federal Emergency Management Agency (FEMA) Public Assistance Program.
- **Appendix G:** Recommended procedures for debris operations and associated activities.

The sections below provide additional information about the specific impacts associated with the scenario event, and the assumptions made about debris removal operations based on the scenario.

## Scenario

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 HAZUS analysis<sup>1</sup> performed by the Earthquake Engineering Research Institute, with support from the U.S. Geological Survey and the California Governor’s Office of Emergency Services (Cal OES), beginning in 2005 and modified in 2009 by URS Corporation for the RCPGP.

**Note: the scenario impacts listed below are from the Regional Plan. Your jurisdiction may wish to use the local impacts for your jurisdiction in lieu of these. The most important impact to include here would be the amount of debris. Keep in mind, that awareness of the impacts of neighboring jurisdictions is useful in understanding the full context of the scenario event.**

Some of the initial impacts, to the region, of the earthquake scenario projected by HAZUS analysis are (the following tables are from the Regional Catastrophic Earthquake Debris Removal Plan, tables that provide information for just your jurisdiction and the region as a whole can be found in your jurisdiction specific plan should you prefer to use those):

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<sup>1</sup> HAZUS is a loss estimation software program that was developed by the National Institute of Building Sciences (NIBS) for FEMA. The version used for this analysis (HAZUS MR3) was developed by NIBS in 2003.

**Table 1.** Tonnage and volume of debris generated by the earthquake (Debris Plan, Appendix D, Table D-6).

County/City	Tonnage (in thousands of tons)			Volume (in thousands of cubic yards)		
	Wood/ Brick/Other	Concrete/ Steel	Total	Wood/ Brick/Other	Concrete/ Steel	Total
Alameda	3,600	7,300	<b>10,900</b>	7,100	7,300	<b>14,400</b>
Contra Costa	700	1,100	<b>1,800</b>	1,300	1,100	<b>2,400</b>
Marin	400	900	<b>1,300</b>	900	900	<b>1,800</b>
Monterey	200	300	<b>500</b>	400	300	<b>700</b>
Napa	200	400	<b>600</b>	400	400	<b>800</b>
San Benito	30	40	<b>70</b>	100	40	<b>140</b>
San Francisco	3,800	9,200	<b>13,000</b>	7,700	9,200	<b>16,900</b>
San Mateo	2,000	4,400	<b>6,400</b>	3,900	4,400	<b>8,300</b>
Santa Clara	3,600	8,100	<b>11,700</b>	7,100	8,100	<b>15,200</b>
Santa Cruz	300	500	<b>800</b>	600	500	<b>1,100</b>
Solano	200	300	<b>500</b>	300	300	<b>600</b>
Sonoma	800	1,700	<b>2,500</b>	1,700	1,700	<b>3,400</b>
<b>Regional Totals</b>	<b>15,830</b>	<b>34,240</b>	<b>50,070</b>	<b>31,500</b>	<b>34,240</b>	<b>65,740</b>
City of Oakland	1,100	2,400	3,500	2,200	2,400	4,600
City of San Jose	1,900	4,100	6,000	3,800	4,100	7,900

Source: URS HAZUS analysis (2009); conversion rates from the U.S. Army Corps of Engineers. Values converted from thousands of tons. For wood/brick/other, the conversion is 1 ton = 2 cubic yards; for concrete/steel, the conversion is 1 ton = 1 cubic yard.

**Table 2.** Number of buildings in the 12-county Bay Area region that may require demolition after the earthquake (Debris Plan, Appendix D, Table D-7).

County/City	Number of Buildings	
	Extensive Damage	Complete Damage
Alameda	11,300	36,100
Contra Costa	1,400	8,400
Marin	1,400	4,500
Monterey	1,300	100
Napa	1,200	1,600
San Benito	300	20
San Francisco	18,600	16,300
San Mateo	8,200	16,600
Santa Clara	14,700	45,500
Santa Cruz	4,100	600
Solano	400	2,400
Sonoma	6,600	7,700
<b>Regional Totals</b>	<b>69,500</b>	<b>139,800</b>
City of Oakland	4,900	7,100
City of San Jose	8,100	26,900

Source: URS HAZUS analysis (2009)

**Table 3.** Number of households without potable water after the scenario earthquake (MCS Plan Table 2-1).

County	Total Households	Households without Potable Water Post-Earthquake			
		E+24 Hours	E+72 Hours	E+7 Days	E+30 Days
Alameda	564,200	465,000	459,800	448,200	341,800
Contra Costa	384,600	105,700	85,700	45,600	N/A
Marin	105,300	56,300	48,600	29,300	N/A
Monterey	130,300	N/A	N/A	N/A	N/A
Napa	50,300	3,900	<100	0	0
San Benito	17,300	N/A	N/A	N/A	N/A
San Francisco	358,900	340,100	336,400	326,100	N/A
San Mateo	268,000	236,900	234,300	228,100	149,700
Santa Clara	624,700	516,800	512,300	502,700	423,100
Santa Cruz	95,800	16,100	6,500	<100	<100
Solano	140,900	12,500	3,700	<100	<100
Sonoma	182,900	87,800	81,900	69,100	<100
<b>Total</b>	<b>2,923,200</b>	<b>1,841,100</b>	<b>1,769,200</b>	<b>1,649,400</b>	<b>914,900</b>

Source: HAZUS analysis conducted by URS in 2009. The estimates were adjusted, by county, for population increases since 2000.

E = scenario event

N/A = Not available (HAZUS results are unreliable)

**Table 4.** Number of households without electricity after the scenario earthquake (MCS Plan Table 2-2).

County	Total Households	Households without Electricity Post-Earthquake			
		E+24 Hours	E+72 Hours	E+7 Days	E+30 Days
Alameda	564,200	23,600	13,700	5,400	1,200
Contra Costa	384,600	15,400	9,300	3,700	800
Marin	105,300	3,700	2,400	1,100	200
Monterey	130,300	N/A	N/A	N/A	N/A
Napa	50,300	2,000	1,200	500	100
San Benito	17,300	N/A	N/A	N/A	N/A
San Francisco	358,900	253,900	161,300	73,100	18,300
San Mateo	268,000	100,100	62,800	27,900	6,800
Santa Clara	624,700	57,100	34,300	14,400	3,400
Santa Cruz	95,800	15,500	9,600	3,900	800
Solano	140,900	5,600	3,200	1,400	300
Sonoma	182,900	60,000	40,400	19,700	5,000
<b>Total</b>	<b>2,923,200</b>	<b>536,900</b>	<b>338,200</b>	<b>151,100</b>	<b>36,900</b>

Source: HAZUS analysis conducted by URS in 2009. The estimates are adjusted, by county, for population increase since the year 2000. For Contra Costa, Napa, and Solano counties, the power loss is not accurately represented in HAZUS and is an average of losses for Alameda and Marin counties. HAZUS does not provide reliable results for Monterey and San Benito counties, but it can be assumed that there will be some power loss in these counties.

E = scenario event

N/A = Not available (HAZUS results are unreliable)



The characteristics of the scenario event and its impacts on the region are as follows:

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 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.
8. Ground shaking and damage occur in 19 California counties, from Monterey County in the south to Humboldt County in the north and into the San Joaquin Valley to the east.
9. Damage is catastrophic in the areas that experience shaking intensities of MM IX and X and in the areas with 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, including widespread collapse of buildings
  - Structural and nonstructural damage to infrastructure
  - Widespread fires

- Subsidence and loss of soil-bearing capacity, particularly in areas of liquefaction
  - Displacement along the San Andreas fault
  - Widespread landslides
  - 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.

### **Debris Removal Assumptions**

Note: in this section please enter the assumptions identified in your Jurisdiction's Debris Removal Plan. The assumptions are used to enhance the scenario description and provide a basis for the discussion.





# Module 2: Objectives 1 to 4

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## Objective 1: Situational Awareness and Priorities

Objective 1 is to evaluate the tasks identified for the development of situational awareness and priority operations.

### Discussion Point 1: Developing situational awareness

#### Facilitation Questions:

1. Does the Plan properly define the process to develop situational awareness at the [City or Operational Area](#)?
2. Should additional debris-related information be acquired by the [City or Operational Area](#)? Such as:
  - Determining the utility of and accessibility to the State highway system and local transportation routes
  - Determining the accessibility to critical facilities; areas of large amounts of debris and/or earthen debris caused by landslides
  - Identifying the names and/or locations of infrastructure, critical facilities, and large buildings that have partially or totally collapsed
3. Do additional agencies exist that may be able to provide situational awareness about debris to the [City or Operational Area](#)?

### Discussion Point 2: Determining debris clearance priorities

#### Facilitation Questions:

1. How will debris clearance priorities for routes that cross jurisdictional boundaries be defined by the [City or Operational Area](#)? How will the [City or Operational Area's](#) input be applied?
2. California Highway Patrol and Caltrans representatives will provide input on debris clearance priorities to ensure that cross county boundaries are cleared simultaneously. How will their input be obtained and applied within the [City or Operational Area](#)?





## Objective 2: Debris Clearance

Objective 2 is to evaluate the tasks identified for debris clearance operations and discuss Public Assistance Program eligibility requirements for debris clearance operations.

### Discussion Point 1: Determining and securing debris clearance resources

#### Facilitation Questions:

1. How will debris clearance resources be allocated?
2. How will debris clearance resource shortfalls be determined?

### Discussion Point 2: Clearing debris

#### Facilitation Questions:

1. Does the Plan properly define the process to oversee debris clearance operations for the [City or Operational Area](#)?
2. Does the plan identify all relevant regional, State, and Federal authorities, regulations, and requirements that affect debris clearance operations?
3. Does the Plan clearly explain the role of the Debris Task Force for debris clearance operations?
4. Does the Plan clearly state why debris clearance along Federal-Aid routes must be documented separately from debris clearance along local roads?
5. Does the Plan accurately depict how local governments will work with Caltrans to determine debris clearance responsibility along State highway systems within local jurisdictional boundaries?

### Discussion Point 3: Understanding the Public Assistance Program's eligibility requirements for debris clearance

#### Discussion Topics:

1. What are permissible debris clearance activities under state and federal public assistance program criteria?
2. Has the [City or Operational Area](#) identified any debris clearance contractors?







### **Objective 3: Building and Infrastructure Assessments**

Objective 3 is to evaluate the tasks identified for the assessment of buildings and infrastructure and discuss Public Assistance Program eligibility requirements for the assessment of buildings and infrastructure.

#### **Discussion Point 1: Determining and securing safety assessment resources**

##### **Facilitation Questions:**

1. How will safety assessment resources be allocated?
2. How will safety assessment resource shortfalls be determined?

#### **Discussion Point 2: Conducting safety assessments**

##### **Facilitation Questions:**

1. Is the process to oversee safety assessments in [City or Operational Area](#) defined?
2. Does the Plan identify all of the regional, State, and Federal authorities, regulations, and requirements that affect safety assessments?
3. Should the Debris Task Force include a safety assessment function?

#### **Discussion Point 3: Understanding the Public Assistance Program's eligibility requirements for safety assessments**

##### **Discussion Topics:**

1. What are the permissible safety assessment activities under state and federal public assistance program criteria?
2. How does the [City or Operational Area](#) expect to acquire safety assessment resources?





## Objective 4: Staging, Processing, and Disposal of Debris

Objective 4 is to evaluate the tasks identified for the staging, processing, and disposing of debris and discuss Public Assistance Program eligibility requirements for the staging, processing, and disposing of debris.

**Discussion Point 1:** Determining and securing debris management sites and monitoring resources

### Facilitation Questions:

1. How will debris management sites be identified?
2. How will debris management site shortfalls be determined?

**Discussion Point 2:** Determining debris management sites, processing facilities, and landfills

### Facilitation Questions:

1. The Plan discusses the use of regional debris management sites. Does the [City or Operational Area](#) expect to move debris to these locations? How likely is it that this type of site will be established?
2. Does the Plan identify all of the regional, State, and Federal authorities, regulations, and requirements that affect debris management site, processing facility, and landfill operations?
3. Does the Plan clearly explain the role of the Debris Task Force for the staging, processing, and disposing of debris?
4. What is the [City or Operational Area's](#) strategy if facilities/landfills become overwhelmed?

**Discussion Point 3:** Understanding the Public Assistance Program's eligibility requirements for staging, processing, and disposing of debris

### Discussion Topics:

1. Has the [City or Operational Area](#) pre-identified debris management sites?
2. Does the Plan adequately describe debris management site preparation, operation, and closeout procedures?
3. Has the [City or Operational Area](#) identified debris management site monitors?







# Module 3: Objectives 5 to 7

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## Objective 5: Debris Removal

Objective 5 is to evaluate the tasks identified for debris removal operations and discuss Public Assistance Program eligibility requirements for debris removal operations.

### Discussion Point 1: Determining and securing debris removal resources

#### Facilitation Questions:

1. How will debris removal resources be allocated?
2. How will debris removal resource shortfalls be determined?

### Discussion Point 2: Removing debris

#### Facilitation Questions:

1. Does the Plan properly define the process to oversee debris removal operations for the [City or Operational Area](#)?
2. Does the Plan identify all of the regional, State, and Federal authorities, regulations, and requirements that affect debris removal operations?
3. Does the Plan clearly explain the role of the Debris Task Force for debris removal operations?

### Discussion Point 3: Understanding the Public Assistance Program's eligibility requirements for debris removal

#### Discussion Topics

1. Does the Plan identify permissible types of debris to be collected under state and federal public assistance program criteria?
2. Does the Plan identify permissible types of collection methods under state and federal public assistance program criteria?
3. Has the [City or Operational Area](#) identified debris removal contractors?
4. Has the [City or Operational Area](#) identified debris removal monitors?





## **Objective 6: Demolition of Unsafe Buildings**

Objective 6 is to evaluate the tasks identified for demolition of unsafe buildings and infrastructure and discuss Public Assistance Program eligibility requirements for the demolition of unsafe buildings and infrastructure.

### **Discussion Point 1:** Determining and securing demolition resources

#### **Facilitation Questions:**

1. How will demolition resources be identified and allocated?
2. How will demolition resource shortfalls be determined?

### **Discussion Point 2:** Demolishing unsafe buildings and infrastructure

#### **Facilitation Questions:**

1. Does the Plan properly define the process to oversee demolition operations at the [City or Operational Area](#)?
2. Does the Plan identify all of the regional, State, and Federal authorities, regulations, and requirements that affect the demolition of unsafe buildings and structures?
3. Does the Plan clearly explain the role of the Debris Task Force for the demolition of unsafe buildings and infrastructure?

### **Discussion Point 3:** Understanding the Public Assistance Program's eligibility requirements for demolition

1. Does the Plan identify permissible demolition activities under state and federal public assistance program criteria?
2. Has the [City or Operational Area](#) identified demolition contractors?





## **Objective 7: Long-Term Recovery**

Objective 7 is to evaluate the tasks identified for long-term debris removal recovery operations and discuss Public Assistance Program funding requirements for long-term debris removal recovery operations.

### **Discussion Point 1:** Defining long-term recovery debris removal operations

#### **Facilitation Questions:**

1. What role if any does the **City or Operational Area** Play in long-term debris removal operations?
2. Does the Plan properly define the process to oversee long-term debris removal operations for the **City or Operational Area**?

### **Discussion Point 2:** Identifying organizations to handle long-term recovery debris removal operations

#### **Facilitation Questions:**

1. Debris removal operations can go on for months, if not years. The Plan does not reference any type of organization at the **City or Operational Area** level to handle long-term debris removal recovery issues. Should the Plan reference these organizations or an organizational structure?

### **Discussion Point 3:** Understanding the Public Assistance Program's eligibility requirements for long-term debris removal recovery operations

#### **Discussion Topics:**

1. Does the Plan address Category A – debris removal extension?
2. Does the Plan describe the Closeout Report?
3. Does the Plan describe how to document force account and/or contracted labor?







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# Module 4: Review and Findings

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## 1: Reviewed Concepts

Review the critical concepts that were evaluated during the workshop discussion.

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## 2: Strengths

Identify any strengths that were discovered during the workshop.

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### 3: Identified Gaps or Areas for Improvement

Review any gaps or areas for improvement in the Plan that were identified during the workshop discussion.

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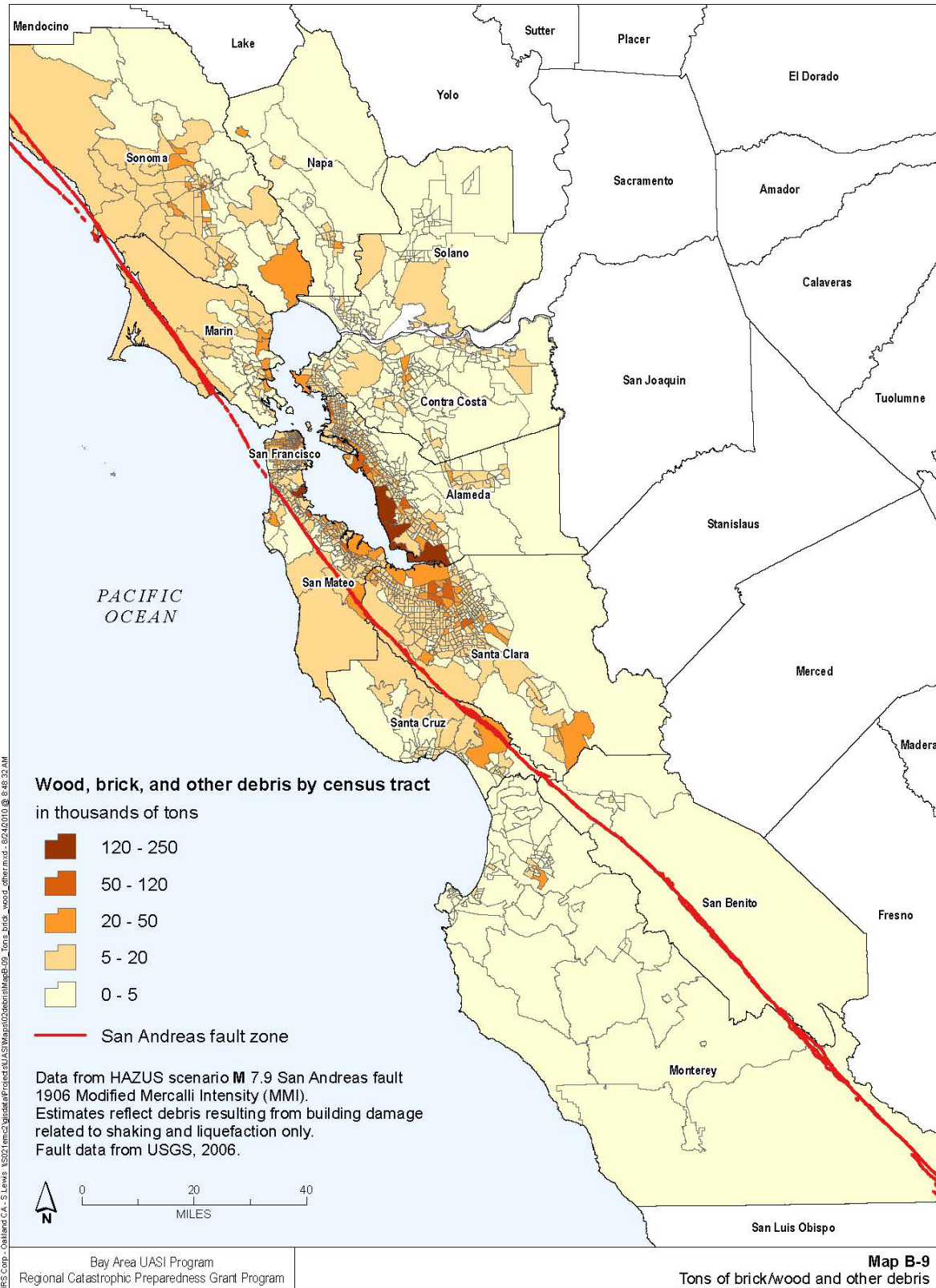
### 4: Next Steps

Note: following the workshop, the Jurisdiction should consider next steps for inclusion in the manual. Next steps may include: the development of an After Action Report/Workshop Summary Report, an After Action Meeting, additional workshops or working groups, and revisions to the Plan. Use this section to detail these next steps.

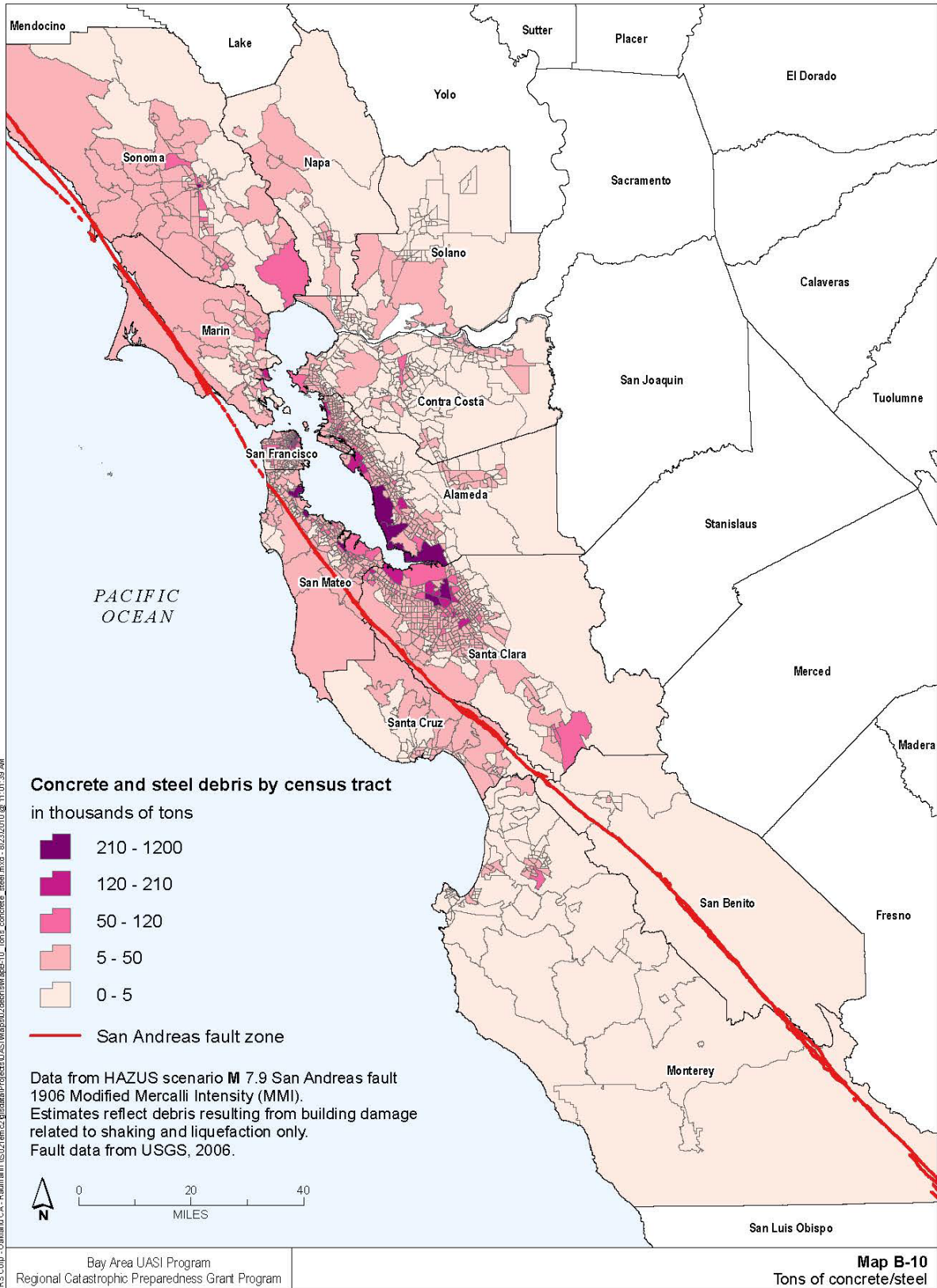
## **Appendix A: Maps**

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**Map 1. Tons of brick/wood and other debris**  
 (from the Regional Catastrophic Earthquake Debris Removal Plan)

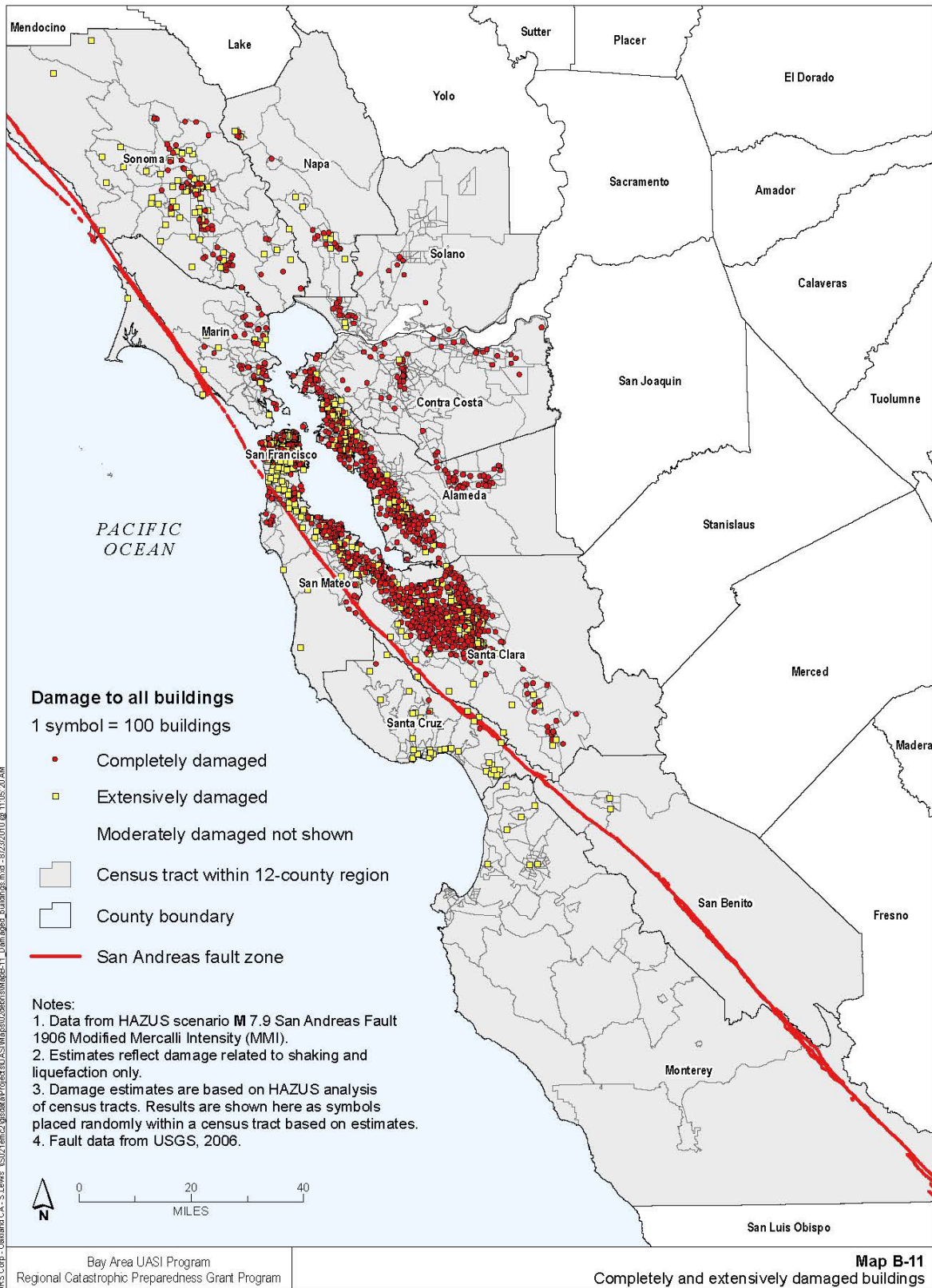


**Map 2. Tons of concrete/steel**  
 (from the Regional Catastrophic Earthquake Debris Removal Plan)



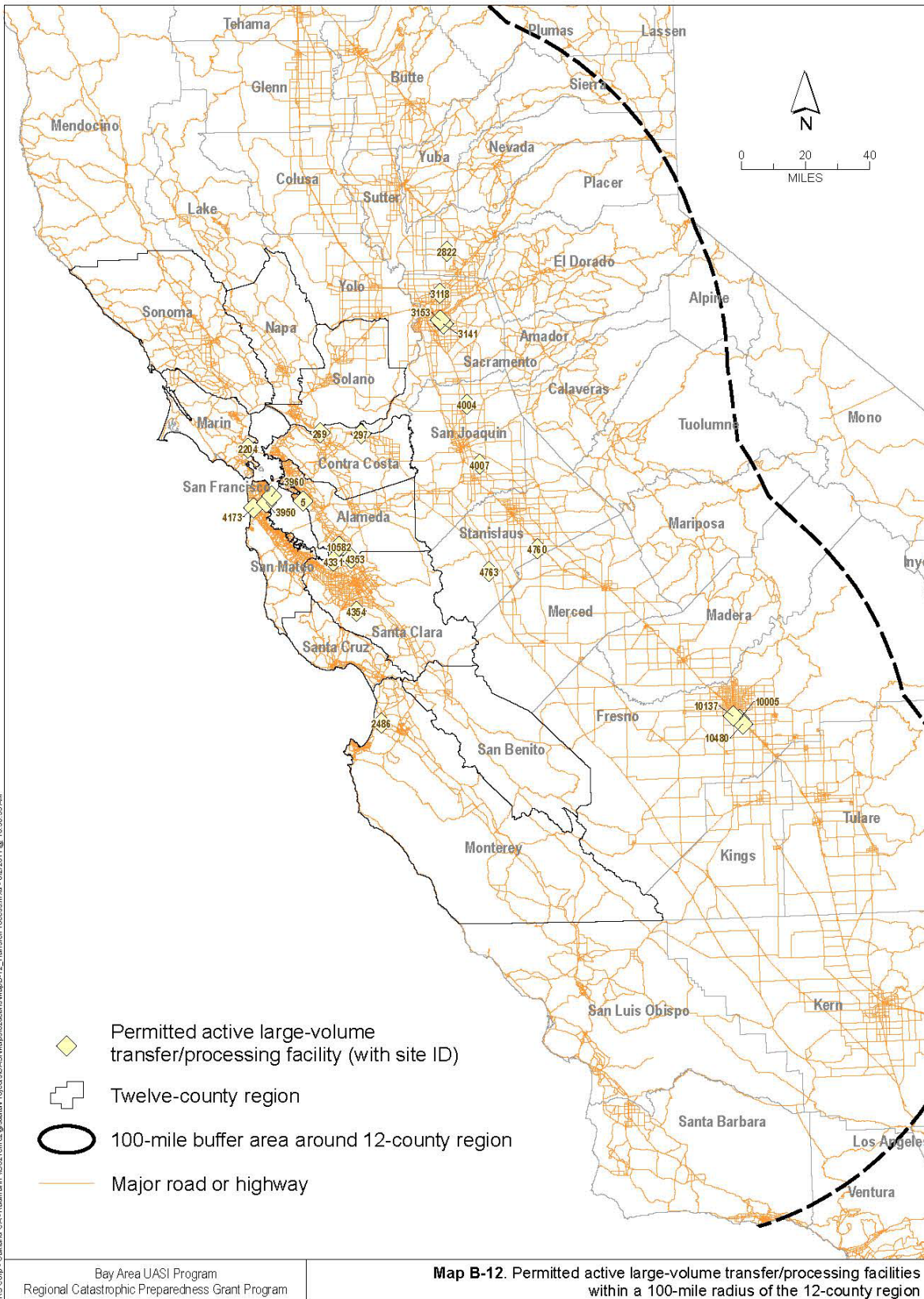


**Map 3. Completed and extensively damaged buildings**  
 (from the Regional Catastrophic Earthquake Debris Removal Plan)



URS Corp. - Oakland CA - S. Lewis - \S02\emc2\gis\data\Project\AS\Map\to\debris\Map3-11\_Damaged\_Buildings.mxd - 8/23/2010 @ 11:05:20 AM

**Map 4. Permitted active large-volume transfer/processing facilities within a 100-mile radius of the 12-county region**  
 (from the Regional Catastrophic Earthquake Debris Removal Plan)



**Map 5. Permitted active solid waste landfills with a maximum throughput of 1,500 tons per day or greater within a 100-mile radius of the 12-county region**  
 (from the Regional Catastrophic Earthquake Debris Removal Plan)

