

**METRO**

MEETING: Special Meeting of the Solid Waste Advisory Committee
TOPIC: Disaster Debris Management Plan
DATE: April 13, 1994
DAY: Wednesday
TIME: 8:30-10:30 a.m.
PLACE: Metro Headquarters, 600 NE Grand Ave -- Room 370

1. Introduction

Councilor Ruth McFarland
Chair

2. Background - Origin of the Disaster Debris Management Plan

(10 min.)

Gerry Uba
Emergency Preparedness Program Coordinator, Metro

A major natural disaster in the Metro Region such as an earthquake, windstorm, or flood could produce disruptions in the delivery of normal garbage service and generate hundreds of thousands of tons of debris from demolished buildings or downed trees. The purpose of a Disaster Debris Management Plan is to increase preparedness for such disasters by inventorying resources and developing contingency plans.

Mr. Uba will explain how the need for this plan was identified by the Regional Emergency Management Policy Advisory Committee (composed of locally elected officials) and the Regional Emergency Management Technical Committee (composed of emergency management professionals from local city and county governments and the Red Cross). He will also describe Metro's role in developing the plan and its relation to other regional earthquake and emergency management planning.

3. The Earthquake Hazard in the Metro Region

(20 min.)

Ian Madin
Seismic Hazard Geologist, Oregon State Department of Geology and Mineral Industries

Mr. Madin will describe earthquake hazards within the region. He will discuss the geological causes of earthquakes, the chances of a major quake in our region, and expected variations in damage within the region due to different soil types or other local conditions.

4. Estimating Earthquake Damage to the Local Infrastructure (15 min.)
Gerry Uba

Mr. Uba will discuss "above ground" earthquake risks to buildings, utilities, roads, bridges and other part of the infrastructure.

5. Lessons from Recent Disasters: (15 min.)
Northridge Earthquake, Los Angeles County, Ca., 1994
Hurricane Iniki, Kauai Hawaii, 1992

Jim Goddard,
Recycling Program Manager, Metro

Mr. Goddard has gained first hand experience about managing debris from a natural disaster by visiting sites of recent earthquakes and hurricanes. He will show slides and present information about the types of debris produced and describe how it was managed. He will also discuss the variety of problems encountered, decisions made and lessons learned.

6. Review of Plan Outline and Schedule (30 min.)
Scott Klag, Senior Solid Waste Planner, Metro
Gerry Uba
Jim Goddard

A draft outline of a Disaster Debris Management Plan for the Metro region will be distributed for SWAC members to review. The work necessary to complete this plan will be discussed.

DRAFT OUTLINE
DISASTER DEBRIS MANAGEMENT PLAN

I. Identify and Develop Planning Team

- A. Local emergency response
- B. Existing solid waste processing infrastructure
- C. Federal Emergency Management Agency (FEMA)
- D. Media
- E. Public
- F. Contractors

II. Develop Plan Goals

Examples of goals:

- A. Minimize environmental impact
 - 1. Recycle and salvage; minimize landfill use
 - 2. Limit burning
 - 3. Police illegal dumping
 - 4. Support health and safety efforts
- B. Assist in recovery of personal property
- C. Align with existing Regional Solid Waste Management Plan goals
- D. Provide emergency debris management services
 - 1. Pickup of all disaster debris
 - 2. Adjust disposal fees
- E. Utilize local contractors to provide debris management services

III. Debris Prediction Analysis

- A. Define types of disaster debris
- B. Estimate quantity of debris
- C. Develop link with earthquake damage assessment team
- D. Develop methods to map and model distribution of damage

IV. Inventory Resources

- A. Solid waste hauling/other collection contractors
- B. Processing capacity/location
- C. Demo/construction contractors
- D. Market for materials to manage debris
 - 1. Quality
 - 2. Quantity
 - 3. End uses
 - 4. Preparation requirements

V. Identify Needs of Response and Recovery Phases

- A. Resumption of normal garbage and recycling service
 - 1. Immediate putrescible surge (health and safety issues)
 - 2. On-site recycling of materials and debris (e.g. emergency water bottles and building materials)
- B. Demolition/material preparation
 - 1. Contractors
 - 2. Identify materials to separate; methods used
- C. Collection of debris
 - 1. Solid waste haulers/self haul
 - 2. Contractors
 - 3. Call up service/area sweeps
- D. Storage/processing/transfer
 - 1. Capacity
 - 2. Location/traffic
 - 3. Duration
 - 4. Layout/environmental protection
 - 5. Operators
 - 6. Hazardous waste
 - 7. Closure
 - 8. Temporary sites versus permanent sites
 - 9. Processing rate
- E. Hauling for disposal and to market
 - 1. Capacity
 - 2. Flow Rate
- F. Landfill availability
- G. Administrative resources
 - 1. Staff/facilities
 - 2. Cash flow
 - 3. Exemptions/bans/incentives
 - 4. Call-in services/public information capacity

VI. Identify Gaps Between Resources and Service Needs

Examples include:

- A. Extend/expand existing contracts with emergency clauses
- B. "Harden" solid waste system
- C. Identify and develop temporary sites
- D. Establish boilerplate contracts for needed services
- E. Hotline/public information network

VII. Develop Framework Plan

- A. Formal identification of key planning issues
- B. Develop objectives consistent with goals
- C. Develop detailed schedule for completion of plan

VIII. Plan formulation

- A. Development of debris management alternatives
- B. Criteria for evaluating alternatives
- C. Cost analysis
 - 1. Define full cost accounting method
 - 2. Obtain FEMA input/approval
- D. Evaluation of alternatives
- E. Final plan formulation

IX. Develop Forms, Contracts and Other Tools

- A. Record keeping forms
- B. Time and materials records
- C. Boilerplate contracts
- D. Damage coordination
- E. Quantity/dollar records at sites
- F. Public information/news release

X. Implementation Requirements

- A. Define financial responsibility/contract authority;
develop intergovernmental agreements
 - 1. Local governments
 - 2. Metro
 - 3. FEMA
- B. Site operations
- C. Phone/request coordination
- D. Media communications
- E. Interjurisdictional communications

XI. Development and Implementation of Final Plan

- A. Adoption as part of Solid Waste Management Plan
- B. Material requirements
- C. Methods for management
- D. Qualifications of service providers
- E. Educate public/response teams

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DRAFT TIMELINE
DISASTER DEBRIS MANAGEMENT PLAN

Staff Activities & Proposed Reporting Dates to the Solid Waste Advisory Committee.

Planning process will also be coordinated with the Regional Emergency Management Policy Advisory Committee.

June - July 1994

- I. Identify and Develop Planning Team
- II. Develop Plan Goals

July 1994

- Report to Solid Waste Advisory Committee (SWAC) for review and comment on plan goals

August - October 1994

- III. Debris Prediction Analysis
- IV. Inventory Resources
- V. Identify Needs of Response and Recovery Phases
- VI. Identify Gaps Between Resources and Service Needs

October 1994

- Report to SWAC for review and comment on issues identified during resource and needs analysis

November -December 1994

- VII. Develop Framework Plan
- Present Framework Plan to SWAC for review and comment

December 1994 - March 1995

- VIII. Plan Formulation
- IX. Develop Forms, Contracts and Other Tools
- X. Implementation Requirements

April 1995

- Present Draft Plan to SWAC for review and comment

May - June 1995

- XI. Development and Implementation of Final Plan

July 1995

- Completed Plan presented to SWAC for final review and approval, and brought forward to Metro Solid Waste Committee and Council

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