

WILDFIRE DEBRIS PANEL RUN DOWN

# Navigating the Aftermath:

## Best Practices for Wildfire Debris Cleanup and Recovery

## Panelist Introductions

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### 2015 & 2017 – California

- 800,000 tons of debris removed
- 1,900 Private Properties in PPDR Program



### 2018 Camp Fire – California

- Over 3,000 individuals and pieces of equipment worked daily



### 2021 – Oregon

- 360,000 tons of debris removed
- More than 2,500 Properties in PPDR Program

# Complexity of Wildfire Debris Removal

- ✓ Burned structures
- ✓ Burned vehicles
- ✓ Vegetation
- ✓ Metals
- ✓ Concrete
- ✓ Asbestos
- ✓ Ash
- ✓ Contaminated soils and other hazardous substances





# Complexity of Wildfire Debris Removal

## Recyclability

A significant portion of structural wildfire debris, such as metals and concrete, is recyclable, which adds a layer of complexity to the cleanup process

## Soil Contamination

Determining the extent of soil excavation required to remove contamination is a critical and challenging aspect of the cleanup.



# Recyclability of Wildfire Debris

- ♻️ Metal
- ♻️ Concrete
- ♻️ Brick
- ♻️ Vegetation
- ♻️ Vehicles





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# Tree Hazard Assessment



# Community Preparedness Recommendations





# Important Contract Line Items

Mobilization To Operational Branch Debris Removal

Community Dust Control

Community Street Sweeping

Community Traffic Control Crew

Traffic Control Pilot Car & Operator

Traffic Control Additional Flagger

Portable Changeable Message Sign

Miscellaneous Metals

Burned Debris & Ash

Concrete

Contaminated Soil & Residual Ash

Contaminated Soil - Lot Re-scape

Erosion Control, Residential Stick Built Structure

Erosion Control, Residential Mobile Home Structure

Vehicle (Burned Hulks) Abatement

Debris Removal Crew Cost

Misc Metals Transportation, Assume 32 Miles

Burned Debris & Ash Transportation, Assume 32 Miles

Concrete Transportation, Assume 32 Miles

Contam Soil & Residual Ash Trans, Assume 32 Miles

Mobilization Between Lots, Greater Than 3 Miles

Property Owner Assistance

Aggregate Base Rock Application

Chimney/Wall Demolition Crew

Safety Fencing Installation

Septic Tank Abandonment - Fence Panels

Septic Tank Abandonment - Pumping & Disposal

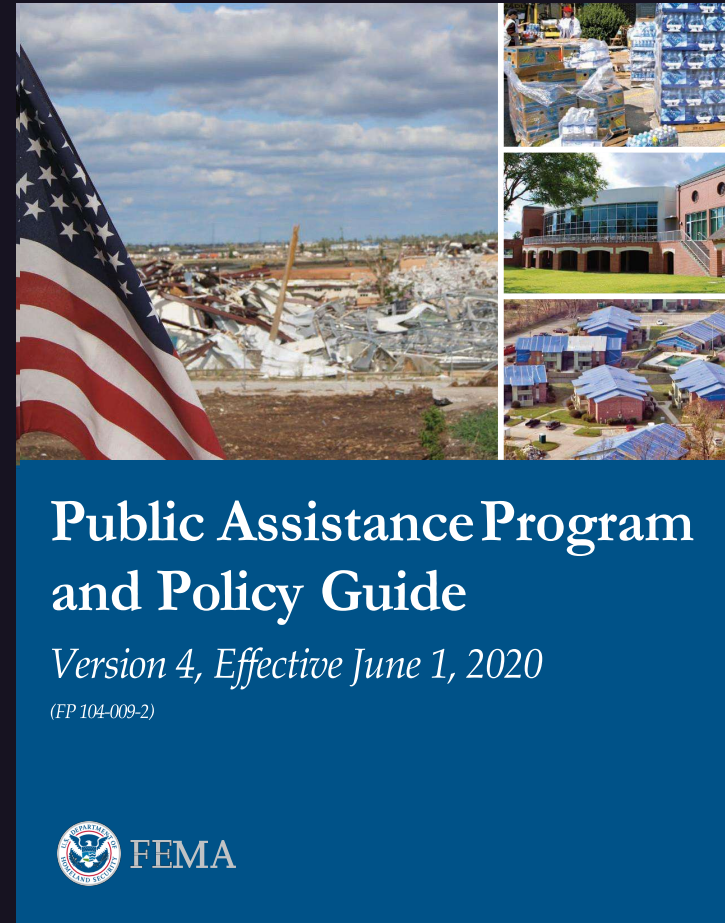
Septic Tank Abandonment - Exc, Rem & Bkfl

Heating Oil & Ust Abandonment - Fence Panels

Heating Oil & Ust Abandonment - Pumping & Disposal

Heating Oil & Ust Abandonment - Exc, Rem & Bkfl

# Operational Phases and FEMA Public Assistance





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- Typically working on Private Property, HHW gets removed
- Setting up a containment area (Hot Zone) where only the crew working on the property is allowed to enter
- Creating an area just outside of the Hot Zone where the crew members put on/take off their Tyvek suits, respirators, gloves/boots so that cross contamination does not occur
- Wetting down of burned materials and soils on continuous basis to keep dust down
- Air Monitoring to ensure the dust is remaining at safe levels
- Segregating and sorting of the various materials (metal, concrete/brick, burned debris & ash)
- Septic Tank Abandonment (Pumping & Disposal) or removal and backfill
- Burned Vehicle collection and recycling
- Load/Haul all recyclable materials individually
- Remove non-recyclable burned debris and ash with the initial scrape of the property
- Load/Haul usually approximately 6 inches of the contaminated soil to make the property ready for secondary soil testing
- Tests come back positive, remove an additional 3-6 inches in the areas that tested "hot"
- Tests come back negative, apply erosion control over all disturbed soils and turn the property back over to the client

# The FEMA Public Assistance Reimbursement Process





Questions?  
Comments?



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