Cover Photograph by David Blitzer - Midland Beach, Staten Island, New York
November, 2012 in the aftermath of Superstorm Sandy.
“What everyone involved agrees on is that the cleanup must move as quickly as possible, to help communities begin the rebuilding process and to prevent health problems that might emerge if waterlogged waste were left to rot.”

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Introduction

The City of Portland is vulnerable to disasters and emergencies potentially generating large amounts of debris. The purpose of this plan is to provide a framework for the City of Portland to clear roadways and remove debris, in order to open transportation routes and reduce threats to human health and safety and harm to the environment.

The City recognizes there will be a need for regional coordination following a disaster that generates large amounts of debris. A regional disaster debris framework is currently being developed by the Portland Metropolitan Region (formerly the Portland Urban Area [PUA]) Regional Disaster Preparedness Organization (RDPO) in coordination with local, state, federal and private industry partners. The framework will identify specific jurisdictional roles, responsibilities and authorities; thresholds that would trigger regional coordination and response; and determine locations for and management of Temporary Debris Storage and Reduction Sites (TDSRS).

The objectives of this plan are to:

- **Support regional efforts** to plan for debris management.
- **Establish an organizational structure** to coordinate debris collection for a large event within the City of Portland.
- Identify **an efficient approach to street operations** and management of debris removal from public property and public rights-of-way (ROWs), and from private property where debris poses immediate threats to public health and safety.
- **Model debris volumes and determine need and capabilities** for debris clearance, removal and disposal.
- Describe the **types of contracts and contractors** needed to assist in debris management.
- Develop templates for **initial public messages** about how to properly dispose of debris.
- Ensure that Federal Emergency Management Agency (FEMA) Public Assistance Program (PA) eligibility requirements, local and state health and safety procedures and other required
regulatory permits and licenses are followed during debris removal.

The City anticipates that debris clearance and removal priorities will fall into three phases.

- **The response phase**, during and immediately after an event, will focus on immediate life safety and the clearing emergency routes and roadways to critical facilities and any neighborhoods that have become isolated by debris-blocked roads.

- **The removal phase**, addressing major debris removal and disposal operations, involves moving debris to temporary storage sites for volume reduction, or to landfills for permanent disposal.

- **The recovery phase** deals with the disposition of private property such as automobiles and condemned structures, and the closure and restoration of TDSRS. Completion of this phase may take more than one year.

### Situation

- Portland City bureaus have established procedures for disposing of snow on streets, fallen trees in parks, and similar debris. These debris management procedures can be scaled to the size of an event, including large snowstorms and windstorms.

- A very large event, such as a major earthquake, could not be addressed only by scaling-up the City’s existing debris operations. This plan is intended for those events.

- The planning scenario for debris management planning is a 7.1 earthquake along the Portland Hills fault zone as outlined in the *Threat and Hazard Identification and Risk Assessment - Portland Urban Area [PUA] November 2012 (THIRA)* developed by the RDPO. Ground shaking for approximately 25 seconds will cause considerable damage to ordinary buildings and destroy vulnerable structures, such as unreinforced masonry buildings. Damages will include destabilization and collapse of buildings, transportation infrastructure, and underground utilities.

- An incident like the planning scenario could occur at any time.

- The incident will impact the entire Portland Metropolitan Region resulting in the need for regional, state and federal collaboration and coordination for public messaging, debris removal, resource management, and final debris disposition.
Disaster debris, based on the 1999 Portland State University Study *Debris Quantity Analysis for a Far-Field Seismic Event in Portland Metropolitan Region*, are estimated to be as follows:

<table>
<thead>
<tr>
<th>Quadrant of the City</th>
<th>Weight (tons)</th>
<th>Volume² (cubic yards)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>158,657</td>
<td>317,314</td>
</tr>
<tr>
<td>Northeast</td>
<td>300,612</td>
<td>601,224</td>
</tr>
<tr>
<td>Northwest</td>
<td>475,280</td>
<td>950,560</td>
</tr>
<tr>
<td>Southeast</td>
<td>289,574</td>
<td>579,148</td>
</tr>
<tr>
<td>Southwest</td>
<td>811,842</td>
<td>1,623,684</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,035,965</strong></td>
<td><strong>4,071,930</strong></td>
</tr>
</tbody>
</table>

The primary debris types include:

- building materials (brick, stone, concrete, metal, drywall etc.)
- damaged infrastructure (roads and bridges)
- white goods (appliances)
- brown goods (furniture and household items)
- household and commercial hazardous wastes
- damaged or abandoned vehicles.

Some of the waste may be fire-damaged or located in navigable waterways. (For more details about debris types, see *FEMA Publication 325 - Public Assistance Debris Management Guide*.)

Especially if the incident occurs during rainy weather, it could also trigger landslides. Most of the dirt would not be contaminated, but saturated soil and rock are difficult to handle.

In addition to substances conventionally considered hazardous (paint, pesticides, industrial chemicals in drums), a number of damaged or collapsed structures may have asbestos siding or contain heating oil tanks; these are also toxic and require special handling. The DEQ regulates these materials.

Some collapsed buildings may contain human remains, even after most fatalities have been recovered. If human remains are discovered, the medical examiner must be involved before they are disturbed.

The City is equipped to pick up, temporarily store, and dispose of some vegetative debris, soil, and concrete, brick, and asphalt. The City does not now have the capability to store or dispose of white or brown goods, putrescibles, or hazardous wastes.

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1 This study represents total debris generated and is adequate for the purpose of developing a concept of operations for debris management, however, it is dated and it excludes single-family residential houses. The City is working on a refined debris estimate based in LiDAR data. Numbers referenced here are the “high” scenario from the study.

2 Converted from weight at the rate of 1 ton + 2 cubic yards, recommended by the US Army Corps of Engineers and referenced in *FEMA 329-Debris Estimating Field Guide*. 
Assumptions

- Following the disaster, transportation agencies including the Portland Bureau of Transportation, Multnomah County Road Services, and the Oregon Department of Transportation, will initiate damage assessment and debris clearance along emergency transportation routes (ETRs) according to the Memorandum of Understanding “Emergency Transportation Route Post-Earthquake Assessment and Coordination” adopted by Portland City Council on November 11, 2007. A map and list of the routes is included as Attachment Five.

- The amount of debris generated will exceed the City’s ability to coordinate the removal of both normal household waste and disaster-generated debris, requiring the City to contract for additional resources to assist in disaster-generated debris removal.

- The City will utilize contracted services to coordinate the transport of disaster debris to existing regional transfer stations and/or to TDSRS.

- The City will utilize an electronic load ticketing system for tracking debris movement. The City will seek to prequalify contractors that are FEMA-approved.

- Metro will monitor debris information following a major incident and coordinate activation of TDSRS if the amount of debris generated is anticipated to exceed the capacity of existing regional transfer stations.

- The City, neighboring jurisdictions, and the U.S. Army Corps of Engineers will provide resources to support activation of TDSRS.

- If vegetative debris and clean dirt from landslides are an overwhelming volume (most likely in the west hills), the City may use public open spaces away from wetland and riparian areas and that are primarily covered by grass or bare dirt to temporarily store these types of non-contaminated debris.

- The City will activate mutual aid agreements, but recognize that mutual aid resources may be limited; a significant seismic event would impact the entire region. A Cascadia subduction zone earthquake would affect much of the west coast of the United States.

- The Mayor will declare a local emergency and request a state designation from the county. The Governor will declare a state of emergency that will authorize state resources to assist in removal and disposal of debris. If the disaster exceeds both local and state resources, the Governor will request a presidential disaster declaration.

- Depending on the size and complexity of the debris mission the City may request technical and/or direct federal assistance from the US Army Corps of Engineers (USACE) for Disaster Debris Removal and Public Assistance.
Organization and Assignment of Responsibilities

Debris Management Planning Team and Collaborators

The City of Portland established a Debris Management Planning Team to coordinate and develop this plan. During a debris generating incident, representatives of the same bureaus will support debris management as members of the Emergency Operations Center (EOC) Debris Management Branch and by filling other roles in the EOC.

Debris Management Planning Team consists of members from the following City of Portland bureaus:

- City Attorney
- Development Services
- Emergency Management
- Environmental Services
- Planning and Sustainability
- Transportation
- Water

The following agencies are also essential collaborators in regional debris management efforts:

- Metro
- Multnomah County
- Port of Portland
- Oregon DEQ
- Oregon Solid Waste Haulers
- US Army Corps of Engineers

Debris Management Branch

A Debris Management Branch will be established within the EOC Operations Section to oversee citywide debris clearance and removal activities. The branch will:

a. Establish and assign strike teams to geographic divisions to address debris clearance objectives. Examples of strike teams include but are not limited to:

1. Street clearance.
2. Downed tree removal.
3. Abandoned vehicle removal.

b. Establish staging areas within their divisions for resources and personnel.

c. Conduct initial assessment to determine debris estimates including location, types and amount of debris. (See FEMA Publication 329 -- Debris Estimating Field Guide.)

d. Provide information to the EOC to develop and maintain citywide situational awareness of debris management.

e. Establish debris clearance schedules within each quadrant.

f. Clear debris according to the incident objectives and strategies. In coordination with Transportation, Water, and Development Services Damage Assessment Teams, provide information needed to evaluate critical facilities and infrastructure and develop a strategy for
unsafe structures threatening the public.

g. Identify additional resources needed to support debris clearance operations and safety assessments.

h. Maintain the on-site source documentation, such as time-sheets, work logs, and equipment use sheets, necessary to show that work was disaster-related and support the hours claimed on the force account summary. Provide documentation to the EOC.

i. Coordinate with the US Army Corps of Engineers performing mission assignments.

**Emergency Coordination Center**

A full activation of the ECC will occur following a large-scale debris-generating incident. EOC staff will rely on established operating procedures as well as this plan.

a. Incident Command will develop overall incident objectives.

b. Command staff
4. Liaison Officer will coordinate with regional partners regarding their collection strategies and coordinate with Metro regarding debris estimates and possible activation of regional TDSRS.

5. Safety Officer will monitor debris operations and issue guidance as needed to ensure compliance with health and safety requirements for response personnel. Debris removal contractor project managers and contracted monitoring firms will be responsible for the health and safety compliance of their respective personnel and subcontractors.

6. Public Information Officers (PIOs) will initially rely on pre-scripted messages about efforts to resume garbage pick-ups, sorting debris, and not blocking public rights-of-way (ROW).

As debris clearance efforts develop following a disaster, a regional public education campaign through a Joint Information System (JIS) will be implemented, encouraging residents to follow agreed-upon protocols for disposing of waste. Residents will likely be asked to sort debris, white goods, household hazardous wastes, and compostable materials, and to bring them curbside or deliver them to collection points according to a set schedule. (See Attachment Three – Public Information Templates).

c. Operations Section will develop a strategy for the removal of debris in right-of-ways, on public lands, and private property debris that threatens public health, safety, and/or economic recovery of the community. Operations will assign and supervise the resources needed to accomplish incident objectives.
d. Planning Section will create and update situation status reports, manage the planning process and document incident action plans.

e. Finance Section will collect and organize financial documentation and manage contracts and procurement. The Finance section will rely on its established operating procedures as well as this plan.

1. Establish and renew as needed contracts for debris clearance, debris monitoring, and other resources needed for debris operations as identified by the Logistics sectuib.

2. Coordinate with the Logistics section to make purchases as needed.

3. Ensure contracting and procurement is compliant with local, state and federal guidelines.

4. Track force account labor and equipment use and cost.

5. Document all City-incurred costs related to disaster debris management in a manner that complies with FEMA reimbursement guidelines.

f. Logistics Section will provide requested support, in part from vendors on the registration list at the City’s Online Procurement Center at www.ebidexchange.com/cityofportland.

Roles and Responsibilities

This section outlines roles and responsibilities specific to debris management. Not all possible contributions are described; all bureaus have a responsibility to continue essential city services and assist in the response and recovery from an emergency, including providing staff to the City’s EOC and supporting response and recovery work with bureau resources.

Bureau of Transportation (PBOT)

PBOT’s plan following a major earthquake is for its six damage assessment teams to immediately self-dispatch and begin assessing bridges and overpasses along ETRs, according to the ETR MOU. Following any major debris-generating incident, PBOT will also assume command of debris clearance and direct initial debris clearance activities until the EOC is activated and the Debris Management Branch is assembled.
Assessment teams and clearance teams will initially travel together along ETRs and other identified critical routes.

When the Debris Management Branch is operational, PBOT Maintenance Operations will provide a Branch Director.

PBOT also operates Sunderland Yard Recycling facility with a three-stage diesel asphalt grinder, which is capable of processing 85-100 tons of concrete, brick, and asphalt per hour and may be utilized for reducing disaster-generated debris. There are also three acres on-site for material storage. This facility does not accept dirt or vegetative debris, although PBOT does also have two mobile wood chippers. A complete inventory of bureau equipment and available resources is maintained by PBOT. (See Attachment Four – City of Portland Equipment).

**Bureau of Planning and Sustainability (BPS) Solid Waste and Recycling**

The Bureau of Planning and Sustainability’s Solid Waste and Recycling Section administers solid waste and recycling collection for the City. Private contractors and franchisees perform garbage and recycling pick-up.

BPS will coordinate with Metro, regional partners, franchise haulers, private permitted haulers and state agencies to facilitate resumption of near-normal curbside collection activities and private commercial collection activities. (See Attachment One – Solid Waste Facilities and Attachment Two - Franchised and Licensed Commercial Haulers).

BPS staff will serve in the Debris Management Branch and support the EOC in debris removal activities.

**Bureau of Environmental Services (BES)**

BES’s primary focus is storm and sewer infrastructure. Heavy equipment located at the Columbia Boulevard Waste Water Treatment Plant may be utilized to clear debris and provide access to the facility and the immediate vicinity. The Debris Branch may request additional resources from BES to support debris clearance; BES will provide additional staff and equipment as circumstances allow (See Attachment Four – City of Portland Equipment).

**Bureau of Development Services (BDS)**

BDS is tasked with assessing damaged buildings within all of Multnomak County. BDS will identify buildings that pose a threat to public safety and should be demolished as part of debris clearance. BDS will also provide debris estimates to the EOC and advise on issues of historic preservation and documentation of damage to historic structures. During the recovery phase, BDS will manage permitting for demolition and removal of unsafe structures throughout the city.
**Parks Bureau**

Parks resources will initially focus on assessing and clearing debris from Parks facilities that have been identified to support emergency response, such as medical care points, helispots, BEECN sites, resource staging, points of distribution, evacuation staging, mass care sites, and responder rest and recovery areas.

Parks will also provide staff and equipment for downed tree strike teams and other clearance and removal activities as resources allow and as requested by the Incident Commander. Parks has 14 tree specialists who normally work in three-person crews; they can remove trees or supervise other crews removing trees.

Eight tree inspectors can be assigned to assess tree hazards within the city. Parks also has four chip trucks and four chippers and up to four acres for storage for chipped material at their Delta Park location. A complete inventory of bureau equipment and available resources is maintained by Parks Bureau. (See Attachment Four – City of Portland Equipment).

**Water Bureau**

Immediately following a debris-generating incident, Water Bureau resources will focus on assessing damages and clearing debris from critical water facilities. The Water Bureau has six, four-person damage assessment teams, each equipped with a support trailer.

The Water Bureau will also assist with debris clearance and removal in the area surrounding their critical infrastructure and other clearance and removal activities as resources allow and as requested by the Incident Commander. (See Attachment Four – City of Portland Equipment).

**City Attorney**

An attorney will provide advice and guidance on contracts, private property right-of-entry permits, and hold harmless agreements; advise Incident Commander and Debris Management Branch Director on legal conduct of debris removal operations and disposition of personal property; private property demolition and debris removal; and advise Finance Section staff assigned to Public Assistance on issues such as condemnations and potential liability.
Metro

Metro, the Portland metropolitan area regional government, has planning responsibility for disposal of solid waste within the three-county metro area. Metro has the authority to license and regulate all sites or facilities that receive, manage or dispose of solid waste, recyclables and compostable material generated or disposed of within the three-county metro area. Metro operates two contracted regional transfer stations that accept trash and recyclables from residents, businesses. Metro also receives and processes household hazardous wastes from regional residents.

Metro’s Regional Solid Waste Management Plan (RSWMP) serves as a regional framework for coordinating solid waste and recycling programs. The “Regional Disaster Debris Management Plan”, Appendix B of the RSWMP, is intended to ensure that disaster debris efforts are also coordinated regionally. Following a large-scale debris-generating incident, the City of Portland will look to Metro to manage the activation, permitting and operation of TDSRS to process disaster debris. If requested, the City will provide contracted personnel and equipment to TDSRS as available. Metro would also be expected to mobilize engineering, recycling, GIS mapping, and public relations teams to coordinate regional recovery efforts related to debris. Metro is expected to coordinate with the City through the Liaison Officer.

Metro’s Draft Disaster Debris Manual identifies several potential debris sites within the three-county Metro wasteshed. Primary and secondary sites were identified in each of the six designated zones; however, regulatory approval for use was not obtained. A map of potential debris handling sites identified by Metro is included as Attachment Six.

Private Franchise Haulers

The City of Portland Bureau of Planning and Sustainability oversees private residential and permitted commercial garbage collection and recycling services within the City of Portland pursuant to Portland City Code Chapter 17. Residential franchise zones have been established and assigned to specific private franchise haulers. Commercial service is open and competitive with businesses contracting directly with permitted haulers (See Attachment One – Solid Waste Facilities and Attachment Two Franchise and Licensed Commercial Haulers). Following a debris-generating incident, the City will look to existing franchise and permitted commercial haulers to resume regular collections as soon as possible; these haulers may also contract to perform additional disaster debris work or to serve routes for other haulers that are not yet able to resume service, as allowable under the City’s Franchise Agreement. Disaster
debris contracts awarded to private contractors shall adhere to City of Portland emergency procurement guidelines.

**Multnomah County**

**Emergency Management**
Multnomah County will activate their ECC and implement the county Debris Management Plan (under development), initiate damage assessment, establish a debris management branch and coordinate with regional partners.

They will also facilitate the disaster declaration and resource ordering process to Oregon Emergency Management.

**Public Health**
Multnomah County Vector Control & Code Enforcement will advise on vector control if this becomes an issue in the weeks following a disaster.

Multnomah County Health Department will advise on other threats to public health posed by disaster-related debris.

**Roads and Bridges**
Multnomah County Community Services Department (Road Services and Bridge Section) is a partner in the 2007 regional MOA on ETRs. Multnomah County will perform debris clearance along critical County roadways and bridges, and at critical facility ingress/egress along those routes within the City of Portland as circumstances and resources allow.

**State of Oregon**

**Oregon Emergency Management (OEM)**
OEM will coordinate state activities outlined in the *Oregon Emergency Operations Plan* through activation of the State ECC, and will coordinate a presidential disaster declaration and requests for state resources by mission assignments.

**Oregon Department of Transportation (ODOT)**
ODOT is the lead agency for the state’s debris management efforts, as outlined in the *State of Oregon Debris Management Plan*. ODOT is also a partner in the 2007 regional MOA on ETRs and the Oregon Public Works Emergency Response Cooperative Assistance Agreement. ODOT will perform debris removal along state and federal rights-of-way in Portland.
**Department of Environmental Quality (DEQ)**

The DEQ will help to determine if existing transfer stations and landfills can be used, and if necessary assist in the expansion of existing or creation of new permits for disaster debris management. If TDSRS are needed, both Metro and the DEQ must approve and permit them. Depending on the scope of the disaster, the DEQ may also provide technical assistance at TDSRS, although they will not physically operate any sites. They may advise or physically assist (through established contractors) in managing household hazardous waste collection. DEQ would also participate in regional messaging about how to manage debris.

Their publication *Managing and Permitting Disaster Debris* further describes the standards, actions and roles of the DEQ.

**Oregon State Fire Marshal (OSFM)**

Three Incident Management Teams (IMT) can be requested through Multnomah County to State of Oregon OEM to provide comprehensive incident command to manage ongoing emergency operations. IMTs provide incident management expertise in logistics, finance, planning, public information, operations, safety, and community issues.

**Federal Government**

**Federal Emergency Management Agency (FEMA)**

FEMA serves two primary roles in debris removal operations. First, it provides funding to eligible applicants. Second, through a mission assignment to another Federal agency such as the US Army Corps of Engineers, it may provide direct federal assistance to an applicant (state or local government) that does not have the capability to respond to a presidentially declared disaster.

**US Army Corps of Engineers (USACE)**

In cases where the damage and debris is so extensive that it exceeds local and state capabilities, FEMA can assign the USACE a mission to provide debris management assistance in support of the National Response Framework. Following a presidentially declared disaster, USACE may be asked to provide significant contracted resources in support of debris collection and TDSRS management.
Concept of Operations

Debris clearance and removal shall reflect the City’s operational priorities: protecting human life, safety, and health; protecting public property and the environment; protecting private property; restoring utilities and essential government functions; and supporting regional coordination among all levels of government. PBEM anticipates three major phases in debris operations.

Response Phase: Emergency Debris Clearance Operations 0 - 72 hours

Initial response operations will be implemented by PBOT immediately following a debris-generating event. The major emphasis during this phase is to simply push debris from the traveled roadway towards the curb to open emergency transportation routes and roadways to critical facilities and affected neighborhoods. Responders should move debris the minimum amount required to clear arteries, and generally refrain from attempting to physically remove or dispose of debris during the response phase. Only one lane of roadway or entrance/exit way to a facility should be cleared during the response phase.

Given experience with recent snow events, many roads may be filled with abandoned cars. Abandoned autos that are not otherwise damaged should also be pushed the minimum distance needed to clear a travel lane.

Prior to full EOC activation and Debris Management Branch organization, the PBOT Incident Commander (IC) may utilize all available resources including force account labor and equipment, mutual aid providers and local contractors to perform emergency debris clearance activities. Following an earthquake or other event in which PBOT damage assessment teams self-dispatch to assess bridges and ETRs, single resources and strike teams will travel with the PBOT damage assessment teams to clear debris wherever possible.

When the EOC is activated and the Debris Management Branch is established in the Operations Section, initial tasks will be to:

a. Designate Divisions (manageable geographic areas) and Division Supervisors to supervise street operations. The divisions are referred to in this plan as N, NE, NW, SE, and SW. However, boundaries of these areas may be adjusted according to locations of debris and TDSRS, once established.
b. Assign Street Operations strike teams and task forces to divisions to:
   1. Perform windshield surveys of damage and estimate debris quantities and types,
   2. Document (photograph) areas where debris must be removed.
   3. Identify locations of potentially hazardous/contaminated debris that may require DEQ involvement for clean-up.
   4. Coordinate debris clearance with utility restoration efforts.

c. Assign downed tree strike teams to support street operations or clear open spaces for emergency purposes as needed.

d. Estimate magnitude of the incident against available resources to determine what additional assistance is needed.

e. Make resource requests to Multnomah County Emergency Management.

f. Activate approved city contractors for debris clearance following established City procurement guidelines.

g. Coordinate with Metro on storage and transfer sites, including possible activation of TDSRS.

h. Provide initial (pre-scripted) public messages about handling debris safely, public right-of-way, and not blocking right-of-ways. (See Attachment Three – Public Information Templates)

Removal Phase: Debris Removal and Disposal Strategy 72 hours – 30 days

a. Recovery operations consist of the removal, reduction, recycling, processing, and disposal of debris necessary to ensure the orderly recovery of the community and to eliminate threats to public health and safety.

b. Conduct citywide damage assessment to refine initial debris estimates and assessments.

c. Coordinate with Metro regarding debris storage and transfer site operations. Ensure adequate numbers of sites are operational to accept City disaster debris.

d. Identify public open spaces with grass or bare dirt, away from streams, wetlands, and steep slopes, that can temporarily accept vegetative debris and clean dirt from landslides, if necessary to avoid overwhelming other sites.

e. Refine debris removal objectives and strategies based on best information available.

f. Remove debris according to established objectives.

g. Coordinate responsibilities and collection strategies with private contractors, regional, state, and federal partners.

h. Facilitate close coordination (daily meetings) between supervisors, strike team leaders, Metro, transfer station managers, monitoring staff, and liaison staff to update progress and discuss strategies and logistics.
i. Terminate emergency time-and-materials debris clearance and removal contracts after 70 hours of actual work or when price limit is reached, whichever comes first; implement more standard contracting processes.

j. Ensure that City bureaus and contractors follow established safety and quality assurance practices; The US Army Corps of Engineers Debris QA Field Guide is a preferred reference.


l. If possible, delay demolition of potentially historic structures; document their condition well.

m. Assign and deploy debris monitors, either through force account labor or contract services, to debris management divisions to monitor removal, collection, disposition and TDSRS operation to provide Quality Assurance (QA). FEMA 327 – Public Assistance Debris Monitoring Guide provides detailed direction for requirements and activities.

n. Assure that there are monitors at all sites where human remains may be mixed with debris.

o. Restore near-normal curbside collection.

p. Continue to disseminate regionally coordinated public information through PIO or regional Joint Information Center (JIC). Provide information about the regional collection strategy including curbside debris pickup dates, public access to TDSRS, disaster debris safety related information, and other debris-related public information. (See Attachment Three – Public Information Templates)

q. Maintain documentation of debris clearance, removal and disposal activities; provide information to EOC.

r. Participate in Applicant’s Briefing with FEMA Public Assistance Coordinator.

Recovery Phase: Disposition of Personal Property, Problem Debris, and Closure of TDSRS

a. Continue to carry out debris removal and demolish dangerous structures.

b. Coordinate with DEQ to ensure that licensed contractors perform removal of hazardous materials, such as asbestos and heating oil tanks, connected with buildings that must be demolished.

c. Coordinate with Bureau of Development Services and State Historic Preservation Office to ensure that historic structures are not demolished improperly.

d. Continue to document debris removal and disposal activities and update documentation.

e. Contract for disposition of unclaimed automobiles, boats, motor homes, etc.

f. Resolve issues with difficult debris materials: private property debris removal, uncertain ownership, contaminated debris, etc.

g. Coordinate with Metro to consolidate, close, and restore TDSRS.

h. Coordinate with state and FEMA representatives to ensure continued compliance with eligibility and documentation requirements.

Direction and Control

a. **Response Phase:** Field Incident Commander will oversee debris clearance from identified
emergency transportation routes and critical roadways.

b. **Removal Phase:** Tactical direction and control for debris removal will be from the EOC Operations Section Debris Management Branch with authorization of the Incident Commander. Strategic direction and control will be provided by the Disaster Policy Council.

Under the RDPO Regional Disaster Debris Management Framework, a regional MAC group may be established to coordinate regional response and recovery efforts including debris.

c. **Recovery Phase:** In the recovery stage, debris management will transition back to bureau leadership or to a separate recovery leadership as described in the Recovery Annex (under development).

## Administration, Support and Finance

a. **Response Phase:** During clearance activities, individual bureaus will be responsible for tracking expenditures for personnel, equipment and material resources utilized for disaster debris management activities following established policies and procedures that relate directly to debris clearance. Established emergency procurement procedures outlined in Portland City Code Chapter 5.33 will be used when contracting services or equipment.

b. **Removal Phase:** During debris removal activities and until the EOC is demobilized, the EOC Finance Section will coordinate disaster and debris related financial information following established EOC Finance Section processes:

2. Coordinate debris-related purchases and expenditures.
3. Collection of financial information and application for federal disaster assistance.

c. **Recovery Phase:** Finance Team will oversee the Public Assistance Grant Program Project Worksheets through project close out. (Finance Procedures under development.)

## Annex Development and Maintenance

PBEM is responsible for coordinating the review and update of this plan every three years, or after each major incident or exercise involving debris management. Other bureaus with responsibilities identified in this plan will assist according to the roles described.

All responsible bureaus and collaborating agencies should be familiar with the annex and ensure that the content is consistent with their agency's own plans and procedures.

## Authorities and References

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Attachments

1. Solid Waste Facilities in the Portland Metropolitan Region.
2. Licensed Franchised Haulers in the City of Portland
3. Public Information Templates
4. Summary of City-owned Equipment by Bureau
5. Map of Emergency Transportation Routes and list of routes by responsible agency (from City Ordinance 180656)
6. Map of existing solid waste facilities
7. Map and Description of Potential Debris Handling Sites (from Draft Disaster Debris Management Manual)