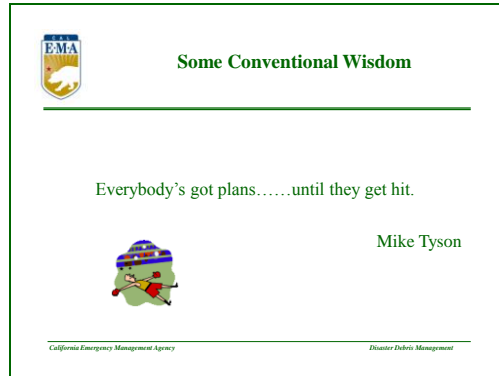


# **DEBRIS MANAGEMENT PLAN**

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## Introduction



This quote is an accurate statement regarding disasters. Everyone thinks they know or will know how to handle anything that is thrown their way. Sadly, as seen by the devastation from Hurricane Katrina, it's not always true. Plans themselves do not always work the way they are intended to, especially if you can't control all the elements involved. A proper planning process requires consideration of all possible elements and is of itself, priceless.

After years of fires, earthquakes and civil unrest, resulting in tons of debris, emergency management realized the need for a systems approach to debris management. This approach emphasizes the interdependency and connectivity of all aspects of debris management. The incorporation of debris management into local emergency planning activities is an essential element of disaster preparedness and cost-effective response and recovery operations.

The information presented is intended to assist in the development of a coordinated, statewide strategy for the management of disaster-related debris generated in California. This document also provides guidance to local jurisdictions regarding disaster debris management including planning tools, standard operating procedures, and disaster relief grant eligibility criteria. Assistance with more rapid issue resolution and informational resources are also provided.

## Why Another Plan?



**Why?**

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- Promote planning process
  - Invaluable experience
- Coordinate with local, state, and federal agencies
  - Resources & technical assistance
- Use disposal alternatives
  - Recycling, chipping, composting, salvage
- Provide training and technical assistance
  - Familiarize staff



California Emergency Management Agency      Disaster Debris Management

To maximize resources while minimizing the debris load to landfills following a disaster, local government is encouraged to incorporate debris management in their emergency and solid waste management planning activities. As part of the planning process, local government should identify jurisdictional characteristics, potential disaster types, event characteristics and the debris anticipated as a result. Local emergency plans should be coordinated with solid waste planning to include debris management strategies, reuse and recycling opportunities, quantity estimations, landfill capacities, landfill class/type and potential temporary storage sites.

Successful debris planning efforts will result in more efficient use of limited resources, timely access to critical infrastructure and environmentally safe solutions to debris issues.

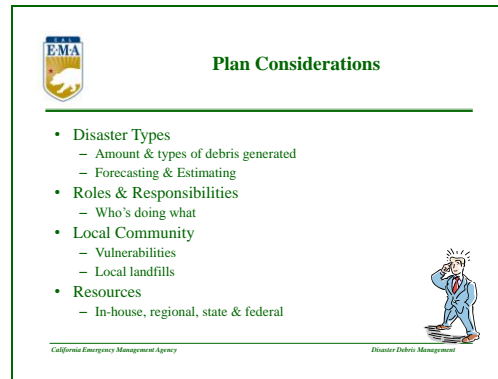
Local preparedness will assist the State in diverting significant amounts of recyclable materials that would otherwise be disposed of as debris and thus preserving the State's landfill capacity.

It is also essential that debris management planning activities become an integral part of other emergency planning activities within the jurisdiction. Local government should also participate in neighboring emergency planning activities, regional emergency planning activities and mutual aid planning to ensure the appropriate risks are factored into the planning process. Toward this end, Cal EMA may provide technical assistance as appropriate to local government and facilitate the integration of state and federal requirements into these planning efforts.

The core components of the state disaster debris management strategy include:

- Promoting planning
- Coordinating federal, state, and local agencies and private companies
- Standardizing operational procedures
- Utilizing disposal alternatives
  - o Optimizing the use of limited resources
  - o Utilizing environmentally sound management approaches
  - o Applying economic criteria to alternative considerations
- Providing training and technical assistance regarding regulations, guidelines and policies.

## Considerations



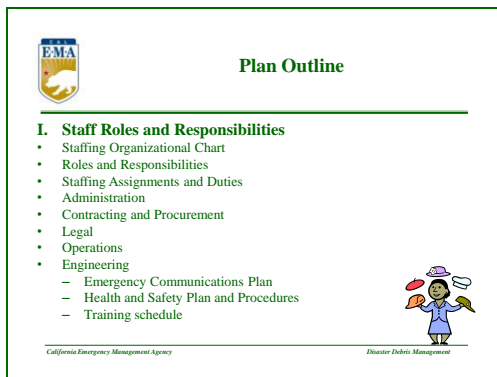
The slide features the EMA logo in the top left corner. The title "Plan Considerations" is centered at the top. A bulleted list is presented on the left side, and a cartoon illustration of a man in a suit thinking is on the right. The footer contains the text "California Emergency Management Agency" and "Disaster Debris Management".

**Plan Considerations**

- Disaster Types
  - Amount & types of debris generated
  - Forecasting & Estimating
- Roles & Responsibilities
  - Who's doing what
- Local Community
  - Vulnerabilities
  - Local landfills
- Resources
  - In-house, regional, state & federal

- The main considerations of the plan should take into account:
  - o The type(s) of disaster(s) that potentially might occur, or have occurred, in your community
  - o The magnitude of a disaster will require varying levels of resources – therefore, must consider:
    - ♦ Supplemental assistance available from local, State or Federal programs and resources
    - ♦ In-house capability to respond to varying magnitudes
    - ♦ Types of supplemental assistance that are available from mutual-aid agreements, the State Department of Transportation, or other external resources
    - ♦ The size and number of contracts that may be required
  - o Determine the level of detail to provide in the Plan and how to handle contingencies

## Plan Outline

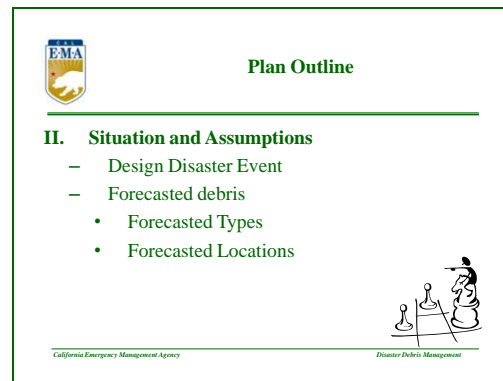


The slide features the EMA logo in the top left corner. The title "Plan Outline" is centered at the top. Section I, "Staff Roles and Responsibilities", is followed by a bulleted list. A cartoon illustration of a woman with a hat is on the right. The footer contains the text "California Emergency Management Agency" and "Disaster Debris Management".

**Plan Outline**

**I. Staff Roles and Responsibilities**

- Staffing Organizational Chart
- Roles and Responsibilities
- Staffing Assignments and Duties
- Administration
- Contracting and Procurement
- Legal
- Operations
- Engineering
  - Emergency Communications Plan
  - Health and Safety Plan and Procedures
  - Training schedule



The slide features the EMA logo in the top left corner. The title "Plan Outline" is centered at the top. Section II, "Situation and Assumptions", is followed by a bulleted list. A cartoon illustration of a person at a desk is on the right. The footer contains the text "California Emergency Management Agency" and "Disaster Debris Management".

**Plan Outline**

**II. Situation and Assumptions**

- Design Disaster Event
- Forecasted debris
  - Forecasted Types
  - Forecasted Locations

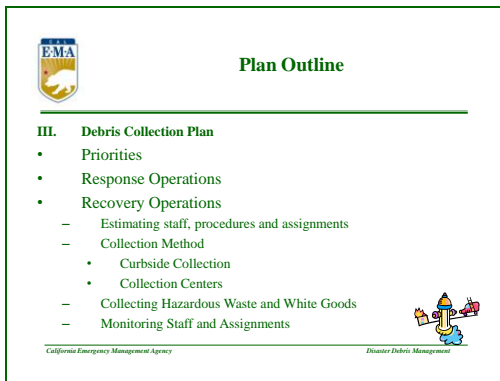
At a minimum, a good debris plan should incorporate and/or address the following elements:

- I. Staff Roles and Responsibilities
  - o Staffing Organizational Chart
  - o Roles and Responsibilities

- o Emergency Communications Plan
- o Health and Safety Plan and Procedures
- o Training schedule
- II. Situation and Assumptions
  - o Design Disaster Event
  - o Forecasted debris
  - o Forecasted Locations

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**Plan Outline – Cont'd**



The slide features the EMA logo in the top left corner. The title "Plan Outline" is centered at the top. Below the title, the section "III. Debris Collection Plan" is listed with a bulleted structure: "Priorities", "Response Operations", and "Recovery Operations". Under "Recovery Operations", there are three sub-points: "Estimating staff, procedures and assignments", "Collection Method" (with sub-points "Curbside Collection" and "Collection Centers"), and "Collecting Hazardous Waste and White Goods". A final sub-point is "Monitoring Staff and Assignments". A small cartoon character is positioned at the bottom right of the text area. At the very bottom, the text "California Emergency Management Agency" and "Disaster Debris Management" are printed.



The slide features the EMA logo in the top left corner. The title "Plan Outline" is centered at the top. Below the title, the section "IV. Debris Management Sites" is presented in two columns. The left column lists: "Site Management", "Site Manager", "Monitoring Staff and Assignments", "Safety Personnel", "Establishment and Operations Planning", "Permits", and "Locations". The right column lists: "Site Layouts", "Site Preparation", "Site Layout", "Volume Reduction Methods", "Recycling", "Environmental Monitoring Program", and "Site Closure". A small cartoon character is positioned at the bottom right of the text area. At the very bottom, the text "California Emergency Management Agency" and "Disaster Debris Management" are printed.

- III. Debris Collection Plan
  - o Priorities
  - o Response Operations
  - o Recovery Operations
- IV. Debris Management Sites
  - o Site Management
  - o Establishment and Operations Planning

### Plan Outline – Cont'd

**Plan Outline**

**V. Contracted Services**

- Emergency Contracting/Procurement Procedures
- Debris operations to be outsourced
- General Contract Provisions
- Qualification Requirements
- Solicitation of Contractors

California Emergency Management Agency Disaster Debris Management

**Plan Outline**

**VI. Private Property Demolition and Debris Removal**

- Condemnation criteria and procedures
  - Legal documentation
  - Demolition permitting
  - Inspections
- Mobile home park procedures
- Navigation hazard removal procedures

California Emergency Management Agency Disaster Debris Management

- V. Contracted Services
    - o Emergency Contracting/Procurement Procedures
    - o Debris operations to be outsourced
    - o General Contract Provisions
    - o Qualification Requirements
    - o Solicitation of Contractors
  - VI. Private Property Demolition and Debris Removal
    - o Condemnation criteria and procedures
    - o Mobile home park procedures
    - o Navigation hazard removal procedures
- 

### Plan Outline – Cont'd

**Plan Outline**

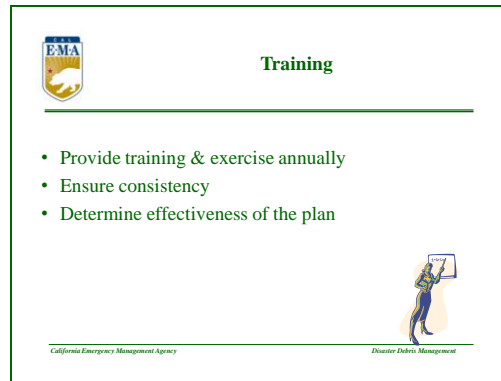
**VII. Public Information Plan**

- Public Information Officer
- Pre-scripted information
- Distribution plan

California Emergency Management Agency Disaster Debris Management

- VII. Public Information Plan
  - o Public Information Officer
  - o Pre-scripted information
  - o Distribution plan

## Training



The slide features the Cal EMA logo in the top left corner. The title "Training" is centered at the top. Below the title is a horizontal line. A bulleted list contains three items: "Provide training & exercise annually", "Ensure consistency", and "Determine effectiveness of the plan". In the bottom right corner, there is an illustration of a person pointing at a screen. At the very bottom, there are two small text labels: "California Emergency Management Agency" on the left and "Disaster Debris Management" on the right.

In order to ensure statewide consistency and adequacy of debris management operations, local, state and federal agencies should provide periodic training of the debris management plan to all potential participants in the debris management plan, including private companies franchised or contracted to provide service during a disaster. In addition, exercises should be developed to determine the efficiency and effectiveness of operational procedures. State agency resources are available to facilitate these training and exercise activities as well as technical assistance with debris management issues.

In addition, Cal EMA can provide training regarding disaster debris planning, state and federal grant eligibility and reasonable costs of debris management activities, disaster debris contracting issues and requirements, and estimating disaster debris volumes.

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## Summary



The slide features the Cal EMA logo in the top left corner. The title "Summary" is centered at the top. Below the title is a horizontal line. A bulleted list contains four items: "Plan is living document", "Plan must be adopted by implementing agencies & departments according to local government requirements", "Communication promotes diverse & innovative solutions", and "Have a system in place to update the plan". In the bottom right corner, there is an illustration of a person pointing at a screen. At the very bottom, there are two small text labels: "California Emergency Management Agency" on the left and "Disaster Debris Management" on the right.

- The Debris Management Plan is a living document. Once written, the following actions must be taken:
- o The plan must be approved by the implementing agencies and departments, and adopted according to city/county requirements
  - o The community must ensure there are procedures for providing training
  - o The plan must be exercised to ensure it works

- o The plan should be dynamic, reviewed and updated on an established, periodic basis