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ESF 3 – Public Works

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ESF 3 Tasked Agencies	
Primary Agencies	Department of Community Services (DCS)
Supporting Agencies	Multnomah County Emergency Management (MCEM) Department of County Assets (DCA) Health Department
Cooperating Agencies	Metro Multnomah County Drainage Districts Sauvie Island Drainage District City Public Works and Transportation Departments City Building Departments Water Departments Waste Water Management Energy Sector <ul style="list-style-type: none"> • PGE • Pacific Power • Northwest Natural • Fuel Providers

1 Introduction

1.1 Purpose and Scope

Emergency Support Function (ESF) 3 coordinates governmental and nongovernmental organizations managing assessments of public works and infrastructure and performing emergency work to restore critical lifelines and key resources to support life-saving and life-sustaining services. ESF 3 resources (personnel, equipment, facilities, materials, and supplies) will be coordinated through the County Emergency Operations Center (EOC) following established procedures and agreements. Resources may also be obtained through contractors, vendors, and suppliers. This support function contains various sub-functions that are outlined below.

Public works and engineering resources, under the authority of ESF 3, will be used to coordinate and/or assist in the following activities associated with emergency response:

- Debris clearance from transportation infrastructure.
- Coordination of the closure and repair of transportation infrastructure.
- Repair and restoration of damaged public systems (e.g., water, wastewater, solid waste, and storm water systems).

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- Stabilization of damaged public and private structures to facilitate search and rescue and/or protect the public's health and safety.
- Operation of temporary infrastructure and equipment to provide emergency water and waste water services.
- Identification and labeling of uninhabitable/unsafe structures.
- Establishment of priorities and processes for issuing demolition and building permits.
- Development and designation of emergency collection, sorting, and debris routes and sites for debris clearance from public and private property.
- Determination of extent of damage to the following systems: transportation, water, solid waste, electrical, natural gas, wastewater, and hazardous materials.
- Prioritization and initiation of recovery efforts to restore, repair, and mitigate city- and County-owned infrastructure.
- Provide technical assistance with respect to flooding, water management, structure integrity assessments, and assessments of impacts to infrastructure.

1.2 Relationship to Other ESF Annexes

ESF 3 often works closely with other County ESFs as a part of coordinated response and recovery activities. The following ESFs support public works activities:

- **ESF 1 – Transportation.** Coordinates the removal of debris from transportation infrastructure.
- **ESF 7 – Resource Support.** Provides support by helping secure personnel, equipment, and supplies to execute response operations.
- **ESF 10 – Hazardous Materials.** Manages hazardous materials encountered during debris management operations and restoration of infrastructure systems.

1.3 Policies and Agreements

The following policies and agreements are currently in place to guide and support public works activities during an emergency:

- Oregon Public Works Emergency Response Cooperative Assistance Agreement.
- Oregon Water/Wastewater Agency Response Network (ORWARN)
- Managing Oregon Resources Efficiently Intergovernmental Agreement (MORE-IGA)

2 Situation and Assumptions

2.1 Situation

Damage to public and private property and infrastructure may be unprecedented in an emergency or disaster, including weakened or destroyed structures, homes, public and critical facilities, roads, and bridges. Debris may make transportation routes impassible. Equipment used to repair or otherwise reinforce these structures may also be damaged. A large enough event may adversely affect the ability of local responders to perform their emergency duties.

2.2 Assumptions

- A major emergency or disaster may cause extensive damage to property and infrastructure. Structures may be destroyed or severely weakened. Homes, public buildings, bridges, and other facilities may have to be reinforced or demolished to ensure safety. Debris may make streets and highways impassible. Public utilities may be damaged or be partially or fully inoperable.
- Access to disaster areas may depend upon the re-establishment of ground routes. In many locations, debris clearance and emergency road repairs will be given top priority to support immediate lifesaving emergency response activities.
- Damage assessment of the disaster area will be required to determine potential work load.
- Assistance from the State and Federal government may be needed to clear debris, perform damage assessments and structural evaluations, make emergency repairs to essential public facilities, reduce hazards by stabilizing or demolishing structures, and provide emergency water for human health needs and firefighting.

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- Debris may include trees, rocks, dirt and sand, building materials, metal, garbage and sewage, damaged vehicles, various hazardous materials, tires, and personal property.
- Hazardous chemical, biological radiological, nuclear, and explosive materials will need special handling from appropriately trained and equipped teams.
- Following disasters that cause significant debris, existing disposal sites may not provide effective debris management solutions because of capacity limitations and their need to provide continuous waste management operations for day-to-day debris generation.
- Emergency environmental waivers and legal clearances may be needed for disposal of materials from debris clearance and demolition activities for the protection of threatened public and private improvements.
- Unattended and long-standing debris may pose safety and health threats to the public.
- Water pressure may be low, hampering firefighting and impairing sewer system function.
- Significant numbers of personnel with engineering and construction skills along with construction equipment and materials may be required from outside the disaster area.

3 Roles and Responsibilities

The roles and responsibilities for each department in support of emergency services will vary depending on the type of resource, the length of the warning period, and the duration of the incident.

3.1 Primary Agency

The primary agency for each ESF is assigned based upon the agency's coordinating responsibilities, authorities, functional expertise, resources, and capabilities in managing incident activities. The primary agency may not be responsible for all elements of a function and will work with supporting agencies and cooperating partners to ensure a coordinated response. The primary agency for ESF 3 is DCS.

3.1.1 Department of Community Services

3.1.1.1 Transportation Division

- Perform County transportation program operations on county roads and bridges, including maintenance, repair, engineering, construction of temporary bridges or detours, clearance and disposal of debris, and demolition and removal of items that may come to rest on the county right of way.

3.1.1.2 Land Use and Planning

- Participate in the selection and certification of public or private land to be used as temporary disaster debris sites.

3.2 Supporting Agencies

Supporting agencies for each ESF are those County entities that have substantial support roles during major incidents. Supporting agencies that support ESF 3 include:

3.2.1 Department of County Assets

3.2.1.1 Facilities and Property Management

- Coordinate damage assessment for County facilities.
- Coordinate repair and restoration of County facilities.
- Support temporary debris management site acquisition and operations

3.2.2 Health Department

- Monitor water quality and instigate alerts to the public when water quality issues arise.
- Declare public health emergencies as required to protect the public from debris and other safety hazards.

3.2.3 Multnomah County Emergency Management

- Provides planning support.
- Oversees and activates the County Emergency Operations Center (EOC)
- Ensure 24 hour Duty Officer readiness to employ emergency alert systems and initiate notifications to critical partners.

3.3 Cooperating Agencies

The County is supported by a variety of cooperating agencies that provide support through coordination of emergency functions within their own authority/jurisdiction, or are able to provide additional resources to support County response activities. Cooperating Agencies that support ESF 3 include:

3.3.1 Metro

- Establish and operate regional temporary debris storage and reduction sites during a large scale debris generating event.
- Support regional debris management coordination

3.3.2 City Public Works and Transportation Departments

- Coordinate damage assessment for city infrastructure.
- Coordinate repair and restoration of city infrastructure.
- Coordinate debris management operations within jurisdictional boundaries.

3.3.3 City Building Departments

- Coordinate damage assessment of city buildings.
- Regulate building structural damage assessment activities by other public and private damage assessment teams within the jurisdictional area.
- Support debris management operations by enforcing nuisance and abatement codes and providing regulatory oversight for building and structure demolition requirements.

3.3.4 Water Departments and Districts

- Coordinate damage assessment of water infrastructure.
- Coordinate repair and restoration of water infrastructure.
- Implement emergency water production and distribution capabilities.

3.3.5 Waste Water Departments and Districts

- Coordinate damage assessment of waste water infrastructure.
- Coordinate repair and restoration of waste water infrastructure.
- Implement emergency waste water management capabilities.

3.3.6 Levee and Drainage Districts

- Monitor and assess impacts to flood protection infrastructure.
- Notify emergency management of any threats to flood protection infrastructure
- Develop and maintain district emergency response plans.

3.3.7 Energy Sector

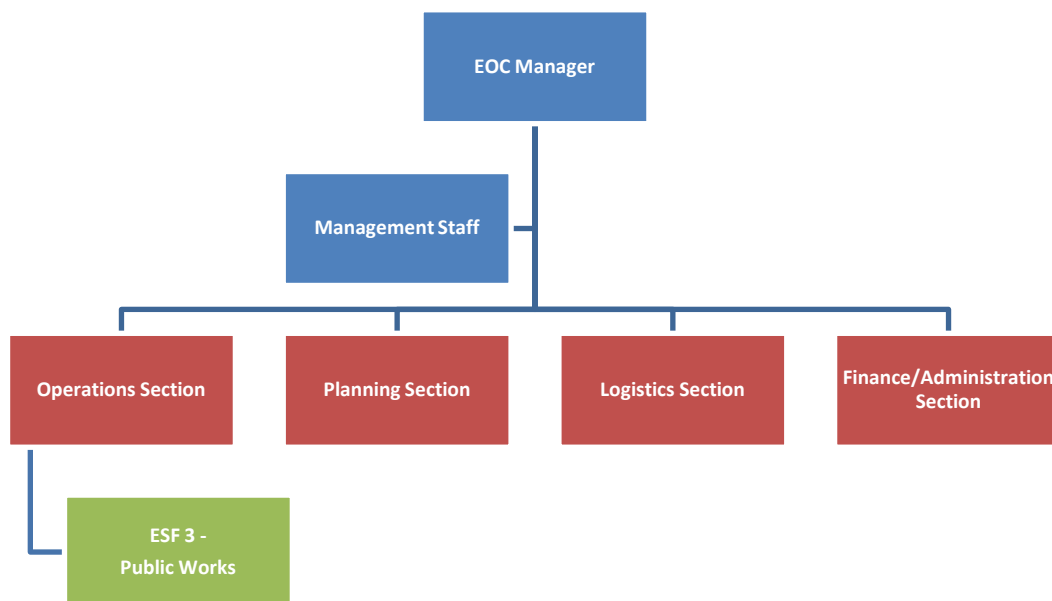
- Coordinate damage assessment of energy infrastructure.
- Coordinate repair and restoration of energy infrastructure.
- Support emergency provision of auxiliary power to critical services.

4 Concept of Operations

4.1 General

- In accordance with the Basic Plan and this ESF Annex, DCS is the primary agency responsible for coordinating public works and engineering activities. Plans and procedures developed by the primary, supporting and cooperating agencies provide the framework for carrying out these activities.
- Requests for assistance with public works and engineering resources will be generated one of two ways: they will be forwarded to the County EOC, or they will be issued in accordance with established mutual aid agreements.
- The County EOC Operations Section Chief, with input from identified primary and supporting agencies, will provide guidance for the coordination of public works and engineering resources.
- If the incident requires additional support for public works operations, the Operations Section Chief may activate ESF 3.
- Public works support requirements that cannot be met at the local level should be forwarded to the State for assistance. If needed, Federal assistance may be requested by the Governor.

Table 1 Multnomah County ESF 3 Organization



4.2 Notifications

- The Duty Officer will notify DCS and supporting agencies of EOC activations and request that representatives report to the EOC to coordinate public works and engineering activities and staff ESF 3 if activated.
- As additional EOC staffing needs become apparent, other support and partnering agency personnel may be asked to report to the EOC to assist with public works and engineering activities.

4.3 Actions by Phase of Emergency Management

4.3.1 Preparedness

- Maintain an inventory of available resources, including personnel and training within each department.
- Develop and maintain plans and procedures for emergency and disaster situations.
- Develop and maintain mutual aid agreements with neighboring jurisdictions and the private sector.
- Coordinate emergency planning activities and information with neighboring jurisdictions.

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- Maintain and test communication systems.
- Identify vital and essential roadways, bridges and facilities to establish a repair priority in the event that any of these become damaged.
- Ensure that personnel are trained in emergency responsibilities.
- Establish contact with private resources that could provide support during an emergency.

4.3.2 Response

- Provide a senior official to operate from the EOC or other command location to ensure coordination with other agencies, as necessary.
- Provide public works and engineering support on a priority basis as determined by the EOC and the Incident Commander(s).
- Inspect damage to streets, bridges, and buildings; public and private.
- Clear roads to facilitate emergency operations.
- Close roads and construct barricades as directed.
- Make recommendations regarding the priority of repairs.
- Request outside assistance from surrounding jurisdictions and the private sector as required.
- Conduct other response actions as dictated by the situation.
- Maintain records and document all expenditures during the emergency situation.

4.3.3 Recovery

- Continue to repair infrastructure and buildings on a priority basis.
- Continue all activities in coordination with the EOC based on the requirements of the incident.
- Provide information concerning dangerous areas or other existing problems.
- Provide liaison between local agencies and Federal damage assessment activities.

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- Establish control measures related to emergency solid waste disposal.
- Participate in after-action reports and critiques.
- Document disaster and restoration cost for possible Federal reimbursement.

4.3.4 Mitigation

- Identify and seek funds for retrofitting critical facilities and providing auxiliary power.
- Recommend changes in planning, zoning, and building codes to prevent or lessen the effect of future disasters.
- Participate in the hazard identification process and identify and correct vulnerabilities in the public works system.
- Regularly maintain equipment to ensure it is in good running order.

4.4 Access and Functional Needs Population

The County will seek technical assistance to ensure that accessibility standards are addressed during infrastructure restoration and activities. Existing plans and procedures will be used to reestablish critical human services for children as well as others with access and functional needs.

5 ESF Annex Development and Maintenance

DCS will be responsible for coordinating regular review and maintenance of this ESF Annex. Each primary and supporting agency will be responsible for developing plans and procedures that address assigned tasks.

6 Supporting Documents

The following documents are currently in place:

Multnomah County

- Multnomah County Disaster Debris Management Plan
- DCS Road and Bridge Incident Response Inspection Plan
- Multnomah County Damage Assessment Plan (Under development)

State of Oregon

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- State of Oregon Emergency Operations Plan
 - ESF 1 – Transportation
 - ESF 12 – Energy
- State of Oregon Recovery Plan
 - State Recovery Function 6 – Infrastructure Services
- State of Oregon Debris Management Plan
- Oregon Department of Transportation Emergency Operations Plan

Federal

- National Response Framework
 - ESF 1 - Transportation
 - ESF 3 – Public Works and Engineering
 - ESF 12 – Energy
- National Disaster Recovery Framework
 - Recovery Support Function – Infrastructure Services

7 Appendices

None at this time.