BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING THE REGIONAL DISASTER DEBRIS MANAGEMENT PLAN AND INCORPORATING PART 2 INTO THE REGIONAL SOLID WASTE MANAGEMENT PLAN	))))))	ORDINANCE NO. 97- 673 Introduced by Mike Burton Executive Officer

WHEREAS, the Regional Solid Waste Management Plan (Solid Waste Plan) was adopted by Metro Council November 1995 through Metro Ordinance No. 95-624; and

WHEREAS, the Solid Waste Plan includes goals and objectives for disaster management and mandates the development of recommended practices for disaster management; and

WHEREAS, Metro is a member of the Regional Emergency Management Group (REMG), which is developing the Regional Emergency Management Plan (REMP); and

WHEREAS, one of the major elements being addressed by REMG in the REMP is disaster debris; and

WHEREAS, the flood of 1996 in the Metro region demonstrated the need for a regional disaster debris management plan to ensure that debris management activities after a disaster are coordinated, effective, and address the waste management hierarchy; and

WHEREAS, The ordinance was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. The Regional Disaster Debris Management Plan as shown in Exhibit A to this ordinance is adopted and Part 2 incorporated into the Regional Solid Waste Management Plan, a functional plan under ORS268.390.

ADOPTED by the Metro Council this 1st day of May, 1997.

Jon Kvistad, Presiding Officer

ATTEST:

Recording Secretary

Approved as to Form:

Daniel B. Cooper, General Counsel

KH:gbc
s:\share\hoss\disaster\97-673.ord

STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 97-673 FOR THE PURPOSE OF ADOPTING THE REGIONAL DISASTER DEBRIS MANAGEMENT PLAN AND INCORPORATING PART TWO INTO THE REGIONAL SOLID WASTE MANAGEMENT PLAN.

DATE: December 13, 1996 Presented by: Marie Nelson

PROPOSED ACTION

This resolution adopts the Regional Disaster Debris Management Plan as a part of the Regional Solid Waste Management Plan through Ordinance No. 97-673.

BACKGROUND

In 1994, the Regional Emergency Management Group (REMG) was formalized through an inter-governmental agreement. The agreement included a work plan of 21 elements identified as having regional significance in the emergency management process. Debris removal is one of those elements and Metro was tasked with developing a disaster debris removal plan for the REMG region[1].

In November 1995, the Metro Council adopted the revised Regional Solid Waste Management Plan (Solid Waste Plan) (Ordinance 95-624). The Plan includes a goal and five objectives for debris management and directs that recommended practices for debris management be developed. The adopted goal and objectives had been drafted by a task force, including local government solid waste and emergency management staff, the Army Corps of Engineers, DEQ, and Metro, in the spring of 1995.

In January of 1996, the Regional Disaster Debris Management Task Force was formed to develop recommended practices and implementation strategies for the Regional Disaster Debris Management Plan using the adopted Solid Waste Plan disaster management goal and objectives. The Task Force met for nine months and periodically sent their work to the Metro Solid Waste Advisory Committee (SWAC) for review, as well as to the Regional Emergency Management Technical subcommittee (REMTEC)[2], the Army Corps of Engineers (USACE), the Oregon Department of Environmental Quality (DEQ), and the Oregon Office of Emergency Management (OEM).

ORGANIZATION OF THE PLAN

- Introduction
  Part 1

  The first section discusses the purpose of the Debris Plan, background information, and the process used to develop the recommended practices and implementation strategies. Part 1 also includes a list of acronyms and a glossary of words that may be unfamiliar.

- Policies and Summary of Practices
  Part 2

  This section contains the recommended practices required by the Solid Waste Plan and will be included in the body of the Solid Waste Plan document. The recommended practices describe how the adopted disaster debris management goal and objectives will be implemented and assigns roles and responsibilities. Amendments to this section will be made consistent with the established process for amending the Solid Waste Plan.

[1] The REMG region is comprised of Clackamas, Columbia, Multnomah, and Washington counties in Oregon, and Clark County in Washington.
[2] REMTEC is the technical subcommittee of REMG.

Parts 3, 4, and 5 will become an appendix to the Solid Waste Plan. Amendments to these sections may be made through the annual State of the Plan Report process.

- Response Phase Strategies
  Part 3

  This section describes strategies for disaster debris management to be implemented during the response phase, or first 72 hours after a disaster. During this time, the focus is on saving lives, preliminary damage assessment, and clearing roadways. However, this section addresses the many vital communication and coordination functions for disaster debris management that can begin during this time.

- Recovery Phase Strategies
  Part 4

  This section describes strategies for disaster debris management to be implemented during the recovery phase of a disaster. During the recovery phase, debris management activities move to the forefront of importance. This section contains guidelines and strategies designed to help jurisdictions make the process of managing disaster debris more efficient and effective.

- Appendices
  Part 5

  The appendices include a task matrix and timeline for the Debris Plan that outlines key tasks, who is responsible for their completion, and the date the tasks are due. Other appendices include sample flyers, results of studies, and additional pertinent information about disaster debris management. Some appendices are not done and will be added to the Debris Plan as they are completed.

PLAN SUMMARY

The planning effort for the Debris Plan recognizes that Metro has authority for solid waste management planning and disposal in the region and that responsibility includes planning for regional disaster debris management efforts. As directed by the overall goal of the Solid Waste Plan, the Debris Plan is a continuation of the effort to develop and implement a comprehensive Solid Waste Management Plan. The Debris Plan recommends guidelines and strategies for debris management that are environmentally sound, cost-effective, and technologically feasible. The Debris Plan was also developed with the public's needs in mind.

The Debris Plan recognizes the importance of advance planning for disaster debris management. The Plan strives to ensure that the region is prepared to deal with the removal and disposition of disaster debris in a way that is coordinated, efficient, effective, and that causes minimal adverse environmental impact.

The five main principles of the overall Debris Plan are:

1. Manage disaster debris according to the state waste hierarchy:
   Reduce
   Reuse
   Recycle
   Recover
   Landfill
2. Ensure debris management efforts are coordinated and cooperative throughout the region.
3. Use local resources for collection and disposal.
4. Restore normal garbage service as quickly as possible.
5. Ensure accurate and organized debris and expense tracking systems.

The specific recommended practices and implementation strategies in the Debris Plan are directly related to the Solid Waste Plan Disaster Management goal and objectives. Each of the five Solid Waste Plan objectives correlates with one of the five recommended practices. The five disaster management objectives/recommended practices areas are as follows:

1. Availability of current and usable information pertinent to disaster debris management in the region.
2. Emergency response phase guidelines that begin the process of coordinating and mobilizing regional resources and efforts.
3. Recovery phase guidelines that minimize environmental impacts and are consistent with the waste management hierarchy.
4. Implementation of innovative and flexible fiscal and financial arrangements.
5. Development of regional coordination mechanisms, such as intergovernmental and mutual aid agreements.

The implementation strategies are products of the recommended practices and were developed consistent with the goal and objectives.

PLAN ROLES AND RESPONSIBILITIES

There are numerous roles and responsibilities for the government and private sector laid out in the Debris Plan. In general, however, Metro is responsible for coordinating disaster debris management efforts on a regional level, providing for debris disposal and household hazardous waste collection and disposal services, and for providing post-disaster debris information to the public.

Local governments are responsible for all aspects of disaster debris collection. Working with their emergency management and solid waste personnel, as well as with their garbage haulers and with debris disposal and processing facilities, local governments will determine how best to collect and manage the disaster debris in their area. They will also be responsible for providing the Metro Recycling Information Center with current information about their disaster debris management programs.

FINAL DEVELOPMENT OF THE PLAN

There are some elements of the Debris Plan which are required but have not yet been developed. For Metro, these include determining fee collection contingencies for Metro transfer stations, developing a tracking system for disaster debris tons generated in the region, and designating Metro debris removal coordinators. These elements are outlined in Appendix C of the plan, along with timelines when they are known.

FINANCIAL IMPACTS

The pre-disaster responsibilities of Metro, as defined in the Debris Plan, consist of activities such as data gathering, performing studies, assistance to local governments and others, and collection, dissemination, and maintenance of a Regional Disaster Debris Management library. All of these responsibilities may be fulfilled using existing personnel and resources. However, if there are limited staff resources, some of the responsibilities could be fulfilled through small contracts (less than $5,000 each) during various fiscal years (see Exhibit A to this staff report).

Ten thousand dollars was budgeted for FY 1996-97 for a personal services contract to develop damage assessment predictions for the Metro area. The RFP for this contract is expected to be released in late 1996 and the work completed in early 1997. Eight thousand dollars has been requested for FY 1997-96 for two studies to determine regional capacity for recyclables and an inventory of regional disposal, recycling, and processing facilities.

After a disaster, Metro may be asked to take on additional responsibilities, such as acting as the region's information coordinator. Part of this responsibility can be fulfilled using existing personnel. Temporary personnel may be needed, however, if the demand is more than current staff is able to meet. If this occurs, it will most likely be in the form of extra telephone representatives for the Recycling Information Center.

PUBLIC INVOLVEMENT EFFORTS

Because of the technical nature of the subject, public involvement in the development of the Debris Plan has focused on those outside groups with a direct interest in disaster planning and solid waste issues. The following organized groups and agencies were kept apprised of developments in the planning effort:

- U.S. Army Corps of Engineers (USACE)
- Oregon Office of Emergency Management (OEM)
- Oregon Department of Transportation (ODOT)
- Oregon Department of Environmental Quality (DEQ)
- Metro Solid Waste Advisory Committee (SWAC)
- Regional Emergency Management Technical Committee (REMTEC)

A mailing list of interested persons was kept throughout the process and information and work products were sent to those persons as they were available.

A presentation on the Debris Plan was made at the 1996 Association of Oregon Recyclers fall conference.

On October 1, 1996, a full draft of the Debris Plan was sent to the following for review and comment:

- OEM
- REMG
- SWAC members
- Regional Disaster Debris Management Task Force members
- Interested persons list

At that same time, a letter summarizing the Debris Plan process and content, and offering the opportunity to receive a full draft copy, was sent to the following list:

- SWAC mailing list, not including members
- Waste hauler associations
- Neighborhood associations
- Disposal facilities
- Recycling facilities

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Ordinance No. 97-673.

KH:gbc
s:\share\hoss\disaster\staf1213.rpt

Regional Disaster Debris Management Plan

Regional Environmental Management
Waste Reduction & Planning Services
600 NE Grand Ave
Portland, OR 97232-2736
(503) 797-1650
Fax (503) 797-1795

Final Draft
November 1996

METRO

Acknowledgements

The Regional Disaster Debris Management Plan was developed with the cooperation and assistance of many people in the region's solid waste industry and emergency management discipline. The following people were especially helpful, however, in giving their time and expertise to ensure a thorough, thoughtful, and highly usable regional plan.

The following people were members of the Disaster Debris Management Task Force. This task force met monthly or more frequently from January 1996 through September 1996 and were the primary developers of the recommended practices and implementation practices:

Tom Miller, Washington County Haulers
Lee Barrett, City of Portland
Dave Phillips/Rick Winterhalter, Clackamas County
Lynne Storz, Washington County
Loreen Mills, City of Tigard
Lynda Kotta, City of Gresham
Pat Vernon, Department of Environmental Quality
Dean Frasier, Washington County
Mike Gilsdorf, Multnomah County
Jim Quinn, Metro
Kelly Shafer Hossaini, Metro

Others who provided invaluable information, assistance, and feedback are:

Ed Berger, Army Corps of Engineers
Mark Thomas, Oregon Department of Transportation
Gerry Uba, Metro
Metro Solid Waste Advisory Committee (SWAC)
Regional Emergency Management Technical Subcommittee (REMTEC)
Oregon Office of Emergency Management

For questions or comments regarding this plan, call Kelly Shafer Hossaini, Metro, (503) 797-1503.

Contents

Part 5 - Appendicies

Part 1
Introduction

Purpose

The purpose of the Regional Disaster Debris Management Plan (RDDMP) is to ensure that the metropolitan region is prepared to deal with the removal and disposition of debris generated in the event of a natural disaster. This plan specifies goals, objectives, and recommended practices for disaster debris removal and disposal, and describes potential implementation strategies to ensure that disaster debris efforts are coordinated, efficient, effective, and environmentally sound.

The RDDMP is based on five principles:

1. Manage disaster debris according to the state-mandated hierarchy describing solid waste practices:
   - Reduce
   - Reuse
   - Recycle
   - Recover
   - Landfill
2. Ensure debris management efforts are coordinated and cooperative throughout the region.
3. Use local resources for collection and disposal.
4. Restore normal garbage service as quickly as possible.
5. Ensure accurate and organized debris and expense tracking systems.

Background

The RDDMP is a component of the Regional Emergency Management Plan being developed by the Regional Emergency Management Group (REMG). The REMG is comprised of elected officials and emergency managers from the Metro region's cities and counties, representatives from Columbia County, Oregon, and Clark County, Washington, and Metro. The REMG was created by intergovernmental agreement in 1994, and as a part of that agreement a Regional Emergency Management Work Plan was created. The Work Plan identifies 21 elements that have regional relevance to emergency managers, including disaster debris removal.

The REMG consists of two advisory committees: the Regional Emergency Management Policy Advisory Committee (REMPAC) and the Regional Emergency Management Technical Committee (REMTEC).

The RDDMP is also a part of the Regional Solid Waste Management Plan (RSWMP). The RSWMP is the document that gives the metropolitan region, comprised of Washington, Multnomah, and Clackamas counties, direction for meeting solid waste needs through 2005. The RSWMP addresses such issues as regional waste reduction efforts, household hazardous waste management, and solid waste facilities siting and services.

Process

In early 1995, the disaster debris removal subcommittee of REMTEC created a disaster debris management goal and five objectives. The goal and objectives were adopted by the Metro Council and included in the RSWMP and served as the guide for the development of recommended practices and implementation strategies for the RDDMP.

In January 1996 a task force of local government officials and private sector interests was formed. Representatives from REMTEC and Metro's Solid Waste Advisory Committee (SWAC) served on the task force. The purpose of the task force was to use the adopted goal and objectives to develop the recommended practices and implementation strategies for the Plan. The task force met monthly over a nine month period to accomplish this task, and invited other stakeholders to participate in the process as appropriate.

Throughout the process, REMTEC, SWAC, the Metro Council, and Oregon's Office of Emergency Management were kept apprised and asked to comment on drafts of the Task Force's work in progress. A final draft copy of the Plan was also sent for review and comment to neighborhood associations, haulers, and other interested parties.

Although the goal, objectives, recommended practices, and implementation strategies of the Plan have been completed, there are ongoing efforts to complete additional elements of the Plan. Many of the products of these efforts will be added to the Plan as appendices as they are completed. (See the Table of Contents.) Appendix C lists the Plan's requirements, identifies the responsible parties, and the timeline for completion and updating. The matrix also identifies where additional information can be obtained.

Definition of Terms and Acronyms Used in This Plan

Acronyms

DEQ - Oregon Department of Environmental Quality
EPA - U.S. Environmental Protection Agency
FEMA - Federal Emergency Management Agency
LDRC - Local Government Debris Removal Coordinator
MDRC - Metro Debris Removal Coordinator
ODOT - Oregon Department of Transportation
OEM - Oregon Emergency Management
REIC - Regional Information Coordinator
REMG - Regional Emergency Management Group
USACE - U.S. Army Corps of Engineers

Terms

Conditionally exempt generator (CEG) - Any non-household generator of hazardous waste, including businesses, government agencies, nonprofit organizations, etc. that generates less than 220 pounds of hazardous waste per month and complies with other federal and state requirements to maintain CEG status.

Exempt hazardous waste - Any unwanted hazardous products not subject to full regulation under Oregon and federal hazardous waste laws.

Waste management hierarchy - The EPA solid waste management hierarchy: Reduce, Reuse, Recycle, Recover, Landfill.

Putrescibles - Matter that rots or decays.

Putrescible surge - Occurs after a disaster when people throw away food and other putrescible material stored in freezers and refrigerators because electrical power was interrupted for an extended period.

Recovery phase - The period in which a community restores services and rebuilds facilities after a disaster. The duration of this phase may take weeks or years.

Response phase - The first 72 hours after a disaster. During this time, the focus is on saving lives, preliminary damage assessment, and clearing roadways.

Universal Wastes - A new category of hazardous waste, formerly fully regulated, but now subject to less stringent disposal regulations promulgated by the U.S. Environmental Protection Agency (EPA) in May 1995. Includes batteries, mercury-containing thermostats, pesticides, and (in Oregon only) fluorescent light tubes.

Part 2

Policies and Summary of Practices

Disaster Debris Management Goal and Objectives*

RSWMP Goal 14 - Disaster Management

In the event of a major natural disaster such as an earthquake, windstorm, or flood, the regional solid waste system is prepared to quickly restore delivery of normal refuse services and have the capability of removing, reusing, recycling, and disposing of potentially enormous amounts of debris.

Objective 14.1. Provide both accurate and reliable information for use in predicting the consequences of a major disaster and an inventory of resources available for responding to and recovering from disasters.

Objective 14.2. Develop a response phase plan that coordinates emergency debris management services and maximizes public health and safety.

Objective 14.3. Develop a recovery plan that maximizes the amounts of materials recovered and recycled and minimizes potential environmental impacts.

Objective 14.4. Provide for innovative and flexible fiscal and financial arrangements that promote efficient and effective implementation of response and recovery plans.

Objective 14.5. Ensure the coordination and commitment of local, state, and federal governments and the private sector.

*The Disaster Debris Management goal and objectives listed here are part of the overall RSWMP goals and objectives adopted by the Metro Council in November 1995.

Disaster Debris Management - Recommended Practices

Definition of Participant Categories Used in Recommended Practices

Federal Government
- Federal Emergency Management Agency (FEMA)
- U.S. Army Corps of Engineers (USACE)

State Government
- Oregon Emergency Management (OEM)
- Department of Environmental Quality (DEQ)
- Oregon Department of Transportation (ODOT)

Regional Emergency Management Group (REMG)

Metro

Local Government
- County Governments
- City Governments

Waste Haulers
- Licensed and franchised haulers

Private Sector
- Landfill Operators
- Solid Waste Facility Operators
- Association of General Contractors
- Insurance Company Representatives
- Citizens

Recommended Practice 1 - Information

Ensure that current and usable information is available for the planning and implementation of disaster debris removal.

Key Concept and Approach: To properly plan for and implement disaster debris removal activities, certain information must be available to those involved in these activities. It is also important that this information is updated regularly.

Key Elements

a) Inventory of regional solid waste disposal, recycling, and processing facilities. Includes: location, storage, processing, and market capacities, and material specifications.
b) Inventory of regional debris removal resources, e.g., government-owned resources, demolition contractors, garbage haulers, dump truck companies. Includes: equipment and labor capacity.
c) Assess capacity of regional markets to absorb recyclables produced by recovery activities. Include consideration of specifications required.
d) Debris tonnage predictions, by geographical area and type of debris.
e) Inventory of potential temporary debris disposal sites around the region.
f) Prediction of the need for Metro hazardous waste management services.
g) Real-time assessment of system capacity for debris removal.

Roles and Responsibilities

Federal Government

- Assist with the identification and acquisition of temporary debris disposal sites, as requested. (USACE only)
- Assist with debris tonnage predictions. (USACE only)

State Government

- Supply information regarding debris removal resources under its authority. (ODOT only)
- Provide inventory of potential temporary debris disposal sites under its authority. (ODOT only)

- Assist with the prediction of the need for Metro hazardous waste management services, as requested. (DEQ only)

Metro

- Conduct inventory of regional facilities.
- Conduct market capacity assessment.
- Use Metro's disaster management database to predict debris tonnage.
- Assist with the inventory of potential temporary debris disposal sites, as requested.
- Assemble and disseminate disaster debris management information and ensure its periodic updating.
- Obtain prediction of the need for Metro hazardous waste management services.
- Prepare real-time assessment of system capacity for debris removal.

Local Government

- Supply information regarding government-owned and privately-owned debris removal resources in its area.
- Provide inventory of potential temporary debris disposal sites in its area.
- Assist with debris tonnage predictions.
- Assist with preparation of real-time assessment of system capacity for debris removal.

Waste Haulers

- Supply information to government agencies.
- Assist with preparation of real-time assessment of system capacity for debris removal.

Private Sector

- Supply information to government agencies.
- Assist with preparation of real-time assessment of system capacity for debris removal.

Recommended Practice 2 - Emergency Response Phase

The emergency response phase coordinates and mobilizes resources and efforts, with the priority on immediate services that will preserve life, safety, and public health.

Key Concept and Approach: In the initial stages of a disaster, a response strategy should mobilize resources, including executing contracts for debris removal. Priorities should be established for putrescible surge removal and debris removal in critical areas of the community.

Key Elements

Guidelines for a response strategy should:

- Designate Metro and local government debris removal coordinators and establish inter-communication
- Designate Regional Information Coordinator for disaster debris removal efforts
- Describe how the Regional Information Coordinator can retrieve damage assessment information from the debris removal coordinators
- Provide disaster debris prediction, inventory, and assessment information to the Regional Information Coordinator and debris removal coordinators
- Determine the extent of need and the degree to which regional or local response is required using previously developed criteria.
- Mobilize local resources through the execution of contracts with haulers and contractors responsible for initial work
- Execute intergovernmental agreements and mutual aid agreements, as required, e.g., between haulers and/or governments
- Prioritize cleanup areas

Disaster debris removal information/communication system. Include:

- A phone tree with the following communication paths: FEMA, Oregon Emergency Management, Regional Emergency Management Group, media, Metro, local jurisdictions, and solid waste facilities
- Templates for information leaflets and distributional checklist for all written information

- A system for responding to incoming telephone and mail requests for disaster debris information
- Strategies for immediate and long-term information dissemination to the public, contractors, haulers, and facilities
- Dissemination of procedures for personal property recovery

Roles and Responsibilities

Federal Government

- Participate in the development of the information/ communication system.
- Provide information on experiences with other areas of the country.

State Government

- Assist in the preparation of guidelines for the response phase.
- Assist in the design of the disaster debris removal information system.

Metro

- Designate Metro disaster debris removal coordinator.
- Prepare guidelines for the response phase.
- Provide disaster debris prediction, inventory, and assessment information to the Regional Information Coordinator.
- Develop criteria to be used in determining the extent of need and the degree to which regional or local response is required after a disaster.
- Design disaster debris removal information system.

Local Government

- Designate local government debris removal coordinator for each jurisdiction.
- Assist in the preparation of guidelines for the response phase.
- Assist with development of criteria to be used in determining the extent of need and the degree to which regional or local response is required after a disaster.
- Assist in the design of the disaster debris removal information system.

Waste Haulers

- Assist in the preparation of guidelines for the response phase.
- Assist with development of criteria to be used in determining the extent of need and the degree to which regional or local response is required after a disaster.
- Assist in the design of the disaster debris removal information system.

Private Sector

- Assist in the preparation of guidelines for the response phase.
- Assist with development of criteria to be used in determining the extent of need and the degree to which regional or local response is required after a disaster.
- Assist in the design of the disaster debris removal information system.

Recommended Practice 3 - Recovery Phase

Disaster debris management efforts in the recovery phase should minimize environmental impacts and be consistent with the waste management hierarchy. Restoring service by use of the existing local facility, hauler, and contractor infrastructure should also be a priority.

Key Concept and Approach: Debris disposition should be handled in an efficient, orderly, and cost-effective manner that minimizes adverse environmental impacts, respects the waste management hierarchy, and supports overall health and safety efforts. To ensure that equipment, labor, and services are supplied efficiently and cost-effectively, utilization of existing local resources in disaster debris management efforts in accordance with the solid waste hierarchy is a priority.

Key Elements

General guidelines for recovery phase disaster debris management efforts include:

- Guidelines for the use of burning as a disposal option.
- Guidelines to prevent and control illegal dumping.
- Procedures that allow people to recover personal property from damaged structures whenever practicable
- A process for private cleanup efforts - including a permit system that defines the process, time limits, requirements, and restrictions
- Multi-jurisdictional coordination of debris clearing efforts
- Continuation of efforts to mobilize local resources through the execution of contracts with haulers and contractors

Guidelines for recovery phase disaster debris collection, processing, and disposal include:

- Guidelines for removal of debris from residential, commercial, and government properties that are consistent with the waste management hierarchy - salvage, reuse, recycle, recover before landfilling
- Guidelines for the management and operation of temporary disposal sites
- Putrescible surge abatement strategies
- Guidelines to properly collect and process or dispose of exempt hazardous waste

- Resumption of regular garbage and recycling service as quickly as possible
- Contingency procedures for debris removal, including coordination with the Corps of Engineers, and mutual aid agreements between different haulers, processors, and facilities
- Contingency procedures for debris disposal in the event usual options are not available

Roles and Responsibilities

Federal Government

- Assist with development of guidelines for coordination of debris clearing efforts. (USACE only)

State Government

- Develop burning guidelines. (DEQ only)
- Assist with development of guidelines for coordination of debris clearing efforts. (ODOT only)
- Assist with the development of exempt hazardous waste management guidelines. (DEQ only)

Metro

- Develop guidelines to prevent and control illegal dumping.
- Prepare personal property recovery procedures.
- Assist with development of private cleanup effort procedures.
- Develop guidelines for coordination of debris clearing efforts.
- Develop strategies for debris removal that are consistent with the waste management hierarchy.
- Develop guidelines for the management and operation of temporary disposal sites.
- Assist with the creation of putrescible surge abatement strategies.
- Develop exempt hazardous waste management guidelines.
- Development of contingency procedures for debris removal and disposal.
- Obtain agreements with non-system disposal facilities for region's disaster debris in the event such facilities may need to be utilized.

Local Government

- Assist with the development of burning guidelines. Assist with preparation of personal property recovery procedures.
- Develop private cleanup effort process.
- Assist with development of guidelines for coordination of debris clearing efforts.
- Assist with planning for debris removal efforts consistent with the waste management hierarchy.
- Assist with the development of guidelines for the management and operation of temporary disposal sites.
- Prepare strategies for resumption of regular garbage and recycling service.
- Create putrescible surge abatement strategies.
- Assist with the development of exempt hazardous waste strategies.
- Assist with development of contingency procedures for debris removal and disposal.

Waste Haulers

- Assist with preparation of personal property recovery procedures.
- Assist with planning for debris removal efforts consistent with the waste management hierarchy.
- Assist with the development of guidelines for the management and operation of temporary disposal sites.
- Assist with preparation of strategies for resumption of regular garbage and recycling service.
- Assist with putrescible surge abatement strategies.
- Assist with development of contingency procedures for debris removal and disposal.

Private Sector

- Assist with preparation of personal property recovery procedures.
- Assist with planning for debris removal efforts consistent with the waste management hierarchy.
- Assist with preparation of strategies for resumption of regular garbage and recycling service.
- Assist with putrescible surge abatement strategies.
- Assist with development of contingency procedures for debris removal and disposal.

Recommended Practice 4 - Fiscal/Financial Arrangements

Ensure that disaster debris management activities will be properly and efficiently funded through coordination among public agencies and the private sector. Ensure compliance with all applicable federal, state, and local disaster assistance requirements, and proper accounting procedures.

Key Concept and Approach: The communication and coordination of disaster debris management efforts among jurisdictions and pertinent agencies is important to ensure that efforts are not duplicated and recordkeeping is accurate. These and other similar types of problems can strain resources, impair the ability to be reimbursed by FEMA, and potentially jeopardize other sources of funding.

Key Elements

a) Create standard form contracts for facilities, contractors, and haulers that establish schedule of work, contract price and payment methods, obligations, etc.
b) Develop a tracking system for disaster debris management expenses, including collection, hauling, and processing and/or disposal costs incurred.
c) Develop a tracking system for disaster debris tons processed and/or disposed at each facility in the region.
d) Estimate potential Metro and local government financial responsibilities, e.g., employee pay, debris cleanup activities.
e) Develop contingency procedures for fee collection at Metro transfer stations.

Roles and Responsibilities

Federal Government

- Review and comment on fiscal/financial arrangements, as requested. (FEMA only)

State Government

- Review and comment on Disaster Debris Management Plan. (OEM only)

Metro

- Ensure that procedures are developed to meet FEMA requirements for reimbursement.

- Prepare and maintain standard form contracts, as needed.
- Maintain a tracking system for disaster debris management expenses.
- Develop and maintain a tracking system for disposal and processing tonnages associated with disaster debris.
- Provide technical assistance and information to local governments, as requested, to ensure proper, efficient, and accurate tracking of expenses. For example, hauler franchise information, maps, technical information on disaster debris management, etc. may be required.
- Estimate potential financial responsibilities.
- Develop contingency procedures for fee collection at Metro transfer stations.

Local Government

- Prepare and maintain standard form contracts, as needed.
- Ensure proper procedures to meet FEMA reimbursement requirements are developed.
- Maintain a tracking system for disaster debris management expenses.
- Provide information to Metro, as requested, to ensure proper, efficient, and accurate tracking of expenses.
- Estimate potential financial responsibilities.

Waste Haulers

- Assist with the monitoring and evaluation elements by documenting disposal amounts and operating costs associated with disaster debris to meet FEMA requirements.

Private Sector

- Assist with the monitoring and evaluation elements by documenting disposal amounts and operating costs associated with disaster debris to meet FEMA requirements.

Recommended Practice 5 - Coordination of Efforts

Develop intergovernmental agreements, including mutual aid and other agreements, as necessary to ensure the proper coordination of public agencies and the private sector.

Key Concept and Approach: Properly coordinated disaster debris management efforts will be critical to ensure that those efforts are orderly, efficient, and effective.

Key Elements

a) Establish a regional Memorandum of Understanding for solid waste services after a disaster, which reflects an attempt to address intense disaster situations.
b) Review current and future agreements between Metro and the private sector (e.g., transfer stations, landfills, processors) to ensure they address disaster debris issues.
c) Prepare mutual aid agreements among local governments.

Roles and Responsibilities

Federal Government

- Assist Metro and the region in the implementation of the Disaster Debris Management Plan to the extent practicable and as authorized by current federal law.

State Government

- Assist Metro and the region in the implementation of the Disaster Debris Management Plan.

Regional Emergency Management Group

- Appoint Regional Memorandum of Understanding Administrator.
- Administer the Regional Memorandum of Understanding.

Metro

- Develop the Regional Memorandum of Understanding.
- Modify current agreements between Metro and private sector, as applicable, to ensure disaster debris issues are addressed.
- Ensure future agreements between Metro and the private sector address the handling of disaster debris, as applicable.

Local Governments

- Assist in the development of the regional Memorandum of Understanding.
- Prepare intergovernmental mutual aid agreements.

Waste Haulers

- Assist in the development of the regional Memorandum of Understanding.

Private Sector

- Assist in the development of the regional Memorandum of Understanding.
- Assist with the modification of government-private sector agreements, as applicable.

Part 3
Response Phase Strategies

Overview

The following strategies pertain to the response phase of a disaster. The response phase is generally defined as the first 72 hours after a disaster. During this time, the focus is on saving lives, preliminary damage assessment, and clearing roadways so that emergency vehicles can travel to critical facilities, such as hospitals, police stations, fire stations, etc.

Disaster debris management is particularly important in the recovery phase of disaster management, but there are many vital communication and coordination functions that can begin during the response phase. The focus of the response phase strategies is on identifying those functions, their accompanying tasks, and helping emergency responders, including recovery personnel, to mobilize for the recovery phase responsibilities.

Guidelines for a Response Phase Strategy

Pre-Disaster Activities

Multi-Jurisdictional

1. Metro designate a debris removal coordinator (MDRC) to provide liaison with local government debris removal coordinators (LDRC).

2. Local governments each designate a debris removal coordinator (LDRC) to provide liaison with their local government emergency operations center, their public information officer, their Regional Emergency Management Group representative, Metro, waste haulers, and facility operators.

3. LDRCs contact MDRC to:
   - identify themselves and their essential contact information, e.g., phone numbers (including cell, fax, and home) name(s) of alternate(s), etc.
   - identify solid waste contact people in their jurisdiction and the essential contact information, as above.

4. MDRC disseminates LDRC list to all LDRCs.

5. MDRC disseminates all information collected in Recommended Practice 1 to all LDRCs. Updates sent as necessary.

Cities and Counties

1. Develop basic flyers, brochures, and other printed materials for disaster debris disposal, recycling, and processing options for general public. (See "Guidelines for Creating Written Public Information for Disaster Debris Management," page 3-7.) Coordinate with Metro Recycling Information. Plan for translation capability for targeted non-English speaking groups.

2. Develop a system for establishing an informational phone bank in the event Metro Recycling Information Center is disabled by the disaster.

Metro

1. Develop basic flyers, brochures, and other printed materials for disaster debris disposal, recycling, and processing options for general public. (See "Guidelines for Creating Written Public Information for Disaster Debris Management," page 3-7.) Coordinate with local governments. Plan for translation capability for targeted non-English speaking groups.

Post-Disaster Activities

Multi-Jurisdictional

1. Schedule a meeting among all debris removal coordinators, and REMG regional Memorandum of Understanding administrator as soon as possible/practical.

   a. Each debris removal coordinator provides information, as collected under Item 2, page 3-4, and an assessment is made of the following:
      - multi-jurisdictional effect
      - severity
      - affected jurisdictions' ability to respond

   b. Using assessment from "a" above, determine:
      - extent and scope of need for regional effort; and
      - need to execute regional Memorandum of Understanding, or parts thereof;
      - need for a Regional Information Coordinator (REIC)

   c. Appoint REIC, if warranted

2. REIC - appointment and responsibilities

   a. Appointment criteria:
   - MDRC, if possible
   - If not possible, choose another from the designated LDRCs using the following criteria:
      1. Relative damage to LDRC's jurisdiction.
      2. Availability of adequate resources in the jurisdiction.
      3. Adequate staffing to perform required tasks.

b. Responsibilities of REIC:

- Provide round-the-clock access to appropriate information. Suggested: REIC shift of 10 - 12 hours per day, with assistant(s) covering balance.
- Designation of assistant(s) to ensure that at all times at least one person is available. Assistants should have complete and current knowledge of pertinent information.
- Ensuring that information of regional importance is updated, disseminated, and available on an ongoing basis including:
  1. local damage assessments
  2. mutual aid needs
  3. resource availability and needs
  4. any updates to information collected as a part of Recommended Practice 1 requirements
  5. status of regional disposal and recycling facilities
- Coordinate public information efforts, as needed.
- Any additional responsibilities, as needed.

Cities and Counties

1. Prioritize cleanup areas. According to FEMA, the following areas should receive top priority in the following order: (Consult any applicable local government disaster guidelines.)

   a. Debris removal from public roads and streets, i.e., arterial and collector streets, to provide access for vehicles and facilities involved in emergency operations.

   b. Access routes to essential public facilities.
   First priority - hospitals, police and fire stations.
   Second priority - other critical community facilities, e.g., municipal buildings, water treatment plants, sewerage treatment plants, power generation units and substations, airports.

   c. Eliminate debris-related threat to public health and safety.

2. LDRCs gather information, keep current, and give updates to REIC:
   - damage assessment from local emergency operations center
   - possible mutual aid debris removal needs
   - debris removal resources to offer
   - additional important information

3. Determine status of local debris collection resources.

4. Determine status of local debris recycling/disposal facilities, if Metro is disabled. Coordinate with REIC.

5. Establish informational phone bank, if Metro Recycling Information Center is disabled.

6. Prepare to disseminate public information regarding disaster debris management. Coordinate with Metro and local public information personnel. (See "Strategies for Immediate and Long-Term Information Dissemination," page 3-10 and Figure 3.1.)

7. Prepare to disseminate procedures for personal property recovery. (See "Strategies for Immediate and Long-Term Information Dissemination," page 3-10.)

8. Make contact with and execute necessary contracts with haulers and contractors responsible for initial work. Contracts should be consistent with the regional Mutual Aid Agreement, if applicable.

9. Execute intergovernmental and mutual aid agreements, if necessary. Should include contingency agreements for employee sharing when the disaster results in geographic restrictions on employee's ability to report to regular work site. Agreements should be consistent with the regional Memorandum of Understanding, if applicable.

10. Execute disaster/emergency operations procedures particular to the jurisdiction for expense tracking, etc.

11. Prepare to implement strategies for putrescible surge abatement.

Metro

1. Organize and prepare any updates to information, as collected in Recommended Practice 1, for dissemination. Coordinate with REIC.

2. Begin research of disposal/recycling options for disaster-generated materials. Coordinate with REIC.

3. Determine status of disposal/recycling facilities as identified in Recommended Practice 1 inventories. Coordinate with REIC.

4. Determine status of transfer stations and routes to Arlington landfill. Authorize contingencies, if necessary. Coordinate with REIC.

5. Increase Metro Recycling Information Center staffing for increased call load.

6. Prepare to disseminate public information regarding disaster debris management. Coordinate with local governments. (See "Strategies for Immediate and Long-Term Information Dissemination," page 3-10 and Figure 3.1.)

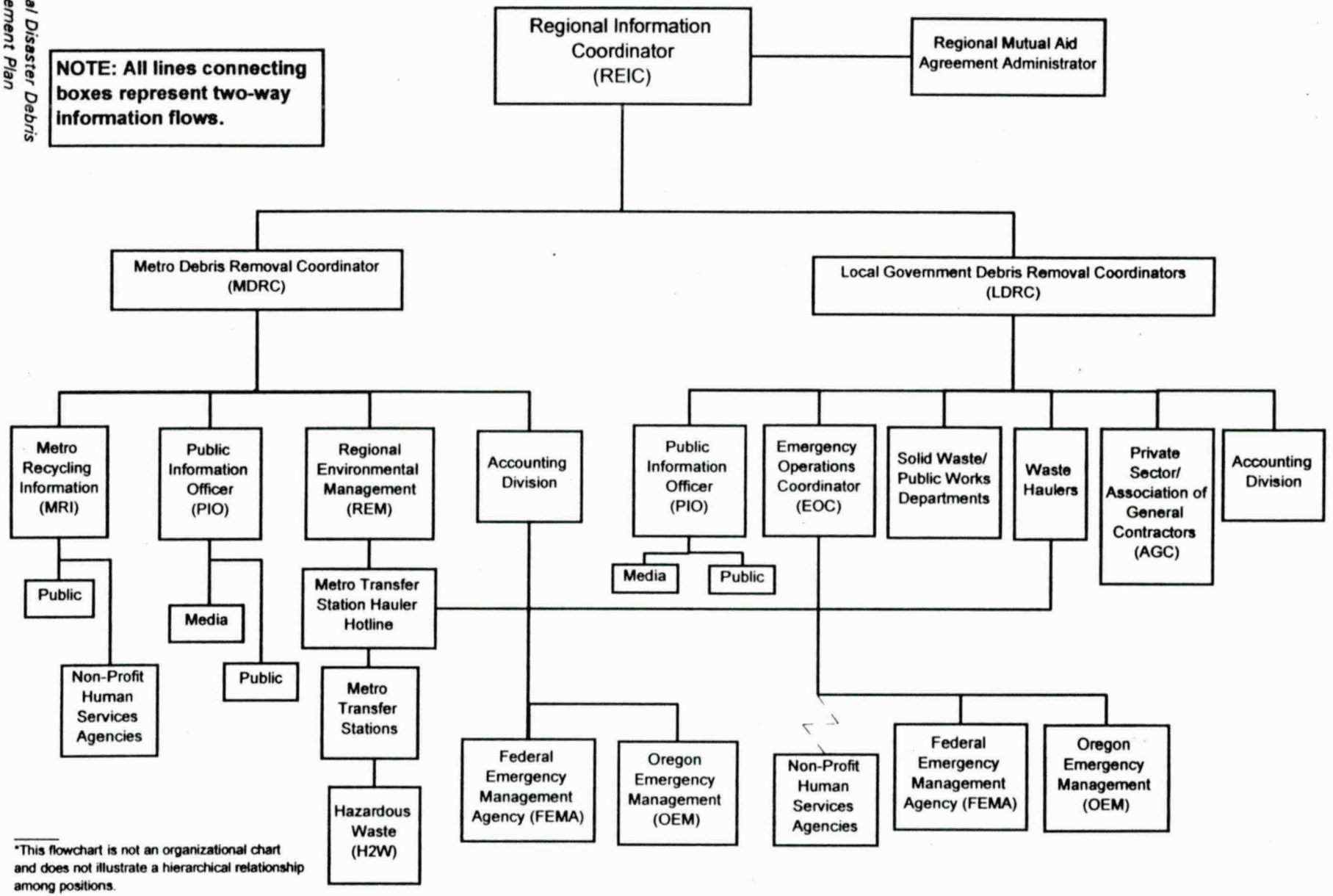
7. Implement accounting tracking system(s) for disaster debris management expenses.

8. Implement tracking system(s) for disaster debris tons processed and/or disposed at each facility in the region.

9. Consider implementation of contingency procedures for fee collection at Metro transfer stations. Coordinate with REIC.

10. Prepare hazardous waste teams to implement exempt hazardous waste disaster management strategies. Coordinate with REIC.

Disaster Debris Management Communication Flowchart*



*This flowchart is not an organizational chart and does not illustrate a hierarchical relationship among positions.

Figure 3-1

Guidelines for Creating Written Public Information for Disaster Debris Management

Confusion is the universal common denominator of disasters. The havoc and destruction caused by a major disaster creates conditions which make confusion inevitable. Basic necessities of life - water, food and shelter - may be difficult or impossible to obtain; utility services may be disrupted or destroyed; streets may be filled with debris, making travel slow and hazardous; and emotions of citizens and officials may be taxed to the breaking point.

Among the many demands created by disaster conditions, government agencies should be prepared to tell the community, when, where, and how garbage collection will resume, as well as provide special instructions for reporting and sorting disaster debris. Preparing templates for flyers and other informational materials in advance will help ensure the usefulness, completeness, and accuracy of these materials after a disaster occurs. Public information experts may need to assemble an emergency kit ahead of time to expedite response in a disaster situation. The supplies and equipment that may be required include:

- A portable computer or typewriter
- Pre-pasted labels for mailings to the affected area and to the media
- Road maps to answer public inquiries about getting to disposal facilities
- Camera/film/flash/batteries to document disaster for future evaluation

Following are important considerations that should be given by local authorities when preparing post-disaster, disaster debris management information:

- Include the following as a part of any written information:
    1. A telephone number the public can call for more information on solid waste concerns. Consider including alternate phone numbers for related relief agencies to avoid tying up solid waste phone lines with calls for other information or services.

2. The jurisdiction's logo and address.

3. A simple map showing locations of recycling and/or disposal facilities.

- Translations, as necessary, for any large populations of non-English speaking people residing within the jurisdiction.
- Providing information through an agency's Internet web page.
- Written information for homeowners' management of residential waste including all of the following, when pertinent:
  1. Options for garbage disposal, including a list/locations of disposal facilities and types of waste accepted.

  2. Options for recycling materials, including a list of recyclable materials, location of recycling facilities and materials that will be accepted.

  3. Proper sorting and preparation of recyclable materials.

  4. Schedule of curbside pickups or sweeps for recyclables, if any.

  5. Schedule of household hazardous waste curbside pickups or sweeps, if any.

Please see page 3-9 for a sample of a public informational flyer, in the form of a door hanger, outlining how the citizens of Los Angeles were asked to manage their earthquake debris. It is imperative that public information personnel are kept updated on the latest emergency planning actions, problems and situations to brief the media and relay information to the public.

Sample

RECICLAMIENTO DE ESCOMBROS DEL TERREMOTO

La ciudad de Los Angeles tiene un programa de reciclamiento de escombros de propiedades particulares.

Por favor, sigue estos pasos sencillos.

Separe estos tipos de materiales y colóquelos en la banqueta:

1. Asfalto, cemento, cemento con hierro, bloques de cemento.
2. Madera y vegetación positivamente relacionada con los escombros. No se va a remover ninguna otra vegetación. Tampoco se puede incluir hiedra, ramas de palma o yuca.
3. Ladrillo colorado.
4. Tierra
5. Todos los demás materiales, tales como techos, paredes, stuco, y otros escombros mixtos.

Coloque sus escombros en montones separados en la banqueta en la vía pública, no sobre propiedad privada.

Para pedir servicio de recojimiento, llame al 1-800-498-CITY.

Si usted tiene una cantidad muy grande de escombros que puede causar problemas con el tráfico vehicular, por favor llámenos al 1-800-498-CITY.

Impreso en papel reciclado.

지진 피해 건물 쓰레기 수거

LA 시는 지진으로 파손된 쓰레기를 수거합니다.
다음의 수칙들과 건물파손 쓰레기를 아래와 같이 분류하여 쌓아주십시오.

1. 아스팔트, 콘크릿, 철근콘크릿, 콘크릿벽돌
2. 목재및 녹색 생나무는 반드시 지진으로 인한 건물파손 쓰레기이어만 수거합니다. 잡초, 아자수, 덩굴나무와 YUCCA는 안됨.
3. 빨간벽돌
4. 흙
5. 그외 지붕자재, 벽자재 그외의 건물파손 잡쓰레기

이상의 분류된 쓰레기들을 개인소유지가 아닌 공공도로변 차도에 쌓아주십시오.

수거요청시 1-800-498-CITY(2489)로 전화하십시오.
그리고 쌓아놓은 쓰레기가 교통에 위험을 끼칠때에도 1-800-498-CITY(2489)로 전화하십시오.

리싸이클용이로 인쇄했음.

RECYCLE EARTHQUAKE DEBRIS

The City of Los Angeles is recycling your earthquake debris. Just follow these easy steps:

Separate your debris as follows, and place it in piles

1. Asphalt, concrete, concrete with metal reinforcement and cinder blocks.
2. Wood and green material positively related to earthquake debris removal. No other vegetation will be picked up. No ivy, palm or yucca.
3. Red clay brick.
4. Dirt.
5. All other materials including roofing, wallboard and other mixed debris.

Place your debris in separated piles at the curb in the public right-of-way, not on private property.

For pickup call 1-800-498-CITY.

If placing your materials at the curb will cause a traffic hazard, please call us at 1-800-498-CITY

Printed on Post-Consumer recycled paper

Strategies for Immediate and Long-Term Information Dissemination

Depending upon the type and severity of the disaster, utility services such as electrical, phone, natural gas, and drinking water may be affected. Radio and television broadcasting, possibly even newspaper production, may be unavailable for a brief time. Prepare for more than one method of communication. Some possible avenues for disseminating information to the public include:

A. Target Group: Public (Citizens)

- Public service announcements on television and radio
- Television news coverage
- Cable television shows
- Newspaper announcements, articles, including forms that residents might use to request services (e.g., demolition services, cleanup services)
- Bulk mailings to households/businesses in targeted areas
- Doorhangers in targeted areas
- Post/leave information at public places - libraries, grocery stores, Red Cross centers, FEMA public outreach offices, government offices, e.g., permit centers, police and fire departments, schools, banks, etc.
- Central phone bank to provide information about how to manage disaster debris

B. Target Group: Waste Haulers

- Solid waste and recycling facilities establish hotline numbers for waste haulers to call and receive the latest information about hours, rates, materials taken, material specifications, etc.
- Local governments develop a means to quickly get information updates to haulers.

Part 4
Recovery Phase Strategies

Overview

The following strategies pertain to the recovery phase of a disaster. The recovery phase is generally defined as the period in which a community restores services and rebuilds after a disaster. The duration of the recovery phase varies depending on the disaster. It may take weeks or it may take years.

During the early part of the recovery phase disaster debris management activities move to the forefront of importance. People are concerned with getting rid of the debris material that resulted from the disaster and getting on with the process of rebuilding. Recovery phase strategies are designed to help jurisdictions make the process of managing disaster debris more efficient and effective, and to give them the information and tools they may need to make better decisions.

Guidelines for the Removal of Debris from Residential, Commercial, and Government Properties

To the greatest extent practicable, debris should be handled according to the solid waste management hierarchy (Reduce, Reuse, Recycle, Recover, Landfill). Local governments should add language to all debris removal contracts (including disaster debris removal) that requires recycling.

Debris likely to be generated after a disaster can be classified in the following five categories:

Category 1 Putrescible Waste
- Food
- Regular Household waste
- Contaminated waste[1]

Category 2 Woody Recyclable Material
- Yard waste
- Wood waste

Category 3 Miscellaneous Dry Waste
- Furniture
- Insulation
- Clothing
- Toys
- Fixtures

Category 4 Non-Woody Recyclable Material
- Scrap metal (including white goods)
- Bricks
- Regularly collected recyclable materials
- Film plastic
- Drywall
- Rubble[2]
- Tires

[1]Contaminated wastes refer to those wastes that do not qualify as hazardous wastes, e.g., asbestos, solvents, etc., but may be contaminated with such things as sewage-contaminated flood waters.
[2]Defined as inert material such as concrete with and without rebar, asphalt, gravel, and bricks.

Category 5 Household Hazardous Waste

Priority for removal and disposition:

First priority	Category 1
	Category 5[3]
Second priority	Category 2
Third priority	Category 3
	Category 4
Fourth priority	Category 5[4]

Proper disposition of materials in waste categories:

a. Transfer Stations	Category 1
	Category 5
b. Limited Purpose Landfills	Category 2
	Category 3
c. Temporary Disposal/ Processing Sites	Category 2
	Category 3
	Category 4
	Category 5
d. Recycling Yards	Category 2
	Category 4
e. Social Service Agencies	Category 3[5]

Cities, counties, and Metro will work with private debris processing and disposal facilities to ensure that debris management is facilitated through extended hours, increased capacities, and reasonable rates.

In order to facilitate smooth and efficient traffic flow, some facilities may be designated as commercial-load dropsites only. Self-haul loads may be directed to particular disposal and processing sites to ensure they do not interfere with the disposal activities of large, commercial vehicles.

Residential Properties: Debris Removal and Disposition

Residents should be educated about the five categories of disaster debris and the proper disposition of each debris

[3]Refers to household hazardous wastes posing an immediate threat.
[4]Refers to household hazardous wastes that are contaminated and not posing any immediate threat.
[5]Materials that are salvageable/usable taker to Goodwill, St. Vincent DePaul, etc.

category, as defined on page 4-2. This should include a clear identification of the materials included in each category, and the specific options for disposition of those materials, including names and locations of processing facilities, locations of temporary disposal/processing sites, etc.

Residents have three options for removal:

1. Self-Haul
2. Construction/Demolition Contractor
3. Garbage Hauler

Residents that self-haul and/or hire contractors to remove their debris are responsible for taking that debris to the appropriate facilities, as defined on page 4-2. Residents should be encouraged to handle their waste in the most environmentally responsible manner practicable.

If residents have a manageable amount of debris and choose to use their garbage hauler for collection and removal debris, they should be advised how to prepare and sort the material, and how to set it out for pickup. Residents should be told to leave materials at the curb for collection in source-separated piles, uncontaminated by other materials. For example, metal should be put in a pile separate from yard debris. Likewise, putrescibles should be kept separate from plastic sheeting and/or rubble.

Residents who choose to have their material collected curbside should also be notified about the general collection priorities and timetable. The following schedule is one example of how residential curbside service may be provided:

Category 1	Weekly
Category 2	Bi-weekly
Category 3	Monthly
Category 4	Monthly
Category 5	Periodic Removal, as needed

Resumption of regular garbage and recycling service is a priority and should occur as quickly as possible in the recovery phase of a disaster.

Putrescibles

Residents should be educated about ensuring that putrescibles are set out in a timely manner, well-sealed in plastic bags, with the plastic bags placed in a container with a tight-fitting lid. This will help to ensure pests do not become a problem.

If conditions permit, residents can be encouraged to do the following to help contain their putrescibles, decrease vector problems, and avoid overloading the solid waste collection system:

- Open freezers and refrigerators as seldom as possible.
- Store putrescibles awaiting collection in a freezer until they are ready to be set out.
- Set out only one extra bag of putrescibles per week for pickup, if possible.

Commercial Properties: Debris Removal and Disposition

Businesses With Small Amounts of Debris

Those businesses with a relatively small amount of damage can have the same debris management options as described above for residential properties.

Businesses With Large Amounts of Debris

Businesses with extensive damage will likely hire contractors to manage debris removal efforts. Both contractors and business owners should be encouraged to dispose of project waste in the most environmentally responsible manner practicable. Local governments should make available written information outlining the five categories of disaster debris and the proper disposition of each debris category, as defined on pages 4-1 and 4-2. This should include a clear identification of the materials included in each category, and the specific options for disposition of those materials, including names and locations of processing facilities, locations of temporary disposal/processing sites, etc.

Resumption of regular garbage and recycling service is a priority and should occur as quickly as possible in the recovery phase of a disaster.

Government Properties: Debris Removal and Disposition

Include in any government contracts with private construction/demolition contractors and with franchised garbage haulers that the category system for disaster debris disposition, as defined on pages 4-1 and 4-2, must be adhered to. Contractors and franchised haulers should be required to salvage, recycle, and recover as much material as is practicable.

To facilitate this recycling in private construction/demolition contract situations, the following can be considered:

- Monetary incentives for recycling versus disposing of loads.
- Requiring a recycling plan.
- Employing field inspectors to monitor contractor's work.
- Performance criteria applied to contractor's work to rate them on their good faith efforts to recycle and their actual recycling rates. A point system can be implemented that gives a contractor points for dedicating trucks for recycling, training their field supervisor's on recycling requirements, and daily sweeps by contractor over their assigned area to scout for concentrations of recyclables. Recycling rates in the form of percentage of loads to recycling facilities can be tabulated through contractor's records and records kept at disposal and recycling facilities.

Contingency Procedures for Debris Removal

In the event that a jurisdiction's debris removal needs outstrip its resources, contingency procedures should be developed in advance. USACE resources will be available in connection with specific FEMA mission assignments in the event the disaster is declared as a major disaster by the President of the United States.[6] Mutual aid agreements between jurisdictions should also be negotiated in advance. (See Recommended Practice 5, Key Element "c," page 2-13.) Local governments, haulers, materials processors and disposal facilities can also enter into mutual aid agreements as they see fit in order to facilitate the efficient and coordinated disposition of disaster debris.

[6]Note: Unless USACE activities are performed under full federal authority, the local government requesting assistance will pay a share of the USACE's costs. If the local government receives an approved mission number for the USACE's work, its share of the cost will be 25% under current regulation. If no state authorization is recorded, the local jurisdiction will be responsible for the total cost of services by the USACE.

Guidelines for Disaster Debris Disposal Contingencies

After a disaster, there is the likelihood that some of the regional disposal facilities will become temporarily or permanently damaged or inoperable. It may be necessary to investigate the use of other facilities outside of the region, or use regional facilities differently.

In general, the following guide should be used for determining disposal options after a disaster in which regional disposal facilities are affected:

Level 1: Redirect waste to existing licensed and/or franchised system facilities that are permitted to accept the type of waste being redirected. It is important for health and safety reasons that facilities permitted and equipped to handle certain kinds and volumes of waste are the first choice for redirection of waste.

> Example - If Metro Central Transfer Station is inoperable, customers who would normally use that facility may be rerouted to Metro South Transfer Station or the Forest Grove Transfer Station.

Level 2: Redirect waste to non-system facilities that are permitted to accept the type of waste being redirected. These facilities should be prioritized for use. Prior to a disaster, Metro should negotiate post-disaster agreements with these non-system facilities.

> Example - If the Forest Grove Transfer Station and Metro Central Transfer Station are both inoperable, customers who would normally use those facilities may be rerouted to the Newberg Transfer Station or to Riverbend Landfill.

Level 3: Redirect putrescible waste (Category 1 waste) to system facilities not permitted to take putrescible waste.

> Example - Materials recovery facilities can be allowed to act as transfer stations and reload putrescible waste.

Guidelines for Multi-jurisdictional Coordination of Debris Clearing Efforts

The following functions may potentially benefit from interagency coordination and communication. The areas as listed are not exhaustive, and individual agencies and jurisdictions should look for opportunities to coordinate with other agencies and jurisdictions whenever possible.

1. Comparison and coordination of contractor/equipment lists.
   - Many local governments and other agencies keep lists of contractors and equipment. Coordinate lists to ensure resources will be used efficiently.
2. Local government temporary debris storage sites.
   - Request site selection assistance from USACE, if necessary.
   - Coordinate placement and usage of sites with neighboring local governments. Some large sites may be able to serve more than one jurisdiction.
3. Identification and control of disaster-generated debris.
   - Use caution when distributing disposal vouchers directly to citizens. Use whatever means practicable to ensure debris is truly disaster-related.
   - Work to develop a better understanding of the disaster debris disposition process with all interest groups, e.g., haulers, contractors, citizens, nonprofit agencies.
   - Develop materials to educate jurisdictions in the identification and disposition of disaster debris.
4. Pre-disaster education of citizens.
   - Ensure citizens understand that they are responsible for their own debris (private vs. public property issues).
   - Provide public education regarding what kinds of debris management programs and options might be expected after a disaster.
   - Ensure an understanding of possible program and policy differences between jurisdictions.
   - Continue educating citizens about preparedness.
5. Establish better communication between local and state governments and other agencies.

At every level, Metro will be responsible for providing a prioritized list of preferred disposal options. Local jurisdictions will direct their haulers based upon these preferred disposal options, as well as local conditions and route availability.

In deciding when to move to a higher level there are two important criteria: 1) the anticipated duration of facility closure; and 2) capacity of operable facilities. If only a couple of facilities are damaged, if they are thought to be operable within a short time, and if operable facilities have the capacity to take the redirected waste, then the system should not move from Level 1 to Level 2.

The decision to move to a higher level should also take into consideration any alternative interim measures that can be utilized. Some examples of short-term alternative interim measures are:

- Delay pickup of waste for customers the local government or hauler deems nonessential, especially non-putrescible waste.
- Store waste in garbage trucks after collection until there is a suitable place to dump.
- Store waste at operable facilities.

If facility closures and capacity shortages are expected to be of a longer duration, then suitable alternative interim measures should be considered, such as:

- Temporarily halting access by cash customers to transfer stations.
- Set up temporary disposal sites for dry waste and reroute waste to those sites. Some may be restricted to commercial haulers only. Others may be open for the public.

Guidelines for Management of Disaster-Generated Exempt Hazardous Waste

Exempt hazardous waste is defined as any unwanted hazardous products that are not subject to full regulation under Oregon and federal hazardous waste laws. This includes hazardous products disposed of by households and CEGs (Conditionally Exempt Generators), and Universal Wastes.

The following guidelines should be followed in the management of disaster-generated exempt hazardous waste.

1. **Utilize the Resources of Metro's Hazardous Waste Program.** Metro is the agency responsible for household hazardous waste management in the region. Metro also conducts a CEG collection program in cooperation with DEQ, and will probably collect Universal Wastes with DEQ approval. Metro's program includes two permanent facilities, located adjacent to Metro's transfer stations, and operates satellite collection events around the region. Disaster-related exempt hazardous waste collection should utilize the program's facilities, equipment, trained staff, and standing disposal contracts. If necessary, program staff can quickly acquire additional vehicles, equipment, and trained workers to mount a larger-scale effort.

2. **Coordinate with other agencies.** In the initial phases of a disaster response, Metro hazardous waste staff should confirm contacts and coordinate efforts with local, state and federal agencies involved with hazardous waste management. This may include fire departments and hazmat teams, DEQ, the US Environmental Protection Agency (EPA), and the Coast Guard, as well as city and county health, water and solid waste agencies. Communication should be maintained throughout the recovery phase with local government debris removal coordinators and the REIC.

3. **Work closely with solid waste debris collection efforts.** Hazardous waste program staff should be involved with the development of solid waste collection options for each disaster. Exempt hazardous waste collection is most practically provided alongside solid waste

collection, although it may not be practical or necessary to provide hazardous waste collection at all solid waste collection points. Data from solid waste debris collection sites should be monitored as the recovery progresses, and adjustments made with consultation from local government debris removal coordinators.

4. **Determine type of services to offer.** A variety of service options may be developed in response to a disaster. Services can range from simply promoting the availability of the permanent facilities, to door-to-door hazardous waste collection. Intermediate options include providing staffing at collection sites near affected areas, and doing "milk runs" as needed to collect materials at approved locations. The most appropriate type of service to provide will vary depending on the nature and severity of the disaster. As recovery needs evolve, it will be prudent to monitor the demand for collection services and adjust as necessary. It is probably safer to mobilize resources to handle the maximum expected demand and adjust downward, rather than to get overwhelmed with waste and have potentially very hazardous situations.

5. **Determine whether waste is exempt.** Whatever collection services are offered, it is important to ensure that all wastes collected are properly classified as exempt. Some sort of screening criteria should provided to the staff receiving wastes, in order to ensure that loads are household, CEG or Universal Waste.

6. **Determine whether waste is disaster-generated.** When hazardous waste collection services are provided in response to a disaster, it is likely that inquiries will be received from residents or businesses that have hazardous waste that is not a result of the disaster. In order to receive disaster relief funds, it is important to ensure that wastes are disaster-related. Publicity about collection services should specify that only disaster-related waste is to be accepted. Prior to mobilizing collection services, collection staff should have a plan for handling non disaster-generated waste that is received in spite of the publicity. This may include referring the generator to other services, or accepting the material and tracking it separately.

7. **Load checking.** After a disaster, it is possible that some generators may improperly throw hazardous wastes into the trash, even if separate hazardous waste services are available. It may be useful to provide enhanced inspection of incoming trash loads at transfer stations, MRFs, and landfills in the region.

8. **Be prepared to collect detailed data from the beginning.** Hazardous waste collection services may be mobilized very quickly in a disaster. It is important for a variety of reasons to track all expenditures, participation levels and waste volumes from the start. Forms and documentation procedures should be developed prior to a disaster. Please see standard form for this purpose, page 4-12.

Debris Collection Site
Daily Hazardous Waste Inventory

Date _____

Site Location _____

Technician Name _____

Waste type	Quantity
Latex paint	
"G-waste" (water-based glues, etc.)	
Oil-based paint and other flammables	
Pesticides, Acids, Bases, and Oxidizers	
Aerosols	
Cleaners	
Oil	
Antifreeze	
Other:	

Total flood-related HHW customers: _____

Total non-flood HHW customers: _____

CEG customers: _____

Guidelines for the Management and Operation of Temporary Disposal Sites

Site Selection Guidelines

1. Pre-selection of sites is encouraged. Site list with pertinent information should be submitted to both Metro and USACE. The USACE will assist with any pre-selection of sites, if requested.

2. Coordinate placement and usage of sites with neighboring local governments. Some large sites may be able to serve more than one jurisdiction.

3. Publicly-owned land should be the first choice.

4. Size - Site should be large enough to accommodate at least four drop boxes for garbage and recycling, as well as an area for exempt hazardous waste drop off. Some large sites should be identified that will accommodate a shredder and/or tub grinder, and storage capacity of non-putrescible material.

5. Access
   - To site - The site should be located along one or more major arterials or have good access both to and from nearby arterials. If possible, identify sites along emergency transportation routes. Regional routes have been identified by the Regional Emergency Management Group, and others can be identified at the local level, as required.
   - Site Ingress and Egress - The site should be large enough and laid out in such a way the flow of vehicles into and out of the site is not hampered.

6. Duration of use - After a major disaster, the site could be used for up to two years, especially if processing activities will be occurring at the site.

7. Terrain - Sites should be as level as possible, with no possible contamination of groundwater, rivers, lakes, streams, etc.

8. Site Amenities
   - Capability of being locked or secured after hours.
   - Paved or at least graveled areas of use.
   - Access to water or a fire hydrant in case of fire.

9. Consider flow of water runoff, including storm water and any leachate that accumulates. Where will it go? Is there a storm sewer nearby? Is it suitable for the runoff?

Post-Site Selection Activities

1. Where private property is involved, execute right-of-entry and any other applicable contracts, e.g., usage agreements, leases, in advance.

2. Photograph, survey, document environmental conditions.

3. Determine what permits, if any, might be needed to use the property as a temporary disposal site after a disaster. Determine what pre-disaster actions can be taken to expedite the process.

4. Develop a scope of work and execute contracts with professional firms for operation of temporary sites.

5. Develop maps showing identified sites and emergency transportation routes. File with the Metro coordinator of the central disaster debris management information system.

Post-Disaster Site Operation

1. Material received at temporary sites should be restricted to only dry waste, if possible.

2. If a site will handle putrescibles as well as dry waste, consider waiting a week or two until after the putrescible surge before attempting to sort and recycle incoming loads. Even at dry-waste-only sites, it may be helpful to delay active recovery/recycling efforts until after the putrescible surge has ended.

3. Consider an area on-site where demolition loads identified by specific addresses can be dumped so home/business owners can look through debris for personal items.
4. Don't allow fire hazards to accumulate, e.g., piles of wood waste and yard debris.

5. Consider leasing a shredder and/or tub grinder for specific sites to help keep wood waste and yard debris piles manageable.

6. Inspect incoming loads for hazardous waste.

7. Have welders/mechanics on-site or on-call to minimize equipment down time.

8. Equipment used to load or move debris material should have hydraulic claw buckets.

9. Set up recycling containers on-site - especially for water jugs, which tend to accumulate in the first few weeks.

10. Hours of operation should be extended, especially in the early stages of debris removal efforts.

11. Adequate signage should be posted explaining what the site is for, what kinds of materials it accepts, and its hours of operation. Be explicit about incoming material being disaster-related only.

12. Employ adequate personnel for traffic control, driver survey, and load assistance.

Guidelines for the Use of Burning as a Disposal Option

General Policies and Guidance

The Oregon state statutes do not give specific guidelines for burning as a method to handle disaster debris. However, burning of disaster debris is discouraged unless absolutely necessary. If allowed, this type of burning would be classified as "commercial" open burning which is prohibited in all areas in or within three miles of the incorporated city limit of all cities with a population of 4,000 or more. State statutes stress that efforts should be made to maintain the quality of the air resources of the state in a condition as free from air pollution as is practicable.

Following are important considerations that should be given by local authorities when determining if burning is an appropriate method to handle debris.

- Backyard Burning. Backyard burning is generally prohibited in much of the region. (See Appendix A - "Open Burning Prohibitions" OAR 340-23-065 through 340-23-080.) If burning of household waste for vector control is considered an option, a number of issues should be considered.
  1. Debris should be segregated in ensure that household hazardous waste, metals, and plastics are not burned.

  2. While there are areas within the region that allow backyard burning, high levels of air pollution, local nuisance conditions, and health impacts on the very young and elderly could result if extensive burning occurs in these areas. Consideration may need to be given to limiting burning in the permitted areas. Allowing burning in unpermitted areas could also result in increased pollution levels and citizen complaints. If considered, it should be employed only as a short term solution.

  3. The permitting agency must assure that fire protection services are available and that water resources required for fire protection are available.

- Controlled Burning. Collecting disaster debris and transporting it to a central location for recycling, disposal or burning allows for more control over fire concerns, and provides the ability to prevent the open burning of hazardous materials. Considerations should include the following.

  1. The level of material in a disaster area would be much greater than would typically be burned, and extensive use of burning in those areas could impact the air quality of the region.

  2. Composition of material is of prime concern. Indiscriminate burning can result in increased levels of contaminants in the air. Be prepared to sort out and properly store hazardous materials. Metals, plastics, and tire should also be removed from the wastestream.

  3. Ash resulting from controlled burns will need to be disposed in a permitted landfill unless testing shows significant amounts of hazardous contaminants. In that case, the ash will need to be disposed of in a permitted hazardous waste facility.

  4. There must be fire fighting services to provide fire protection.

  5. There must be water sources for fire protection.

  6. Control of water runoff from fire control is important.

  7. There should be a means for dry and safe storage for hazardous waste.

  8. There must be adequate security and staff to handle materials.

  9. Nuisance control for smoke and odor must be considered.

- Materials Prohibited from Burning. OAR 340-23-42 (2) prohibits the following materials from being burned: wet garbage, plastic, wire insulation,

automobile parts, asphalt, petroleum products, petroleum treated materials, rubber products, animal remains, or animal or vegetable matter resulting from the handling, preparation, cooking or service of food or of any other material which normally emits dense smoke or noxious odors.

Contact DEQ regarding any exceptions to these materials.

- Statewide Exemptions. According to OAR 340-23-035 (3), the following exceptions apply when fires are set or permitted by any public agency when the fire is set or permitted in the performance of its official duty for the purpose of: weed abatement, prevention or elimination of a fire hazard, or a hazard to public health or safety or instruction of employees in the methods of fire fighting, which in the opinion of the agency is necessary.

Process for Gaining Permission to Burn

Prior to authorizing any disaster burning, local governments should contact their local fire officials and DEQ.

Phone Numbers for Key Contacts

Department of Environmental Quality	
Pollution Complaint/Burning Hotline	(503) 229-5393
State Fire Marshall	(503) 378-3437
Local Fire Jurisdictions or Fire Districts	
West Linn	657-5407
Lake Oswego	635-0378
Gladstone	656-4253
Oak Lodge	653-2432
Gresham	669-2505
Tualatin Valley	526-2469
South Metro	655-8537
Boring	663-8537
Hillsboro	681-6166
Forest Grove	359-3240

Guidelines to Prevent and Control Illegal Dumping

Prevention

1. Provide convenient disposal and recycling alternatives, e.g., temporary debris disposal sites.

2. Educate citizens about their disposal and recycling alternatives. (See "Response Phase Strategies - Strategies for Immediate and Long-Term Information Dissemination," page 3-10.)

3. Educate citizens about their liability for any illegally dumped loads of their debris. Encourage them to use franchised haulers and to self-haul to approved sites. If they choose to use a contractor or independent hauler, encourage them to receive proof of proper disposal before remitting payment.

4. In government contracts, require proof of proper disposal for all loads.

5. In any post-disaster demolition permit system, require proof of proper disposal.

Control

1. After initial health and safety priorities have been addressed after a disaster, begin increasing efforts to monitor potential illegal dumpsites and illegal dumpers. As the recovery effort progresses and construction and demolition efforts begin in earnest, the potential for illegal dumping increases. Efforts aimed at deterring illegal dumping, including enforcement, should increase proportionately, if possible.

Guidelines for Personal Property Recovery

Planning for personal property recovery is best handled through a jurisdiction's building inspector and fire officials. It is recommended, however, that all jurisdictions recognize that disaster victims will want to recover personal property from damaged structures and options should be considered to help them do so. However, health and safety is the first priority when considering the implementation of any of these options.

Process for Private Cleanup Efforts

The process for ensuring safe and satisfactory private cleanup efforts after a disaster can be essentially the same general process used by a jurisdiction for standard demolition efforts. Usually, this entails the issuing of a permit to demolish a structure and includes a number of restrictions and guidelines the permittee must adhere to.

Post-disaster cleanup considerations can differ somewhat from cleanups that are not disaster-related. For example, illegal dumping of debris will likely be a bigger problem after a disaster than in other circumstances because of the volume of debris generated and the number of people affected. The process implemented for proper post-disaster cleanup will need to take into account the special circumstances of disasters.

It is recommended that a permit system be implemented for post-disaster private cleanup efforts. The following elements should be considered for that system:

- Permit Fees. Each jurisdiction should decide whether or not a fee will be charged for post-disaster cleanup permits. If the permits will be free or at a reduced rate from regular demolition permits, determine what pre-disaster steps will need to be taken to accommodate the change. This may include changes to the jurisdictional codes and/or ordinances, or some other kind of council action.

- Cleanup Deadline. A deadline should be set by which the work must be completed. In the event the work is not completed by that deadline, the jurisdiction should reserve the right to assess penalties and/or fines, or clean up the property using public resources and assess the costs to the owner. An authorized building inspector from the jurisdiction should inspect each site before the cleanup work is accepted by the jurisdiction. The deadline set for completion of the cleanup process will depend on a number of factors, including the season in which the disaster occurs, the type of disaster, etc.

- Adherence to all applicable local, state, and federal regulatory guidelines. Permittees should receive information outlining the regulatory guidelines which apply to the cleanup work. Especially important are Occupational Safety and Health Agency (OSHA) requirements and requirements issued by the Fire Marshall's office. These should be made clear to the permittee. It is recommended that the jurisdiction assemble a handout for the permittee and release it with the permit. (See Appendix B for samples of handouts from the City of Oakland.)
- Cleanup requirements and standards. Certain uniform standards must be established to ensure that minimum acceptable levels of cleanup are met because of potential for soil erosion, landslides, falling trees, falling structures, release of raw sewage, the release of asbestos and other contaminants into the air, and the presence of other possible toxic materials. In the event the work completed by the permittee does not meet the established uniform standards, the jurisdiction should reserve the right to assess penalties and/or fines, or clean up the property using public resources and assess the costs to the owner.

  The established uniform standards should include:
  1. removal of all debris from site, including ash, concrete, broken glass, etc.;
  2. filling of all holes; and
  3. final grading of the demolished area.

  The following environmental controls at the site should also be included:
  1. requirement of an erosion control plan;
  2. reduction of dust and contaminants at site, including periodic spraying of debris with water (if necessary);
  3. adherence to noise ordinances;
  4. vector control;
  5. proper closure and reconnection of utilities on-site, including water, gas, electricity, and sanitary and storm sewers; and
  6. controls to keep immediate street area free from dirt and debris from site cleanup activities.

- Debris disposal and recycling. Because of the increased likelihood of illegal dumping after a disaster, a debris disposal and recycling element should be included in the private cleanup permit process. Proof of proper disposal of debris, including hazardous waste, should be a requirement of the permit. The permittee should be educated about the five categories of waste and the proper disposition of each debris category, as defined in the "Guidelines for the Removal of Debris from Residential and Commercial Properties," Page 4-1. Clear identification of the materials should be included in each category. Specific options for disposition of those materials should be provided, including names and locations of processing facilities, locations of temporary disposal/ processing sites, etc.

Part 5
Appendicies

Appendix A

OAR Rules - Open Burning Prohibitions

Open Burning Prohibitions

Baker, Clatsop, Crook, Curry, Deschutes, Gallium, Grant, Hamey, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler Counties '

340-23-055 Open burning prohibitions for the counties of Baker, Clatsop, Crook, Curry, Deschutes, Gallium, Grant, Hamey, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

(2) Agricultural open burning:
- (a) In Baker, Crook, Deschutes, Gallium, Grant, Hamey, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco and Wheeler Counties, agricultural open burning is allowed under this Division subject to OAR 340-23-040(5).
- (b) In Clatsop, Curry, Lincoln and Tillamook Counties agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(3) Commercial open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal, except that, unless authorized pursuant to OAR 340-23-100, all commercial open burning is prohibited in or within three (3) miles of the corporate city limits of the following cities:
- (a) In Baker County, the City of Baker.
- (b) In Clatsop County, the Cities of Astoria and Seaside.
- (c) In Crook County, the City of Prineville,
- (d) In Curry County, the City of Brookings
- (e) In Deschutes County, the Cities of Bend and Redmond,
- (f) In Hood River County, the City of Hood River,
- (g) In Klamath County, the City of Klamath Falls.
- (h) In Lincoln County, the Cities of Lincoln City and Newport.
- (i) In Malheur County, the City of Ontario.
- (j) In Umatilla County, the Cities of Hermiston, Milton-Freewater and Pendleton.
- (k) In Union County, the City of La Grande.
- (1) In Wasco County, the City of The Dalles.

(4) Construction and Demolition open burning is allowed subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, OAR 340-23-040, 340-23-042 and 340-23-043, except that, unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited in or within three (3) miles of the corporate city limits of the following cities:
- (a) In Baker County, the City of Baker,
- (b) In Clatsop County, the City of Astoria.
- (c) In Crook County, the City of Prineville.
- (d) In Curry County, the City of Brookings.
- (e) In Deschutes County, the Cities of Bend and Redmond.
- (f) In Hood River County, the City of Hood River.
- (g) In Klamath County, the City of Klamath Falls.
- (h) In Malheur County, the City of Ontario.
- (i) In Umatilla County, the Cities of Hermiston, Milton-Freewater and Pendleton.
- (j) In Union County, the City of La Grande.
- (k) In Wasco County, the City of The Dalles.

(5) Domestic open burning is allowed subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, and OAR 340-23-040, 340-23-042 and 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; AQ 18-1992, f. & ef. 3-11-92; AQ 1-1993, f. & ef. 3-9-93

Benton, Linn, Marion, Polk, and Yamhill Counties

340-23-060 Open burning prohibitions for Benton, Linn, Marion, Polk, and Yamhill Counties which form a part of the Willamette Valley open burning control area described in OAR 340-23-115:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

(2) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
- (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.
- (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be a owe , without addition of new waste material, to bum after hours and into prohibition condition days.

(3) Commercial open burning is prohibited except as provided in OAR 340-23-100.

(4) Construction and Demolition open burning is allowed outside of special control areas subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, OAR 340-23-040, 340-23-042 and 340-23-043. Unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited within special control areas including the following:

(a) Areas in or within six (6) miles of the corporate city limit of:

(A) in Marion County, the cities of Salem and Keiser.

(B) in Polk County, the city of Salem.

(b) Areas in or within three (3) miles of the corporate city limit of:

(A) In Benton County, the Cities of Albany, Corvallis and Philomath.

(B) In Linn County, the Cities of Albany, Brownsville, Harrisburg, Lebanon, Mill City and Sweet Home.

(C) In Marion County the Cities of Aumsville, Gervais, Hubbard, Jefferson, Mill City, Mt. Angel, Silverton, Stayton, Sublimity, Turner and Woodburn.

(D) In Polk County, the Cities of Dalles Independence, Monmouth and Willamina.

(E) In Yamhill County, the cities of Amity, Carlton, Dayton, Dundee, Lafayette, McMinnville, Newberg, Sheridan and Willamina.

(5) Domestic open burning:

(a) As generally depicted in Figure I of OAR 340-23-115, domestic open burning is prohibited in the special control areas named in section (4) of this rule except that open burning of yard debris is allowed beginning March first and ending June fifteenth inclusive, and beginning October first and ending December fifteenth, inclusive, subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(b) Domestic open burning is allowed outside of special control areas named in section (4) of this rule subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(c) No person shall cause or allow to be initiated maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by the Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.1

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18-1992, f. & cf. 3-11-92, AQ 1-1993, F. & ef. 3-9-93; DEQ 14-1995, f. & ef. 5-25-95

Clackamas County

340-23-065 Open burning prohibitions for Clackamas County:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

(2) Agricultural open burning is allowed subject to OAR 34b-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:

(a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.

(b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to bum after hours and into prohibition condition days.

(3) Commercial open burning is prohibited except as may be provided by OAR 340-23-100.

(4) Construction and Demolition open burning is allowed outside of special control areas subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. Unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited within special control areas including the following:

(a) Areas in or within six (6) miles of the corporate city limits of Gladstone, Happy Valley, Lake Oswego, Milwaukie, Oregon City, Portland, Rivergrove, Tualatin, West Linn and Wilsonville.

(b) Areas in or within three (3) miles of the corporate city limits of Canby, Estacada, Gresham, Molalla and Sandy.

(5) Domestic open burning:

(a) Those areas where domestic burning is always prohibited:

(unless authorized under 340-23-100):

Beginning at the trisection of the Clackamas-Multnomah- Washington County Line; thence east

and then northerly and then east following the Clackamas-Multnomah County Line to the intersection with the northwest comer of Section 27, TIS, R2E; thence south to the. midpoint of the western boundary of Section 3, T2S, R2E; thence on a line east approximately 1/4 of a mile; thence south to the southern boundary of Section 3, T2S, R2E and the comer of Camp Withycombe (Oregon National Guard); thence west approximately 1/4 mile to the midpoint of the southern boundary of Section 3, T2S, R2E; thence on a line south to the Clackamas River and the Metropolitan Service District (METRO) Boundary as defined in Oregon Revised Statutes (ORS) Chapter 268.125; thence following the METRO Boundary first southerly and then westerly to the intersection with the Willamette River, excepting that portion listed in subsection (b)(2); thence northeasterly along the Willamette River to the confluence with the Tualatin River; thence northwesterly along the Tualatin River to the intersection with U.S. Interstate Highway 205 (1-205); thence westerly along 1-205 to the intersection with the Clackamas-Washington County Line; thence north along the Clackamas-Washington County Line to the trisection of the Clackamas-Multnomah-Washington County Line, the point of beginning.

(b) Those areas where domestic open burning is prohibited except for the burning of yard debris between March 1 and June 15, and between October 1 and December 15, subject to OAR 340-23-040, -042, and -043 and the requirements and prohibitions of local jurisdictions and the State Fire Marshall, are the areas that lie within both Clackamas County and the METRO Boundary and are not included in OAR 340-23-065(a). Specifically, those areas are listed as follows:

(A) The area beginning at the point on the Clackamas-Washington County Line where it is intersected by I-205; thence easterly along 1-205 to the intersection with the Tualatin River; thence southeasterly along the Tualatin River to the confluence with the Willamette River; thence southerly along the Willamette River to the intersection with the northern boundary of Section 15, T3S, RIE thence west to the northwest comer of Section 15, T3S, RIE; thence north to the northwest comer of Section 10, T3S, RIE; thence west to the northwest comer of Section 9, T3S, RIE; thence north to the northwest corner of Section 4, T3S, RIE; thence west to the intersection with the Clackamas-Washington County Line; thence north. to the intersection with 1-205, the point of beginning.

(B) The area bounded by Henrici Road on the south; Highway 213 on the west; Beaver Creek Road on the east; and the southern boundary of Clackamas Community College on the north.

(C) The area beginning at the point where the Clackamas-Multnomah County Line intersects the northwest comer of Section 27, TIS, R2E; thence south to the midpoint of the western boundary of Section 3, T2S, R2E; thence on a line east approximately 1/4 of a mile; thence south to the southern boundary of Section 3, T2S, R2E and the comer of Camp Withycombe; thence west 1/4 mile to the midpoint of the southern boundary of Section 3, T2S, R2E; thence on a line south to the Clackamas River; thence easterly along the Clackamas River to the intersection with the western boundary of Section 18, T2S, R3E; thence north to the northwest comer of Section 18, T2S, R3E; thence east to the northwest comer of Section 14, T2S, R3E; thence north to the northwest comer of Section I 1, T2S, R3E; thence east to the intersection with Epperson Road; thence north-northwesterly along Epperson Road to the intersection with the Clackamas-Multnomah County Line at the northern boundary of Section 29, TIS, R2E-, thence west along the county line to the northwest corner of Section 27, T IS, R2E, the point of beginning.

(c) Domestic open burning is allowed in all other areas of Clackamas County subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(d) No person shall cause or allow to be initiated or maintained any domestic open burning other ' than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

(NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.1

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18-1992, f. & ef. 3- i 1-92, AQ I- 1993, f. & ef. 3-9-93; DEQ 14-1995, f. & ef. 5-25-95

Multnomah County

340-23-:070 Open burning prohibitions for Multnomah County:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

(2) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:

(a) Agricultural open burning within the purview of this rule will be prohibited between July

15 and September 15 unless specifically authorized by the Department on a particular day.

(b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste -material, to bum after hours and into prohibition condition days.

(3) Commercial -open burning is prohibited except provided in OAR 340-23-100.

(4) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited west of the Sandy River but is al-lowed east of the Sandy River subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(5) Domestic open burning:

(a) Those areas where open burning is always prohibited (unless authorized by 340-23- 1 00):

(A) The area encompassed by the line beginning at the point where the Multnomah, Clackamas, and Washington County lines meet at a trisection; thence east and then north and then east along the Multnomah-Clackamas County Line to the intersection with SE 172nd Avenue; thence north along SE 172nd Avenue to the intersection with SE Foster Road; thence southeasterly along SE Foster Road to the intersection with Jenne Road; thence northeasterly along Jenne Road to the intersection with SE 17th Avenue; thence north along SE 17th Avenue to the intersection with SE Marie Street; thence east along SE Marie Street to the intersection with SE 182nd Avenue; thence north along SE 182nd Avenue and continuing north as SE 182nd Avenue merges into SE 181st Avenue and then turns into NE 181st Avenue to the intersection with NE Sandy Boulevard; thence easterly along NE Sandy Boulevard to the intersection with NE 185th Drive; thence north along NE 185th Drive to the intersection with Marine Drive; thence continuing on a line due north to the Columbia River and the state line, thence following the Columbia River and the state line to the confluence of the Columbia and Willamette Rivers; thence along the Willamette River to the confluence with the Multnomah Channel and the Portland City Limits; thence following the Portland City Limits generally southerly to the intersection with Section 27, TIN, RIW and the Multnomah-Washington County Line thence following the Multnomah-Washington County Line southwesterly and then south to the trisection of the Multnomah-Clackamas-Washington County Line, the point of beginning.

(B) All areas in northwest Multnomah County that are not contained within a known Fire Protection District.

(C) The Burlington Water District.

(b) Those areas where domestic open burning is prohibited except for the burning of yard debris between March 1 and June 15, and between October 1 and December 15, subject to OAR 340-23-040, -042, and -043 and the requirements and prohibitions of local jurisdictions and the State Fire Marshall, are the areas within Multnomah County that lie west of the Sandy River and are not included in OAR 340-23-070(a).

(c) Domestic open burning is allowed east of the Sandy River subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(d) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

(**NOTE:** This rule is included in the **State** of Oregon Clean Air **Act** Implementation Plan **as** adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. **6-16-84**; AQ 18-1992, **f. & ef.** 3-11-92; AQ 1-1993. **f. & ef.** 3-9-93. DEQ 14-1995, **f. &** ef. 5-25-95

Washington County

340-23-075 Open burning prohibitions for Washington County:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

(2) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:

(a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.

(b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to

bum after hours into prohibition condition days.

(3) Commercial open burning is prohibited except as may be provided by OAR 340-23-100.

(4) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited in all incorporated areas and areas within rural fire protection districts. Construction and demolition open burning is allowed in all other areas subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(5) Domestic open burning:

(a) The area where open burning is always prohibited (unless authorized by 340-23- 1 00): Beginning at the point where U.S. Interstate Highway 205 (1-205) intersects the Washington-Clackamas County Line; thence west along I-205 to the Tualatin City Limits; thence following along the Tualatin City Limits westerly, southerly, westerly and northerly to the intersection with U.S. Highway 99; thence northerly along U.S. Highway 99 to the intersection with the Metropolitan Service District (METRO) Boundary as defined in Oregon Revised Statutes (ORS) Chapter 268.125; thence following the METRO Boundary generally northerly and westerly to the intersection with the Tualatin Valley Highway; thence westerly along the Tualatin Valley Highway to the intersection with the western boundary of Section 1 1, T IS, R2W; thence north to the northwest comer Section 2, TIS, R2W; thence east to the northwest corner of Section 1, TIS, R2W; thence north to the intersection with U.S. Highway 26; thence northwesterly along U.S. Highway 26 to the intersection with Cornelius Pass Road; thence northeasterly along Cornelius Pass Road to the intersection with the northern boundary of Section 23, TIN, R2W; thence east approximately 115 mile along. the northern boundary of Section 23, TIN, R2W to the southernmost point of the Orchard; thence north following the eastern boundary of the Orchard to the intersection with West Union Road; thence southeasterly and then easterly along West Union Road approximately 1.1 miles to a point approximately 1/4 mile west of the eastern boundary of Section 24, TIN, R2W; thence north on a line approximately 1000 feet; thence northeasterly on a line approximately- 1/4 mile to the intersection of NW 185th Avenue and NW Springville Road; thence northeasterly along NW Springville Road approximately 1/4 mile to the one-quarter point of the northern boundary of Section 19, TIN, RIW; thence north approximately 400 feet; thence east to the intersection with NW 185th Avenue; thence north along 185th Avenue approximately 800 feet to the one-quarter point of the western boundary of Section 18, TIN, RIW; thence gradually northeasterly such that the Rock Creek Campus of Portland Community College is within the boundary approximately 1/2 mile to the midpoint of Section 18, TIN, RIW; thence south following the eastern boundary of the Rock Creek Campus of Portland Community college and continuing on a line due south to the intersection with NW Springville Road and the southern boundary of Section 18, TIN, RIW; thence northeasterly along NW Springville Road to the intersection with the Washington-Multnomah County Line; thence following the Washington County line southeasterly and then southerly to the point where the Washington-Clackamas County Line intersects 1-205, the point of beginning.

(b) Those areas where domestic open burning is prohibited except for the burning of yard debris between March I and June 15, and between October I and December 15, subject to OAR 340-23-040, -042, and -043 and the requirements and prohibitions of local jurisdictions and the State Fire Marshall:

(A) All incorporated areas in Washington County not listed in OAR 340-23-075(a) or OAR 340-23-075(c).

(B) All unincorporated areas within known municipal or rural fire districts.

(c) Those areas where domestic burning is allowed, subject to OAR 340-23-040, and -042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshall:

(A) The area enclosed by a line beginning at the point where Highway 26 intersects the western boundary of Section 24, T2N, R4W; thence north to the northwest comer of Section 13, T2N, R4W; thence east to the midpoint of the northern boundary of Section 16, T2N, R3W; thence on a line south to the middle of Section 21, T2N, R3W; thence east to the intersection with the midpoint of the western boundary of Section 22, T2N, R3W; thence south to the southwest comer of Section 22, T2N, R3W; thence continuing south to the northern boundary of Washington County Donation Land Claim (DLC) #44; thence east south and east following the northern boundary of Washington County DLC #44 to- the eastern boundary of Washington County DLC #44; thence southwesterly along the eastern boundary of DLC #44 to the intersection with DLC Plot #76; thence continuing southwesterly along the eastern boundary of DLC #76 to the intersection with the Burlington Northern Railroad Line; thence northwesterly along the Burlington Northern

Railroad Line to the intersection with the southern boundary of Section 32, T2N, R4W; thence west to the southwest corner of Section 36, T2N, R4W; thence north to the point where Highway 26 intersects the western boundary of Section 24, T2N, R4W, the point of beginning.

(B) All unincorporated areas of Washington County outside of municipal or rural fire districts.

(d) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18-1992, f. & ef. 3-11-92; AQ 1-1993, f. & ef. 3-9-93; DEQ 14-1995, f. & ef. 5-25-95

Columbia County

340-23-080 Open burning prohibitions for Columbia County:

(1) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.

(2) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshall.

(3) Commercial open burning is prohibited unless authorized pursuant to OAR 340-23-100.

(4) Construction and demolition open burning:

(a) Unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited in and within three (3) miles of the city limits of Clatskanie, Rainier, St. Helens, Scappoos and Vernonia.

(b) Construction and Demolition open burning is allowed in all other parts of Columbia County subject to OAR 340-23-040, 340-23-042 and. 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(5) Domestic open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; AQ 1-1993, f. & ef. 3-9-93

Lane County

340-23-085 Open burning prohibitions for Lane County. That portion of Lane County east of Range 7 West, Willamette Meridian, forms a part of the Willamette Valley open burning control area as generally described in OAR 340-23-115(5) and depicted in Figure 2:

(1) The miles and regulations of the Lane Regional Air Pollution authority shall apply to all open burning in Lane County provided such rules are no less stringent than the provisions of this Division except that the Lane Regional Air Pollution Authority may not regulate agricultural open burning.

(2) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.

(3) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:

(a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.

(b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to bum after hours and into prohibition condition days. -

(4) Commercial open burning, unless authorized pursuant to OAR 340-23- 1 00, is prohibited in Lane County east of Range 7 West Willamette Meridian and in or within three (3) miles of the city limit of Florence on the coast. Commercial open burning is allowed in the remaining areas of Lane County subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(5) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited within all fire districts and other areas specified in this section but is allowed elsewhere in Lane County subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. Areas where open burning of construction and demolition waste is prohibited include:

(a) Bailey-Spencer RFPD;
(b) Coburg RFPD;
(c) Cottage Grove;
(d) Creswell RFPD;
(e) Crow Valley RFPD;
(f) Dexter RFPD except that portion east of the Willamette Meridian;

(g) Elmira-Noti RFPD except that portion west of the line between Range 6 West and Range 7 West;
(h) Eugene Fire District;
(i) Eugene RFPD No. 1;
0) Goshen RFPD;
(k) Junction City Fire District;
(1) Junction City RFPD;
(m) Lane RFPD No. 1;
(n) Lowell RFPD;
(o) Marcola RFPD;
(p) McKenzie RFPD except that portion east of the Willamette Meridian;
(q) Monroe RFPD that portion within Lane County;
(r) Oakridge RFPD;
(s) Pleasant Hill RFPD;
(t) South Lane RFPD;
(u) Springfield Fire Department and those areas protected by the Springfield Fire Department;
(v) That portion of Western Lane Forest Protection District north of Section I 1, T19S, R4W and bordering the City of Eugene and/or Crow Valley, Eugene #I, Goshen and Creswell RFPDS;
(w) Willakenzie RFPD;
(x) Zumwalt RFPD;
(y) Those unprotected areas which are surrounded by or are bordered on all sides by any of the above listed fire protection districts or by Eastern Lane Forest Protection District.

(6) Domestic open burning:
(a) Domestic open burning outside the fire districts listed in section (5) of this rule is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire -Marshal.
(b) Domestic open burning is prohibited within all fire districts listed in section (5) of this rule -except that open burning of yard debris is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
(c) Refer to Lane Regional Air Pollution Authority open burning rules for specific seasons and hours for domestic open burning.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18-1992, f. & ef. 3-11-92: AQ 1-1993, f. & ef. 3-9-93

Coos, Douglas, Jackson and Josephine Counties

340-23-090 Open burning prohibitions for Coos, Douglas, Jackson and Josephine Counties:

(1) Open burning control areas:
(a) The Coos Bay open burning control area as generally described in OAR 340-23-115 and depicted in Figure 3 is located in Coos County.
(b) The Umpqua Basin open burning control area as generally described in OAR 340-23-115, and depicted in Figure 5, is located in Douglas County.
(c) The Rogue Basin open burning control area as generally described in OAR 340-23-115 and depicted in Figure 4, is located in Jackson and Josephine Counties.

(2) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.

(3) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042, 340-23-043 and 340-23-090(7), and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(4) Commercial open burning is prohibited within the Coos Bay, Umpqua Basin and Rogue Basin open burning. control areas and in or within three (3) miles of the corporate city limits of Coquille and Reedsporf unless authorized pursuant to OAR 340-23-100. Commercial open burning is allowed in all other areas of these counties subject to OAR 340-23-040, 340-23-042 and 340-23-043 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(5) Construction and Demolition open burning is prohibited within the Coos Bay, Umpqua Basin and Rogue Basin open burning control areas unless authorized pursuant to OAR 340-23-10 Construction and Demolition open burning. is allowed in other areas of these counties subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(6) Domestic open burning is allowed subject to OAR 340-23-040, 340-23-042, 340-23-043 and 340-23090(7), and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(7) Upon publication by EPA of notice in the Federal Register that the Medford-Ashland Air Quality Maintenance Area or the Grants Pass Urban Growth Area or the Grants Pass Urban Growth Area has failed to attain the National Ambient Air Quality Standard for PM_{10} by the attainment date required in the Clean Air Act, all open burning is prohibited within the Rogue Basin open burning control area during November, December, January, and February unless authorized pursuant to 340-23-100.

(NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; AQ 3-1992, f. & ef. 11-13-9(AQ 1-1993, f. & ef. 3-9-93

Letter Permits

340-23-100

(1) Open Burning of commercial, industrial, construction or demolition waste on a singly occurring or infrequent basis or the open burning of yard debris which is otherwise prohibited, may be permitted by a letter permit issued by the Department in accordance with this rule and subject to OAR 340-23-040, 340-23-042 and 34023-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. OAR 340-14-025, 340-20-140, and 340-20-150 through 340-20-185 shall not apply.

(2) A letter permit may only be issued on the basis of a written application for disposal of material by burning which has been approved by the Department. Each application for a letter permit shall contain the following items:

(a) The quantity and type of material proposed to be burned;

(b) A listing of all alternative disposal methods and potential costs which have been identified or investigated;

Appendix B

City of Oakland Debris Removal Permit Information

CITY OF OAKLAND
DEBRIS REMOVAL PERMIT INFORMATION
FOR OWNERS AND CONTRACTORS ACTING INDEPENDENTLY OF THE CITY IN THE FIRE-DAMAGED HILL AREA

1. Starting Tuesday, November 19, 1991, owners and their contractors will be required to obtain a DEBRIS REMOVAL PERMIT to clean privately-owned property in the Oakland Hills Fire-damaged Area. This also includes work underway. **There will be no fee for this permit.**

2. DEBRIS REMOVAL PERMITS will be issued from the Community Assistance Center, 5354 Claremont Avenue, Oakland at the Public Works table.

3. Permits will be issued to the property owner or the property owner's representative, such as a contractor, subject to the owner's authorization and permission to enter the subject property.

4. Contractors representing owners must show proof of a Business Tax Certificate that authorizes the company or individual to do business in the City of Oakland.

5. A State contractor's license is <u>not</u> required to do general fire cleanup work.

6. An employer must show proof of Workers' Compensation Certificate.

7. No bonding requirements will be set by the City, but the owner takes responsibility for all work related to such cleanup performed privately and should obtain prudent assurance from a contractor or other workers that **all work will be performed up to City, state, and federal standards** and the amended emergency order number 3.

8. Failure to abide by the debris removal standards may result in the owner or contractor being cited and/or a $1000 penalty being levied: plus withholding of any other cleanup or property development permits to the permittee until all penalties are paid.

9. Debris must be sprayed with water and kept wet to prevent possible health hazards from airborne dust and contaminants. If the particular lot being cleaned does not have an operating water connection, permittee must bring water to the property. Connection to a nearby East Bay Municipal Utility District (EBMUD) hydrant may be accessed by signing out for a hydrant meter from the EBMUD business office at 395 - 11th St. in downtown Oakland (ph: 451-3440). A deposit is required for a 1" or 3" meter and billing is based on a rental and usage fee.

10. Non-hazardous debris may be disposed of properly by calling the Oakland Scavenger Company at 562-1673 for a debris box or by delivering the material safely to the Davis Street Transfer Station, 2615 Davis Street, San Leandro. The Transfer Station is open 7 days a week, except holidays, 8:00 a.m. to 5:00 p.m. Call 638-2303 for information, including information about payment and accounting.

    Contractors are required to certify in writing at the landfill that **"NO HAZARDOUS WASTE, NO HOUSEHOLD HAZARDOUS WASTE, AND NO LIQUIDS ARE CONTAINED IN ANY LOAD OF DEBRIS."**

    Salvageable metals, bricks, and wood should be separated and recycled.

11. All owners or contractors performing debris removal must bring a certificate to the Public Works Permit representative at the Community Assistance Center with a statement from the garbage disposal operator acknowledging receipt of the fire damaged debris, with date, times, amount (truck loads) received.

12. After clean up, covering of the disturbed areas using erosion control blankets or jute netting is required by the City of Oakland. Other erosion control protection measures are the responsibility of the property owner.

13. A City inspector will verify that all work has been completed properly. Owners or contractors can schedule an inspection at the Community Assistance Center or by calling (510) 273-3055 for inspection.

14. In no case can foundations be removed as part of the cleanup without a supplemental permit for foundation removal. Information on this permit can be obtained at the Community Assistance Center.

15. Upon verification that the cleanup was completed, that appropriate soil erosion measures have been implemented, and that the debris has been disposed of properly, the permit work will be deemed complete by the City.

16. If the lot has been cleaned, call (510) 273-3055 for a City inspector to verify that the lot has been cleaned according to the City standards.

17. Individuals with vacant lots and no debris removal needs should call (510) 273-3055 to confirm that the lot is free from debris.

If you have questions on the cleanup requirements or discover any hazardous materials on your property during the debris removal, please call the Cleanup Hotline at (510) 419-6800.

updated 11/20/91

S:\SHARE\HOSS\DISASTER\RECOVERY\OAKLAND.INF

CITY OF OAKLAND
DEBRIS REMOVAL REQUIREMENTS
FOR PARCEL OWNERS AND CONTRACTORS ACTING INDEPENDENTLY

This brief statement of requirements for debris removal is intended for those homeowners who choose to act independently of the City of Oakland cleanup program.

Those individuals or corporations and the contractors in their employ must obtain a Debris Removal Permit. Conditions of the Permit require the following:

1. Meet all regulatory guidelines, including but not limited to:
   a) California Occupational Health and Safety Administration (Cal-OSHA) and all federal OSHA regulations;
   b) state and federal Environmental Protection Agency (Cal-EPA and EPA) requirements and regulations regarding waste materials handling; and
   c) federal Resource Conservation and Recovery Act (RCRA) requirements and regulations regarding disposal of hazardous waste.

2. Remove all debris and ash including broken concrete, loose bricks, and broken glass.

3. Demolish and remove chimneys and unrepairable structures to the foundation level. Foundations, retaining walls, on-grade concrete slabs, and patios must be left in place to help prevent soil erosion and landslides unless deemed unsafe by City engineers. Foundation removal must be in accordance with requirements of the Foundation Removal Permit.

4. Demolish and remove all above-grade building stairways to foundation height.

5. During debris removal and cleanup, all material must be sprayed with water and kept wet to reduce airborne dust and contaminants.

6. Rake clean all dirt areas and sweep improved surfaces.

7. Remove all debris from site and transport it to a legal disposal site willing to accept the debris. Provide satisfactory evidence/receipt to the City that the debris was properly disposed.

8. Maintain existing retaining walls on the property in a safe condition.

9. Protect public facilities and adjacent properties from harm.

10. If debris box is ordered for the debris removal, it must be placed on private property or off the public street travel way.

11. Contact USA Underground Alert to mark all utilities. Property owners should not interfere with such utilities.

12. After cleanup, covering of the disturbed areas using erosion control blankets or jute netting is required by the City of Oakland within five (5) days of debris clearance.

13. Any City installed erosion control measures disturbed by the cleanup must be replaced in kind.

14. Prevent disturbance or destruction of remaining wildlife resources.

15. Protect existing survey monuments and property corners.

16. Comply with all other regulations or laws, of local, state, and federal agencies.

For additional information concerning the cleanup standards, please call 273-3055.
Property owners should contact their insurers prior to contracting with individual contractors.

Updated 11/20/91
S:\SHARE\HOSS\DISASTER\RECOVERY\OAKLAND.INF

CAL-OSHA CONCERNS AND REQUIREMENTS FOR DEBRIS CLEARING OPERATIONS

HOMEOWNERS OR THEIR CONTRACTORS WHO HAVE EMPLOYEES, EVEN IF ONLY TEMPORARY OR PART-TIME, NEED TO KNOW THAT CAL / OSHA HAS JURISDICTION OVER THE SAFETY AND HEALTH ASPECTS OF EMPLOYEE WORKING CONDITIONS. SOME GUIDELINES ARE NOTED BELOW:

- Before work commences, carefully survey the work site to identify possible hazards and to determine safe work procedures. Look for possible toxic materials, unsafe working surfaces and holes which may cause falls and slips, impalement hazards, unstable elevated structures like chimneys and partially damaged buildings, unsupported soil or cave-in hazards, and the capability to keep debris wet during removal.

- For contractors conducting debris clearing operations the Construction Safety Orders apply.

- If destroyed homes were built or modified between 1920 through the late 1970s, they likely contain asbestos in one or more of the following: heating system insulation, transite siding, roofing felts, drywall join compounds, floor tiles and floor tile mastic. Although significant portions of the asbestos containing materials were destroyed by the intense heat, some asbestos remains in the debris.

- Keep debris wet during clearing operations. This keeps asbestos fibers and dust out of the air and out of the breathing zones of workers.

- If you suspect that your home incorporated asbestos containing material and that asbestos containing material still exists in the debris, you can have the suspected material tested by a certified laboratory. If the tests are positive, beyond keeping all the debris wet during removal, you can take the added precaution for yourself and your workers by using an approved, rated dust respirator.

- If unknown or partially destroyed chemicals are encountered, leave the area and call a certified toxic waste handler.

- Know how to summon emergency assistance for workers.

- Provide debris clearing workers with hard hats, safety goggles, approved dust respirators, if necessary, work gloves, preferably canvas and leather, work boots with good ankle protection and protection from protruding nails. Provide drinking water, portable toilets, and hand washing facilities.

- Provide other personal protective equipment, if needed, for specific tools.

- Provide training and orientation to workers in a language they understand concerning work procedures, potential hazards, and correct work procedures and tool use.

- California employers are required to have an Injury and Illness Prevention Program.

- Provide close supervision.

For additional information, contact CAL / OSHA at (510) 568-8602

S:\SHARE\HOSS\DISASTER\RECOVERY\OAKLAND.INF

Appendix C

Regional Disaster Debris Management Plan - Task Matrix and Timeline

Regional Disaster Debris Management Plan
Task Matrix and Timeline

Recommended Practice and Key Elements	Responsible	Assist	Key Dates / Timeline[1]	Location of Information		
				RDDML	RDDMP	Agency
Recommended Practice 1 - Information						
• Inventory of regional solid waste disposal, recycling and processing facilities	M		Completed: TBA Update schedule: Every 2 years	X	X	
• Inventory of regional debris removal resources	ODOT, LG	AC, H, PS	Completed: 1/97 Update schedule: Every 3 years	X	X	X
• Regional market capacity assessment	M		Completed: TBA Update schedule: TBA	X	X	
• Debris tonnage predictions	M	AC, LG	Completed: 3/97 Update schedule: Every 5 years	X	X	
• Inventory of potential temporary debris disposal sites	ODOT, LG	AC, M	Completed: 6/97 Update schedule: Annually	X	X	X
• Prediction of need for Metro hazardous waste services	M	DEQ	Completed: 3/97 Update schedule: Every 5 years	X	X	
• Real-time assessment of system capacity for debris removal	M	LG, H, PS	Completed: 9/96 Update schedule: Every 2 years	X	X	
• Disaster debris management information collection and dissemination	M		Ongoing task	N/A	N/A	N/A

Legend:

F = Federal Emergency Management Agency
AC = U.S. Army Corps of Engineers
ODOT = Oregon Department of Transportation
DEQ = Oregon Department of Environmental Quality
REMG = Regional Emergency Management Group

M = Metro
LG = Local Government
H = Hauler
PS = Private Sector

RDDML - This information or document is available in the Regional Disaster Debris Management Library, Metro
RDDMP - This information or document is available as an appendix to the Regional Disaster Debris Management Plan
Agency - This information or document is on-file at applicable agencies or jurisdictions

[1]The schedule for element updates should be followed barring any circumstances that make it necessary to update, such as a disaster or fundamental change in the solid waste system.

Recommended Practice and Key Elements	Responsible	Assist	Key Dates / Timeline	Location of Information		
				RDDML	RDDMP	Agency
Recommended Practice 2 - Response Phase						
• Response phase strategies development	M	DEQ, ODOT, LG, H, PS	Completed: 10/96 Update schedule: Every 5 years		X	
• Information/communication system guidelines	M	F, AC, DEQ, ODOT, LG, H, PS	Completed: 10/96 Update schedule: Every 5 years		X	
• Designate debris removal coordinators	M, LG		Completed: 1/97 Update schedule: As needed	X		X

Recommended Practice and Key Elements	Responsible	Assist	Key Dates / Timeline	Location of Information		
				RDDML	RDDMP	Agency
Recommended Practice 3 - Recovery Phase						
• Development of guidelines for recovery phase disaster debris management efforts.	DEQ, M, LG	F, AC, ODOT, H, PS	Completed: 10/96 Update schedule: Every 5 years		X	
• Development of guidelines for recovery phase disaster debris collection, processing, and disposal.	M, LG	F, AC, DEQ, ODOT, H, PS	Completed: 10/96 Update schedule: Every 5 years		X	
• Obtain agreements with non-system facilities.	M		Completed: 12/96 Update schedule: Every 2 years			X

Recommended Practice and Key Elements	Responsible	Assist	Key Dates / Timeline	Location of Information		
				RDDML	RDDMP	Agency
Recommended Practice 4 - Fiscal/Financial Arrangements						
• Develop and maintain standard form contracts.	M, LG		Discretionary			X
• Develop and maintain tracking system for disaster debris management expenses.	M, LG		LG - Discretionary M - Completed: 11/96 Update schedule: As needed	X		X
• Develop and maintain tracking system for disaster debris tons.	M		Completed: 3/97 Update schedule: As needed	X		X
• Estimate potential financial responsibilities.	M, LG		LG - Discretionary M - Completed: 9/96 Update schedule: Every 2 years			X
• Develop contingencies for financial arrangements and tipping fees at Metro transfer stations.	M		Completed: TBA Update schedule: Ongoing			X

Recommended Practice and Key Elements	Responsible	Assist	Key Dates / Timeline	Location of Information		
				RDDML	RDDMP	Agency
Recommended Practice 5 - Coordination of Efforts						
• Establish a regional Memorandum of Understanding for solid waste services after a disaster.	M	LG, H, PS	Completed: 3/97 Update schedule: As needed	X	X	X
• Designate administrator for Regional Memorandum of Understanding	REMG		Completed: 12/96 Update Schedule: As needed	X		
• Review of Metro agreements with private sector.	M		Ongoing and as needed			X
• Prepare mutual aid agreements between local governments.	LG		Discretionary			X

S:\SHARE\HOSS\DISASTER\TASKTIME.MTX

Appendix D

Inventory of Regional Solid Waste Disposal, Recycling, and Processing Facilities*

*To be added when completed

Appendix E

Inventory of Regional Debris Removal Resources*

*To be added when completed

Appendix F

Regional Recycling Market Capacity Assessment*

*To be added when completed

Appendix G
Debris Tonnage Predictions*

*To be added when completed

Appendix H

Inventory of Potential Temporary Debris Storage Sites*

*To be added when completed

Appendix I

Prediction of Need for Metro Hazardous Waste Services*

*To be added when completed

Appendix J

Waste Storage and Handling Capacity Analysis for Disaster Debris Management Planning

Waste Storage and Handling Capacity Analysis for Disaster Debris Management Planning

Dawit Solomon, Associate Engineer
Metro
July 29, 1996

Objective

The main objective of this analysis is to evaluate the capability of Metro South Station (MSS), Metro Central Station (MCS), and the Forest Grove Transfer Station (FGS) to store waste on site. The analysis evaluates the available floor space and storage space that can be used on site, including all available drop boxes and transfer trailers. In addition, the haulers' capacity is computed.

Two scenarios are used:

Scenario-I: The facility is unable to transport waste out from the transfer station due to a disaster, such as a fire, explosion, earthquake, or flood. Waste is still accepted from haulers and the compactors are functional and in operation.

Scenario-II: The facility is unable to transport waste outside the transfer station due to a disaster, such as a fire, explosion, earthquake, or flood. Waste is still accepted from haulers. All the compactors are down due to power failure or some other major equipment damage.

Assumptions

In order to quantify the evaluation methodology, several assumptions were made to provide a more definitive problem statement and analysis approach. The following assumptions were made:

- Jack Gray trailers are available for storage whenever the compactors are in operation (50 trailers with 25 of the trailers full at any given time)
- There is no yard debris stored
- There are no recycled materials being accepted
- All recyclable material drop boxes at the MSS and MCS are emptied to provide storage space
- All conditions are regular operating conditions, i.e., no increase in hours open or personnel, etc.
- All incoming waste density is 300 lbs/Cu. Yd. (Non-compacted waste density)
- Incoming waste is at a rate comparable to FY 95-96 rates and no waste is going out of the facilities
- Self-haulers are not allowed to use the facilities

The following assumptions were made in the analysis of each facility's capacity:

Metro South Transfer Station:

- Pit area available for use: 40 ft. x 110 ft.
- Height of the maximum waste pile above the pit rim: 14 ft.
- Public side of the pit is used as stock piling area: 2/3 of the area with 14 ft high piles.
- Commercial side of the pit is used to stock pile waste: 1/2 of the area at 14 ft high piles.

Metro Central Transfer Station:

- Storage piles are 15 ft high since there is equipment available that allows the greater height.
- Wood lines and all tipping floors (Bay-1, Bay-2, Bay-3) are all used as storage areas.

Forest Grove Transfer Station:

- All transfer trucks and drop boxes are used for storage.
- Each transfer trailer has a 22 tons capacity.

Jack Gray Trucking:

- Half the transfer trailers owned by Jack Gray are used as storage units (100 trailers with 50 trailers at each transfer station with 25 of the trailers full at any given time).
- Each transfer trailers capacity is 29 tons.

Haulers:

- All commercial trucks that deliver waste to Metro facilities are used as storage.
- Data made available from Jeff Stone is definitive.
- Each of Metro registered hauler's vehicle capacity is the maximum load delivered on a single visit.
- Total haulers' capacity is equivalent to the total sum of the maximum load of each commercial vehicle that utilizes MSS and MCS.
- During a disaster, haulers are diverted from the transfer stations that are full to the next closest transfer stations until all the transfer stations are full, at which point haulers collect waste and store the waste in their trucks.

Approach

In the evaluation of the waste storage and handling capability, two stages were noted where waste can be stored.

A) Transfer Stations: Pit, tipping floor, transfer trailers, and drop boxes

Waste can be stored inside the transfer stations (MSS, MCS, FGS). Each facility has a different layout and waste processing methodology. Storage capacity was determined at each facility by determining the available space for storage. This involved measuring floor areas and average waste pile height, inventorying available drop boxes and available transfer trailers, and asking facility operators for information on average drop box tonnage, available storage space, and maximum trailer capacity - specifically in regard to FGS.

B) Haulers: Trucks, transfer trailers, flat beds, drop boxes, and loaders

Metro maintains a record of commercial hauler vehicle trips, including the day and time the vehicle utilized one of Metros facilities and the tonnage disposed at the sites. The data gathered during FY 95-96 was used for this analysis since it reflects the latest information. The capacity of each individual recorded vehicle is determined by the maximum load that specific vehicle delivered at any one time to one of Metro's facilities during FY 95-96. As a result, hauler capacity is determined by adding the maximum load each specific vehicle delivered to Metro.

Results

Utilizing the parameters set forth in the assumptions and following the analysis approach indicated above, the following results were obtained. Within the waste stream there is a capability of storing 12,500 -14,000 tons of waste, depending on whether the compactors are operational or not.

Haulers: There is a realized storage capacity of 2 day's of waste in the trucks and trailers of haulers. Individual hauler capacity will vary as some hauling companies have few trucks, translating to a relatively small storage capability, while larger companies have a greater number of trucks and trailers available. Larger hauling companies may also have extra trucks that can be mobilized during a disaster.

Haulers Capacity: Includes Metro South & Metro Central				
Site	Storage Means	Tonnage	Avg. Daily Waste Delivered	Equiv. Amt. in Days
Haulers Capacity	Trailers/ Hauler Trucks	3,314	1,641	2.0

Scenario-I: Under the working conditions set forth in Scenario-I, the operating period of the waste system would be 6 days of normal weekday delivery of waste. The collection and acceptance of waste would result in FGS reaching its capacity in 1-1/3 day, MSS reaching its capacity in 2-3/4 days and MCS reaching its capacity in 4 days of operation.

Scenario-I: Haulers are diverted from other transfer stations & compactors are functional				
Site	Storage Means	Tonnage	Avg. Daily Waste Delivered	Equiv. Amt. in Days
Forest Grove	Tipping Floor Space	125	204	1.3
	Trailers/Boxes	132	0	
Metro South	Pit + Floor Space	2,497	897	2.75
	Drop Boxes 20 yd. +	270	362	
Jack Grey	Transfer Trailers	870		
Metro Central	Tipping Floor Space	6,077	907	4
	Drop Boxes 20 yd. +	100	385	
Jack Grey	Transfer Trailers	870		
Total		10,900	2,800	N/A

Scenario-II: Under the working conditions set forth in Scenario-II, the operating period of the waste system would be 5-1/3 days of normal weekday collection of garbage when the compactors are operational and functioning. The collection and acceptance of waste would result in the FGS reaching its capacity in 1-1/3 days, MSS reaching its capacity in 2 days, and MCS reaching its capacity in 3-1/3 days of operation.

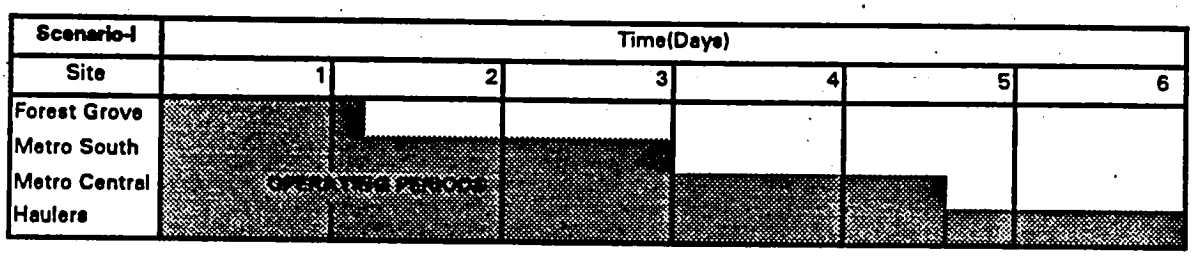
Scenario-II: Haulers are diverted from other transfer stations & compactors are down				
Site	Storage Means	Tonnage	Avg. Daily Waste Delivered	Equiv. Amt. in Days
Forest Grove	Tipping Floor Space	125	204	1.3
	Trailers/Boxes	132	0	
Metro South	Pit + Floor Space	2,497	897	2
	Drop Boxes 20 yd. +	270	362	
Jack Grey	Transfer Trailers	0		
Metro Central	Tipping Floor Space	6,077	907	3.3
	Drop Boxes 20 yd. +	100	385	
Jack Grey	Transfer Trailers	0		
Total		9,200	2,800	N/A

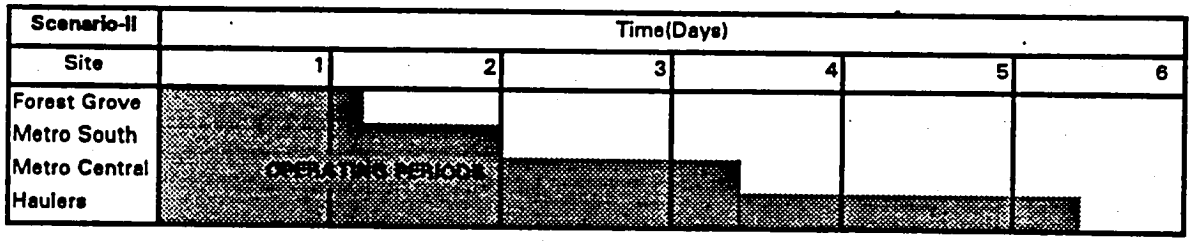
Conclusion

In conclusion, there are certain factors that should be noted but were not taken into consideration in this analysis due to the complexity of their interaction with the system's capacity. They are as follows:

- Compacted waste density - all stock-piled waste was assumed as loose packed waste
- Additional compaction capability of haulers
- Operational change implementations - operation changes whereby the incoming waste would be compacted and then stock-piled
- Neglected floor space - areas that would normally be occupied by disposed appliances, scrap metal, etc.
- Extra trucks and drop boxes owned by hauler (Over 90% of the hauler drop boxes have been taken into consideration in this analysis.)

Consideration of these factors will increase the storage capacity of the waste system.





The effect of the compactors being incapacitated reduces the overall operating period during a disaster down by 1 whole day.

S:\SHARE\HOSS\DISASTER\APPENDIC\CAPACITY.DOC

Appendix K

Documenting and Tracking Disaster Debris

Documenting and Tracking Disaster Debris

Vouchers

Tracking disaster debris tonnages and controlling fraud are two concerns after a disaster. One way to help accomplish both is through the implementation of a voucher system. A voucher is a certificate issued by a jurisdiction and given to waste haulers, contractors, and/or citizens (if desired) so that they can deliver disaster-related material to authorized facilities and have that material charged to the jurisdiction's pre-authorized disaster debris account at those facilities. After a disaster, jurisdictions should contact those facilities they wish to authorize for use and make arrangements for a special disaster account to be established for that jurisdiction. (See Attachment K-1 for a sample copy of a voucher)

To help control voucher fraud, the following should be considered:

- Each voucher should be pre-numbered with a unique number and a record made of who each voucher was issued to.
- Vouchers should have the jurisdiction name and logo printed on them.
- Each facility authorized to receive a jurisdiction's vouchers should receive a sample copy of the voucher.
- Measures should be taken to ensure that any pre-made vouchers are kept in a secure place.

Disaster Debris Tickets

Vouchers may not be suitable for all types of disaster debris tracking. If temporary disposal sites are established for citizens, for example, vouchers would not be necessary nor particularly useful. A better choice would be a system whereby a disaster debris ticket with information such as driver name, address from which the load came, and type of waste is filled out for each load brought to the temporary disposal site. A space should also be provided for the driver's signature verifying the load as disaster debris. (See Attachment K-2 for a sample disaster debris ticket)

Disaster debris tickets can also be used at facilities to record information about incoming loads and verify them as disaster debris. For example, after the February 1996 flood that occurred in northwestern Oregon, the two Metro-owned transfer stations offered a special disposal rate to customers self-hauling their own flood debris to the stations. In order to keep a record of the individual loads brought in, debris tickets were filled out for each load.

Documentation and Tracking of Disaster Debris After the February 1996 Northwestern Oregon Flood

1. Temporary Disposal Sites

After the flood, some jurisdictions chose to designate temporary disposal sites and provide free disposal of flood debris to their residents. At each temporary disposal site, a flood debris ticket was filled out for each vehicle that brought debris. The ticket included information about where the load came from, who brought it in, and what it contained, as well as the signature of the driver verifying that the load was flood debris. Each ticket also identified the drop box at the disposal site that the load was dumped into.

Drop boxes from temporary disposal sites were brought to disposal facilities with an official voucher verifying that the contents were flood debris and that the load could be debited to the corresponding jurisdiction's special flood debris account. Vouchers were stapled to their applicable load receipts. Each jurisdiction with a flood debris account was responsible for applying to FEMA for reimbursement of the charges. At some facilities, arrangements were made to delay payment on the accounts until FEMA reimbursement.

Local governments were given record sheets for drop box drivers to record flood debris loads they hauled that would be charged to the jurisdiction's flood debris account. (See Attachment K-3)

2. Other Local Government-Sponsored Services

Some jurisdictions paid for drop box loads of flood debris taken directly from a resident's house to a disposal facility. This service was pre-arranged and a voucher given to the drop box driver for disposal. Information about these loads was obtained by the local government.

3. Self-Haul Loads to Metro Transfer Stations

Self-haul customers with flood debris from their residences or small businesses were allowed to dump at the Metro transfer stations for a reduced fee. (Five dollars for a car or pick-up load and ten dollars with a trailer.) Flood debris tickets were filled out by the scalehouse technicians for each load that came in. The information gathered was essentially the same as that for the temporary disposal sites. Flood debris tickets were attached to the applicable load receipt and charges debited to a special flood account.

4. Flood Debris Loads Dumped at Non-Metro-Owned Facilities

For flexibility and convenience, some local governments made arrangements for flood debris disposal with non-Metro-owned facilities. Some of those arrangements were similar to those that were offered by the Metro transfer stations. Other arrangements were at the discretion of the local government and the disposal facility.

5. Hazardous Waste at Temporary Disposal Sites

Drop off for flood-related household hazardous waste was available at the temporary disposal sites. The hazardous waste technicians kept a daily inventory of material brought to each site each day. As some residents brought non-flood-related household hazardous waste to the sites, hazardous waste technicians recorded whether the material was flood-related or non-flood-related when they were at sites to receive the material. When the material was simply dropped off with no technician to receive it, it was not possible to tell what was flood-related and what was not.

6. Hazardous Waste Received at the Metro Transfer Stations

Residents bringing flood debris to the transfer stations were able to use the Metro hazardous waste facilities to drop off their household hazardous waste. Hazardous waste technicians were not able to keep flood-related hazardous waste separate from the non-flood-related hazardous waste on any given day. However, the flood debris tickets filled out by the scalehouse technicians were used to determine how many loads of flood-related household hazardous waste came in each day. This information was then used to estimate how much of the hazardous waste received at the facility each day was flood related.

FLOOD DEBRIS VOUCHER

Voucher #: VOID

Truck #: _____

METRO

/er: Present this voucher to a Scalehouse Technician upon arrival at a Metro Transfer Station.

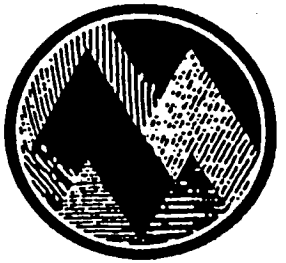
ılehouse Technician: Attach voucher to load receipt.

Attachment K-1

FLOOD DEBRIS VOUCHER

Voucher #: VOID

Truck #: _____



METRO

Driver: Present this voucher to a Scalehouse Technician upon arrival at a Metro Transfer Station.

Scalehouse Technician: Attach voucher to load receipt.

LOOD DEBRIS VOUCHER

Voucher #: VOID

Truck #: _____

METRO

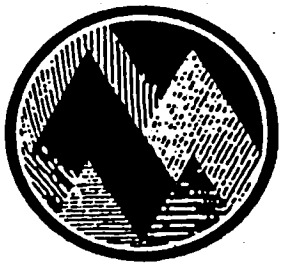
Driver: Present this voucher to a Scalehouse Technician upon arrival at a Metro Transfer Station.

Scalehouse Technician: Attach voucher to load receipt.

FLOOD DEBRIS VOUCHER

Voucher #: VOID

Truck #: _____



METRO

Driver: Present this voucher to a Scalehouse Technician upon arrival at a Metro Transfer Station.

Scalehouse Technician: Attach voucher to load receipt.

Attachment K-2

(Logo here)

FLOOD DEBRIS TICKET

Information Questionnaire

Name:_____

Home Address:_____ Zip Code:_____

Load Origin:_____ Zip Code:_____

If business waste, business address:_____

Type of Waste (check all that apply):

___ Household clean-out

___ Small business clean-out

___ Household hazardous waste

Type of Vehicle (check all that apply):

_____ Car

_____ Pick-up

_____ Other

Hauler:_____

Drop Box #:_____

Truck #:_____

Drop-site Location:_____

Date:_____ Time:_____

I hereby testify that the material I have brought to this disposal site is flood-related.

Driver Signature:_____

Jurisdiction Authorization:_____
Signature

_____
Print Name

(Logo here)

FLOOD DEBRIS TICKET

Information Questionnaire

Name:_____

Home Address:_____ Zip Code:_____

Load Origin:_____ Zip Code:_____

If business waste, business address:_____

Type of Waste (check all that apply):

_____ Household clean-out

_____ Small business clean-out

_____ Household hazardous waste

Type of Vehicle (check all that apply):

_____ Car

_____ Pick-up

_____ Other

Hauler:_____

Drop Box #:_____

Truck #:_____

Drop-site Location:_____

Date:_____ Time:_____

I hereby testify that the material I have brought to this disposal site is flood-related.

Driver Signature:_____

Jurisdiction Authorization:_____
Signature

_____
Print Name

TEMPORARY FLOOD DEBRIS DROP SITE

Drop Box Hauler Record

Hauling Co.:_____ Truck #:_____

Driver Name:_____ Drop-site Location:_____

ATTACH ALL CORRESPONDING DISPOSAL/PROCESSING SITE RECEIPTS TO THIS FORM

Date	Drop Box #	C.Y. of Box	Jurisdiction Auth. Signature	Time	Receipt Control #

Attachment K-3

Appendix L

Memorandum of Understanding for Solid Waste Services After a Disaster*

*To be added when completed