

ESF 3 Public Works and Engineering

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1 Introduction: Purpose and Scope

Emergency Support Function 3 provides and coordinates infrastructure and engineering services during all phases of EM. Resources included in ESF 3 (personnel, equipment, facilities, materials, and supplies) will be coordinated through the County ECC 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, may be used to 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, electrical, natural gas, and storm water systems).
- Stabilization of damaged public and private structures to facilitate search and rescue and/or protect the public's health and safety.
- 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 impact assessments of infrastructure.

2 Policies and Agreements

Marion County EM has established the following service and equipment agreements with local, State, and regional entities. These agreements are on file with Public Works. They will be made available at the County ECC during an emergency incident.

3 Situation and Assumptions

3.1 Situation

Marion County has identified critical infrastructure and resources to be protected and prioritized during an emergency event or disaster to the extent possible. During an emergency situation, the protection of human lives will take precedent during all facets of response, and essential services within the County will be maintained as long as conditions permit.

3.2 Assumptions

Response operations for public works agencies will include assisting police and fire in traffic control and rescue operations, in addition to clearing and maintaining critical lifeline routes. In a natural hazards event such as, flood, windstorm, or earthquake response, public works agencies will generally be assigned or assume the lead agency role.

Marion County Public Works Environmental Services is responsible for managing a debris disposal program, which would include the disposal of large amounts of debris created by a major windstorm, earthquake or volcanic eruption. Additionally, the following resources are available:

- As of May 2005, the Browns Island landfill has approximately 235,000 cubic yards of disposal capacity.
- Local waste recyclers have indicated their willingness and ability to assist the County in disposing of disaster debris (concrete, metal, brick, wood and mixed waste/garbage).
- The Mid-Valley Garbage and Recycling Association has approximately 600 “drop boxes” available for a total capacity of nearly 18,000 cubic yards. However, they are not able to forecast how many would be available at the time of a major disaster.

Based on Oregon Department of Geology and Mineral Industries research outlined in “Special Paper 29,” dated 1999, Marion County could expect 664,000 tons of debris from an 8.5 Cascadia subduction zone event. Based on research on the January 1994 Northridge, California, 6.7 (Richter) event, percentages of this 664,000 tons could be the following:

Debris Material Type	% Of Total	Tons
Concrete	69.5	461,480
Brick	1.6	10,624
Dirt	17.0	112,880
Wood	4.0	26,560
Metal	0.4	2,656
Rubble	4.5	29,880
Trash	3.0	19,920
Total	100	664,000

Local recyclers could handle approximately 92.5% of the total estimated 664,000 cubic yards of debris. Local landfills could absorb the remaining amount 7.5% that could not be recycled. Temporary staging/storage areas could be set up at the Browns Island and North Marion landfills for debris waiting to be recycled. Reference the Marion County Debris Management Plan.

4 Roles and Responsibilities

LEAD AGENCY

Marion County Department of Public Works, for infrastructure.
 Division of Environmental Services, for debris management.

SUPPORT AGENCIES/ENTITIES

Private or Non-governmental Organizations

Marion County Amateur Radio Emergency Services
 Local contractors

City/Special Districts

Local Public Works Departments
 Local Police Departments
 Waste Water Treatment Facilities
 Water Treatment and Delivery Systems

County

Marion County Department of Public Works, Environmental Services
 Marion County Emergency Management
 Marion County Sheriff’s Office
 Marion County Health Department
 Marion County Solid Waste Management
 Marion County Juvenile Department

State (available without request through OERS)

Oregon Department of Transportation

Federal

U.S. Army Corps of Engineers

The Marion County Department of Public Works is responsible for the overall coordination of engineering and public works services supporting emergency response and recovery. The director or designee assigns resources and personnel to respond and recover from any disaster or transportation emergency.

The Marion County EMD is responsible for the overall coordination and management of resources during any type of event, while ensuring support is provided to all ESF coordinators and command staff throughout the duration of an incident. If environmental or human health concerns arise during response or recovery, the Marion County Health Department will provide consultation, support staff, and other needed resources or services to assist in ESF 3-related operations.

5 Concept of Operations

5.1 Direction and Control

All activities and resources in support of ESF 3 will be coordinated by the County ECC and managed using the ICS. ESF 3 comprises two core functions: infrastructure operations and debris management. The Marion County Department of Public Works is the lead agency for infrastructure operations, and the Environmental Services Division is the lead for solid waste (debris) management. These two agencies will support each other, with coordination assistance from Emergency Operations Organization.

Public Works will be represented in the ECC by the Resource Coordinator. This individual will be a member of the ECC management team, supporting infrastructure restoration and logistical operations, handling Public Works-related communications of information, and processing requests for Public Works resources. Similarly, the Environmental Services Division will deploy a liaison to the ECC to coordinate debris management operations and to serve as a point of contact for related matters.

5.2 Infrastructure Operations

When Public Works services are needed in an incident response, an Incident Command Post (ICP) or Department Operations Center may be established at the County Shops. The ICP/Department Operations Center shall coordinate closely with the ECC regarding the status of emergency response activities. Public Works will use local contractors to supplement its organic emergency response capabilities, escalating unmet needs through the County ECC and/or mutual aid partners.

Public Works will focus on restoring vital lifeline systems to the community, with an emphasis on critical bridges and roads. Public Works will also place emphasis on supporting law enforcement and fire-rescue with evacuation and traffic control capabilities. Other operational priorities will be as follows.

- Damage assessment;
- Stabilization of damaged public and private structures to facilitate search and rescue and/or protect the public's health and safety;
- Identification and labeling of uninhabitable/unsafe structures;
- Coordination of the closure and repair of transportation infrastructure;
- Repair and restoration of damaged public systems (e.g., water, wastewater, and stormwater systems);
- Coordination with utility restoration operations (power, gas, telecommunications); and
- Prioritization of efforts to restore, repair, and mitigate city and county-owned infrastructure.

5.3 Debris Management

Disaster debris may include construction and demolition debris, vegetative matter, mixed waste, and other materials. The Environmental Services Division may establish an ICP and/or Department Operations Center to direct field operations, coordinating with the Environmental Services Division liaison in the ECC. The Environmental Services Division will rely upon County assets to clear public rights-of-way and to assure access to other critical assets. Private property owners will be responsible for clearing their own properties. Where the private sector is called upon to supplement County capabilities, local waste collector/haulers and recyclers will be used to the maximum extent possible (operators may obtain assistance from other collectors throughout the region). City, County and state government agencies will have cleanup responsibility for roads within their respective jurisdictions and for pre-establishing any disposal agreements with local haulers and recyclers.

In addition to debris removal and disposal, Environmental Services Division will be responsible for working with the PIO to inform the public of disposal procedures and locations and to encourage recycling.

6 Supporting Plans and Procedures

Reference Marion County Debris Management Plan