

CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

Study Session Worksheet

Presentation Date: Oct. 4, 2017 **Approx Start Time:** 10:30 a.m. **Approx Length:** 45 min.

Presentation Title: Introduction to Disaster Debris Management Plan

Department: Transportation and Development

Presenters: Dan Johnson, Assistant Director, Transportation and Development; Eben Polk, Resource Conservation and Solid Waste; Sarah Stegmuller Eckman, Disaster Management

Other Invitees: Barbara Cartmill, Nancy Bush

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

No action requested. This is an update for the Board; we hope to submit our plan to FEMA in early 2018.

EXECUTIVE SUMMARY:

The Disaster Debris Management Plan is a component of the Clackamas County Emergency Management Plan administered through the County's Disaster Management Department. As you will see in the presentation (attached), the plan focuses on enabling recovery from a disaster and the return to a healthy, functioning community by clearing, removing, recycling and disposing of debris generated by events such as floods, ice- and wind-storms, landslides, and earthquakes

Equally important to the health of the community is ensuring the financial security of the County. Development of the Disaster Debris Management Plan is a focused effort to ensure that post-disaster event actions by the County are consistent with the Public Assistance Program and Policy Guidelines (PAPPG) administered by the Federal Emergency Management Agency (FEMA). Through this program, FEMA provides supplemental federal disaster grant assistance for debris removal, life-saving emergency protective measures, and repair, replacement or restoration of publicly-owned facilities and certain private non-profit organization facilities damaged by a disaster.

As FEMA is the granting agency for Public Assistance Disaster funding, the County has been developing our plan to ensure consistency with FEMA policies. To ensure consistency with these standards, FEMA provides a "crosswalk" or assessment of local agency plans. We hope to submit the County's Disaster Debris Management Plan to FEMA for review in 2018.

FINANCIAL IMPLICATIONS (current year and ongoing):

Is this item in your current budget? YES NO

What is the cost? The cost depends on the disaster.

What is the funding source? Road Fund and General Fund

STRATEGIC PLAN ALIGNMENT:

- How does this item align with the County's Performance Clackamas goals?
 - Build public trust through good government.
 - Ensure safe, healthy and secure communities.

LEGAL/POLICY REQUIREMENTS:

County Counsel has been part of our discussions.

PUBLIC/GOVERNMENTAL PARTICIPATION:

Staff is coordinating with regional partners to develop sound strategies to address disaster debris management.

OPTIONS:

N/A – Information Only

RECOMMENDATION:

N/A – Information Only

ATTACHMENTS:

Attachment A: Presentation

SUBMITTED BY:

Division Director/Head Approval _____

Department Director/Head Approval _____

County Administrator Approval _____

For information on this issue or copies of attachments, please contact Dan Johnson @ 503-742-4325.



Disaster Debris Management Program

Board of County Commissioners Policy Session

10:30 a.m., October 4, 2017

Disaster Debris Management

Disaster debris is *not*...



Disaster debris *is*...



Disaster Debris Management: Part of Emergency Operations

- Clackamas County Emergency Operations Plan
 - Disaster debris management plan
- Phases of emergency management: mitigation, **preparedness**, response, **recovery**
 - Debris management **preparedness**: develop plans and procedures, contracts, identify sites...
 - Debris management **response**: 24 hours post-event until the job is done (months, year, years)...

The Importance of a Debris Management Plan

- Disaster recovery -- returning to a functioning community
- Cost recovery
 - Provisions of federal funds for disaster recovery - disaster declaration
 - Administered by FEMA
 - Only residential and public facilities, **not** commercial or industrial facilities
 - Flow of funds: Federal award → recipient (State of Oregon) → sub-recipient (county, city, district)
 - Qualified expense: reimbursable up to a rate of 75-100% of local expense

Type and Amount of Debris Varies by Event

- Types of disaster events:

- Hurricanes
- Tsunamis
- **Ice storms**
- **Floods**
- **Landslides**
- **Earthquakes**
- **Wildfires**
- Volcanoes
- **Tornadoes/wind**
- Acts of terrorism

- Why is type of event important?



It Determines What We Will Be Dealing With!



Types of Debris

- Vegetation
- Construction and demolition (C&D)
- Household hazardous waste
- White goods (appliances)
- Animal carcasses
- Metals
- Sand and sediment



Debris Management: Five Areas of Focus

- 1) Public information
- 2) Clearance & Collection
- 3) Reduction
- 4) Disposal & Recycling
- 5) Monitoring



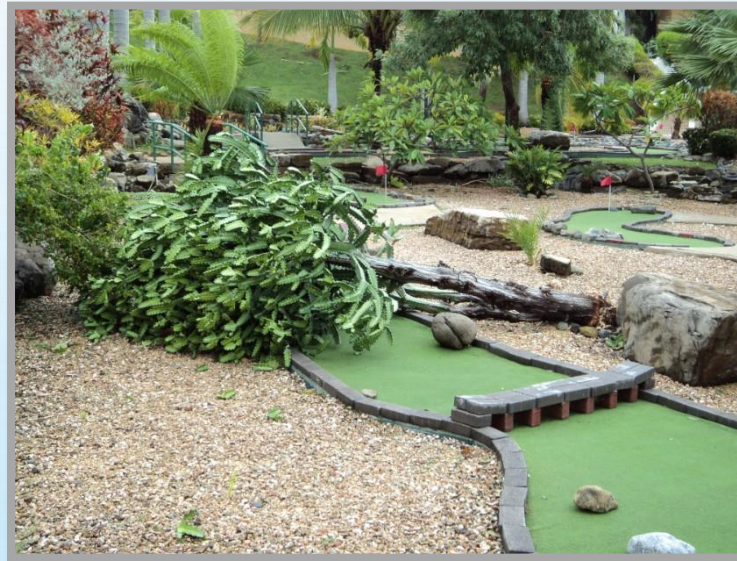
1) Public Information

- Clearance and removal on roadways and public property
- Private property debris removal (PPDR)
 - Scope and scale of event: public interest (duplication of benefits)
 - Includes:
 - agricultural lands used for crops and livestock
 - privately-owned vehicles



1) Public Information (continued)

- Ineligible PPDR work includes debris from:
 - Vacant lots, forests, heavily wooded areas, unimproved property
 - Concrete slabs or foundations on grade – no basements
 - Reconstruction
 - Pre-event stored white goods, tires, batteries, equipment, etc.
 - Swimming pools
 - Commercial or industrial facilities
- Debris collection process



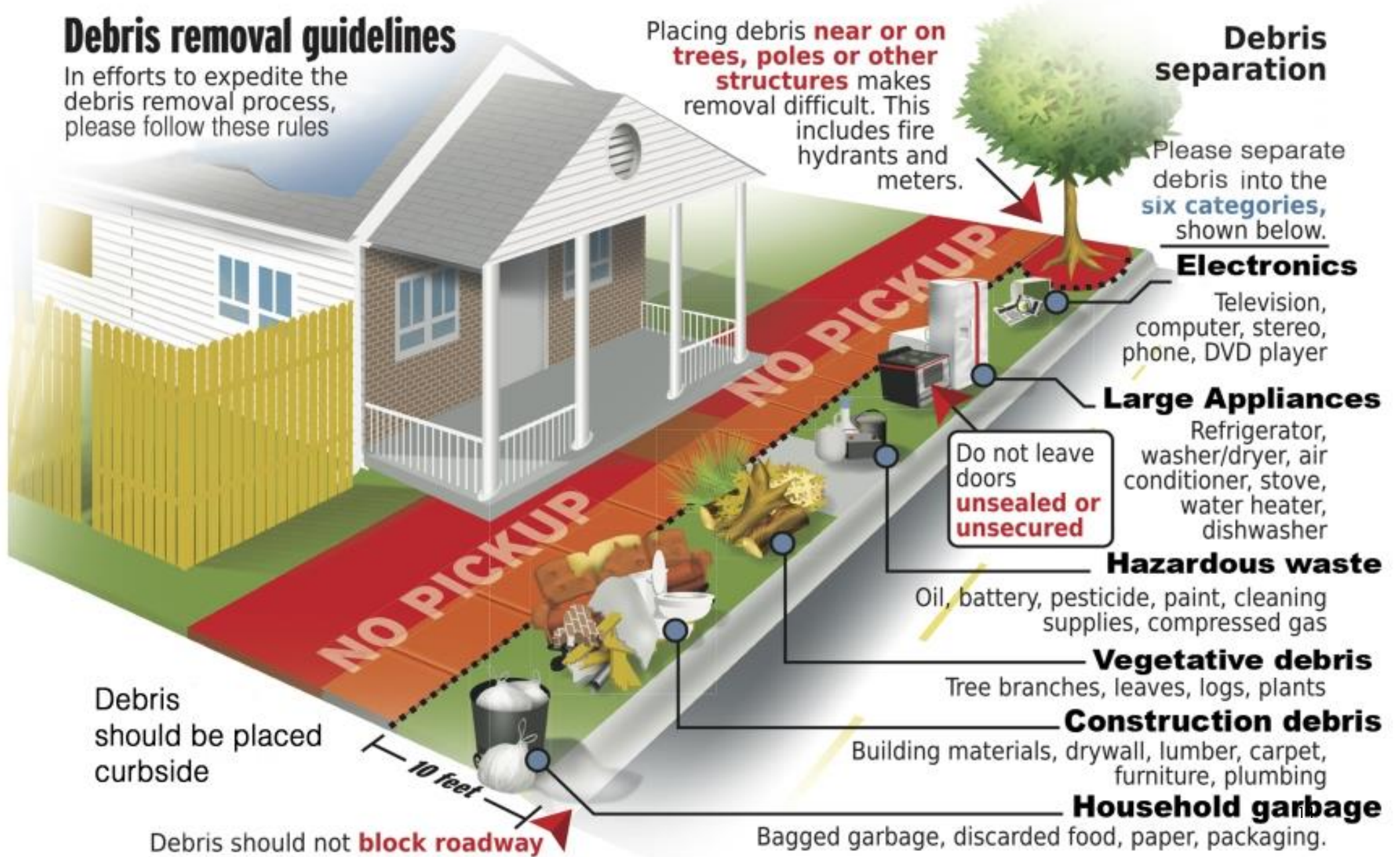


FEMA

www.fema.gov

Debris removal guidelines

In efforts to expedite the debris removal process, please follow these rules



1) Public Information - Clearance

We want this...



Not this...



2) Collection

- Scope and scale of event may dictate collector:
 - Public rights-of-way: county and/or private contractor
 - Curbside: private contractor
 - Public drop-off sites: county/regional partners or private contractor
- Contracting: lump sum (defined areas/period) or unit price



2) Collection – Public Drop-off Sites

Public drop-off sites



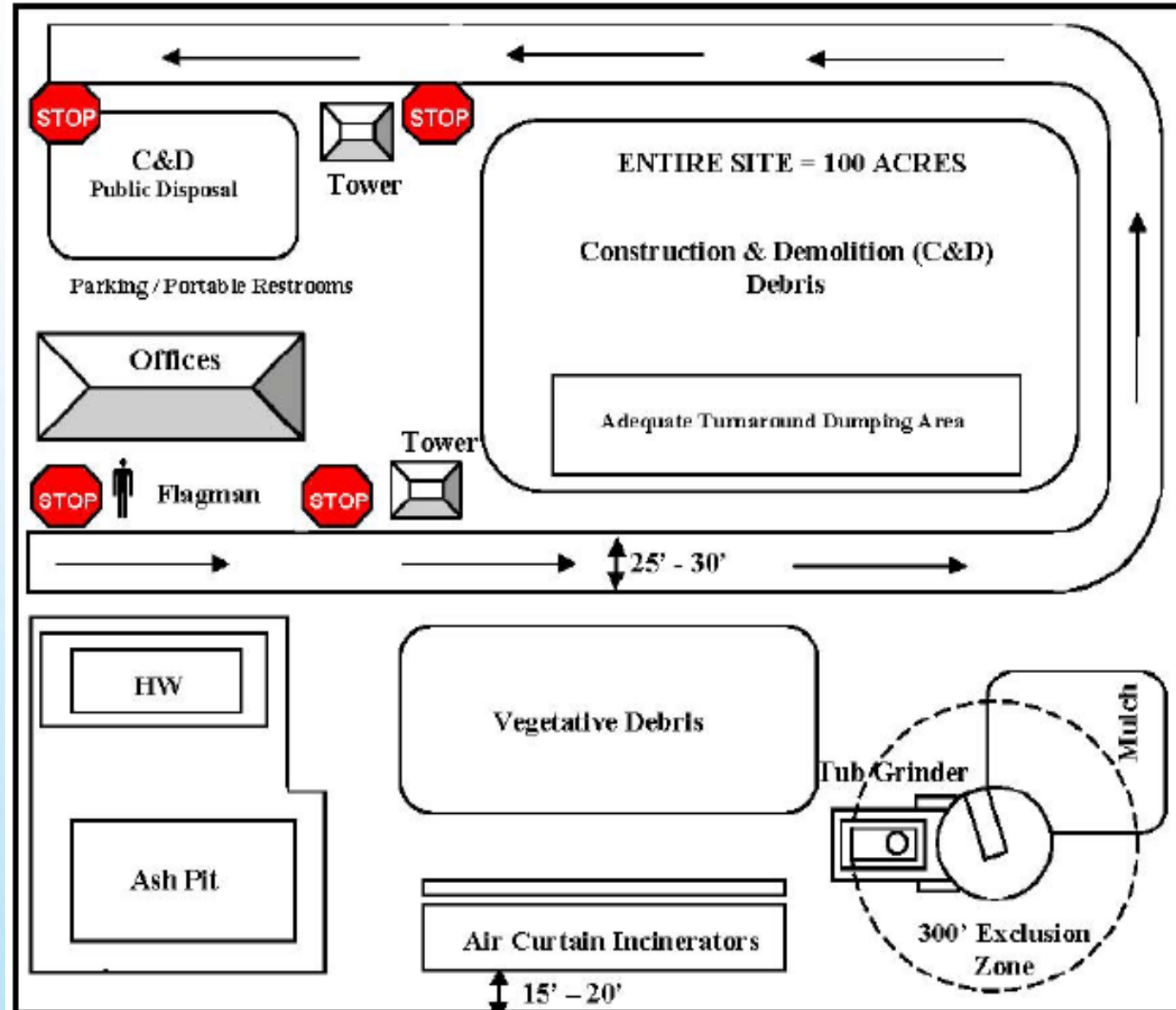
Self-haul is non-reimbursable

3) Reduction: Temporary Debris Management Sites (TDMS)



- 1-acre storage capacity – 16,133 cubic yards of debris (with 10-ft maximum pile height)
- 40% storage rate/acre (remainder: roads, buffers, clear zones, burn pits...)

TDMS Site Requirements



TDMS Site Requirements (continued)

- Must be permitted
 - Historic review
 - Environmental review (Dept of Environmental Quality; Environmental Protection Agency)
- Other considerations
 - Land availability (public or private)
 - Community impact
 - Access
 - Difficult to permit before an event
 - Post-event vision
- Contracted work: unit price (primarily), possibly lump sum



Debris Forecasting

- Typical residence (2,400 sq. ft. - structure and content) – 480 cubic yards
 - Multipliers: Light vegetation – 1.1 | Medium vegetation – 1.3 | High vegetation – 1.5
- 2,400 sq. ft.-residence (contents only) – 40-50 cubic yards
- Single-wide mobile home (structure and contents) – 290 cubic yards
- Double-wide mobile home (structure and contents) – 415 cubic yards
- Forecasting vs. Estimating
 - Forecasting – pre-event based, difficult for smaller or focused events
 - Estimating – post-event assessment
 - Event classifications – assist with implementation



3) Reduction – Debris Management Sites

Event classification (under consideration)

- Low damage event (e.g., localized flooding)
- Moderate damage event (e.g., widespread flooding/wind)
 - Flood and/or wind event debris estimates
 - Scattered 10 – >20 acres sites
- High damage event (e.g., 9.0 earthquake) – we have estimates, but little more...
 - Urban: 3.2 million cubic yards debris
 - Rural: 3.3 million cubic yards debris
 - Debris storage needs: 600 – 1,000 acres
- Acreage needs
 - Scalable/phased
 - Product of efficiency (not storage site, a processing site – input/output balance)



4) Disposal & Recycling

Though we can reduce it, the debris will need to go somewhere...



5) Monitoring

- Important!!!!!!
- Contracted service
 - Separate from debris collection and disposal contract
- Monitoring steps
 - Collection
 - Processing (TDMS)
 - Disposal



5) Monitoring

CITY OF _____		LOAD TICKET	Ticket No. 000001
Section 1			
Prime Contractor:			Date:
Subcontractor (Hauler):			Departure Time:
Driver:			Certified Truck #
Certified Bed Capacity (cu. yds.):			
Debris Pickup Site Location:			
Street Address or Cross Street:			
GPS coordinates in Decimal Degrees (Nxx.xxxxxx)			
N _____	W _____		
Debris Type:	<input type="checkbox"/> Vegetation	<input type="checkbox"/> Construction & Demolition	
	<input type="checkbox"/> Mixed	<input type="checkbox"/> Other (See Remarks)	
Loading Site Monitor: Print Name:	Signature: _____		
Remarks:			
Section 2			
Debris Disposal			
Estimated Capacity:	_____		
Estimated Capacity:	_____		
Disposal Site:	_____		
Signature: _____			
Remarks:			
This is a 5 part load ticket. Original and 4 copies			
Original - Disposal Site Monitor		Copy 4 - Loading Site Monitor - Copies 1, 2 and 3- Onsite Contractor's Representative or Driver	



Next Steps

- Refine the plan
- Coordinate with city and regional partners
- Identify TDMS sites



TDMS Site Selection: Discussion

- Considerations

- Public or private ownership
- Environmental/historical
- Access – emergency routes, natural barriers
- Site characteristics - size, grade... (need scalability)



- Creative thought – it's an area to store debris & reduce it; other options?
 - Scalable
 - Urban - parking lots/rights-of-way
 - Rural – open spaces

Next Steps

- Refine the plan
- Coordinate with city/regional partners
- Identify TDMS sites
- Contracting



Contracting: Discussion

- Coordination with Procurement
 - Contracts for what?
 - Types of contracts?
 - Local, regional, national contracts?
 - Federal procurement process
- Develop scope of work (SOW) for services



Next Steps

- Refine the plan
- Coordinate with city/
regional partners
- Identify TDMS sites
- Contracting
- ***FEMA crosswalk submittal – March 2018 (estimate)***



QUESTIONS?

