

EMERGENCY SUPPORT FUNCTION #3

PUBLIC WORKS AND ENGINEERING

Formerly ESF-3 Public Works and Engineering

ESF-12 Energy

ESF-33 Solid Waste Management

Administrative Revisions Only – May 2011

LEAD: Public Works
Resource Stewardship

SUPPORT: Emergency Management
Public Health & Social Services - Environmental Health
Central Services
Puget Sound Energy
LOTT
Public Utilities and Private Purveyors

I. INTRODUCTION

A. Purpose

To provide guidance for the emergency coordination of public works and engineering services for unincorporated Thurston County. To provide for the effective utilization of available water and wastewater resources to meet essential needs in Thurston County during an emergency or disaster, and to provide for the restoration of utilities affected by the emergency or disaster. To provide for the removal, recycling, and disposal of solid waste including debris, wreckage, and household hazardous materials following a disaster.

B. Scope

This ESF addresses necessary public works and engineering activities including, but not limited to: demolition of unsafe structures; debris and wreckage clearance; temporary repair of essential facilities; inspection of facilities for structural condition and safety; assessing utilities damage, supply, demand, and requirements to restore such systems; helping utilities obtain equipment, specialized labor, and transportation to repair or restore systems; assisting in traffic control by providing barricades and signs as necessary to cope with an emergency/disaster; and providing emergency solid waste management activities including collection, transportation, disposal, and emergency worker assistance.

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II. POLICIES

- A. The Thurston County priority will be to protect lives and public property including critical utility lifelines and the environment.
- B. Thurston County may collect for any costs incurred by its authorized representatives, contractors, and sub-contractors in carrying out any necessary work on property needed to protect public health and safety, including debris removal, demolition of unsafe or abandoned structures, removal of debris and wreckage, and administration costs. The collection of these costs and penalties may include billing the owner or placing a lien on the property and withholding further permits to the permittee or property until the penalties are paid.
- C. Permitting fees and normal inspection procedures will stay in effect following a disaster unless otherwise directed by the Board of County Commissioners.
- D. Debris from earthquake damaged structures usually contains reclaimable property, valuables, and mementos of disaster victims. Victim reclamation of damaged property should be accommodated as a priority consistent with health and safety.
- E. It is the policy of Thurston County to provide public works services to lands and facilities under county jurisdiction. Other services to private property, such as debris collection or fee adjustments, may be offered on a case by case basis by the Disaster Policy Advisory Group or the Board of County Commissioners.

III. PLANNING ASSUMPTIONS

- A. 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 impassable. Public utilities may be damaged or be partially or fully inoperable.
- B. Access to disaster areas may be dependent 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.
- C. Damage assessment of the disaster area will be required to determine potential work load.
- D. Thurston County will utilize the inspection guidance in the Applied Technology Council, ATC-20-1, field manual for post earthquake safety evaluation of buildings, to survey damaged buildings for safety.

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- E. Assistance from the federal government may be needed to clear debris, perform damage assessments, 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.
- F. 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.
- G. Significant numbers of personnel with engineering and construction skills along with construction equipment and materials may be required from outside the disaster area.
- H. Aftershocks will require re-evaluation of previously assessed structures and damages.
- I. A severe natural disaster or other significant event can sever key utility lifelines, constraining supply in impacted areas, or in areas with supply links to impacted areas, and also affect fire fighting, transportation, communication, and other lifelines needed for public health and safety.
- J. There may be widespread and/or prolonged electric power failure. With no electric power, communications may be affected and traffic signals may not operate, which could lead to transportation gridlock.
- K. There may be extensive pipeline failure in water, wastewater, and gas utilities. These may take hours, days, or even weeks to repair.
- L. Water pressure may be low, hampering firefighting and impairing sewer system function.
- M. Thurston County departments, under Emergency Proclamation, may need the authority to go on private property to evaluate and repair utilities that jeopardize public and private property or threaten public health or the environment.
- N. In the aftermath of floods, fires, windstorms, or earthquakes, solid waste debris can impact emergency responders, delay repair and reconstruction, and pose a threat to the public, health and safety, and the environment.
- O. If Thurston County removes solid waste, or orders it removed, it may be a FEMA reimbursable expense.
- P. If private property owners remove solid waste debris, they are normally responsible for all costs, including landfill tipping fees, which may be covered by insurance.

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- Q. Several years of landfill capacity may be used up by a disaster. Loss of landfill capacity will have an impact on the rates charged customers. Rates will increase depending on how much debris waste is disposed in the landfill.
- R. Debris removal may have environmental consequences including erosion or landslides, falling trees or structures, and the release of asbestos or other contaminants.
- S. County, state, and federal environmental regulations (air quality, landfill, solid waste handling, etc.) may severely limit options in solid waste removal and disposal.

IV. CONCEPT OF OPERATIONS

A. Local

1. The Thurston County Public Works Director and the Resource Stewardship Director or their designees will serve as the primary coordinators of the public works and engineering function for Thurston County. When the Emergency Coordination Center (ECC) is activated, they will send a representative to coordinate activities. Other county departments may be contacted to provide manpower, equipment, or technical advice.
2. Communications to Public Works and Resource Stewardship field personnel will be accomplished by the most efficient means.
3. Supplemental public works assistance may be requested through normal mutual aid channels or through the ECC.
4. The Resource Stewardship department is the lead agency for coordinating the inspection of structures in unincorporated Thurston County after a disaster to determine building safety and health issues. This will be a cooperative effort with other departments and jurisdictions, and with assistance from private sector engineers.
5. The Resource Stewardship department is the lead agency for the Thurston County permitting system in coordination with Public Works and Public Health & Social Services - Environmental Health.
6. Resource Stewardship responds to disasters in three phases:

Phase 1 Initial Damage Assessment

Provide teams of inspectors to sweep affected areas and report to the ECC.

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Phase 2 Emergency Permitting and Inspections

Expedite Permit Assistance Center and field operations for emergency operations to:

- a. Review damages and assist application process
- b. Issue permits
- c. Permit construction
- d. Provide final inspections

Phase 3 Abandoned Buildings

- a. Identification
- b. Inspection
- c. Demolition
- d. Legal process

7. State and local government may contract with the Associated General Contractors of America to provide inspection services, heavy equipment and trained operators to supplement emergency engineering efforts under "Plan Bulldozer." During the time "Plan Bulldozer" is in use, operations will be performed at cost under a disaster relief contract. (Reference Washington State Comprehensive Emergency Management Plan.)
8. Water supply systems within the county are either publicly or privately owned and are organized at municipal or local private levels. Since these systems are not normally interconnected, emergency planning for water utilities is concerned with restoration efforts.
9. To the maximum extent possible during a disaster, utility and energy systems will continue to provide services through their normal means.
10. Energy and utility resources will be used to meet immediate local needs. If shortages exist, requests to meet needs will be submitted through normal emergency management channels. Actions may be taken to curtail use of energy, water or other utilities until normal levels of service can be restored or supplemented. These resources, when curtailed, will be used to meet immediate and essential emergency needs (e.g. hospitals, etc.).
11. Energy and utility information will be furnished to emergency government officials at all levels to inform the public on proper use of services.
12. As needed or requested, energy and utility representatives will compile post-emergency damage assessment reports and transmit them to Emergency Management.

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13. Solid waste cleanup is an essential component to terminating emergency conditions.
14. Coordination of emergency solid waste management is the responsibility of Public Works, Public Health & Social Services - Environmental Health, Emergency Management, and other related support departments.
15. Emergency solid waste management is usually an incremental process:
 - A. Solid waste debris removal from streets to provide access.
 - B. Removal of hazardous and/or moderate risk waste.
 - C. Solid waste debris removal of damaged public structures.
 - D. Salvaging or recycling of solid waste.
 - E. Expedite the permits and inspections required for repairing, rebuilding, or demolition of damaged structures.
16. Emergency workers and volunteers may need to be assigned to solid waste debris cleanup. They must be provided with:
 - A. Hard hats, safety goggles, approved dust respirators, as necessary.
 - B. Other personal protective equipment for specific tools and equipment.
 - C. Drinking water, portable toilets, and hand washing facilities.
 - D. Training and supervision.
 - E. Blood-borne pathogens protective and decontamination equipment as needed.

B. State

1. Washington State Emergency Management alerts appropriate state agencies of the possible requirements for emergency engineering services, coordinates state assets and requests federal assistance to support local emergency engineering efforts. State departments/agencies that support the emergency engineering effort are identified in the Washington State Comprehensive Emergency Management Plan.
2. State government will provide engineering services primarily to lands and facilities under its jurisdiction and will lend support to local government as

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requested and as circumstances allow. Supplemental assistance shall be requested through local and state emergency management channels.

C. Federal

1. The National Response Framework, ESF-3 - Public Works and Engineering provides for the federal response and support to assist state and local government. The primary federal agencies are the Department of Defense (DOD)/U.S. Army Corps of Engineers and the Department of Homeland Security/Federal Emergency Management Agency for planning, preparedness, and response with assistance to be provided by other branches as needed. In the event of federal activation, Thurston County will coordinate with other local, state, and federal agencies.
2. If direct federal assistance has been authorized by the President under an Emergency or Major Disaster Declaration, FEMA may issue a mission assignment to those federal agencies possessing the needed expertise or assets, only when it is verified to be beyond the capability of the affected state and local governments.

V. RESPONSIBILITIES

A. Local

1. Public Works

- a. Provide inspections of county roads and bridges to determine damage and safety.
- b. Remove debris and wreckage from roads and bridges.
- c. Designate usable county roads and bridges.
- d. Provide temporary repair of damaged county roads and bridges, if possible.
- e. Establish and/or maintain evacuation routes as directed by ECC or Thurston County Sheriff's Office.
- f. Provide road block barricades, signs, and flaggers as requested.
- g. Coordinate public information releases with the Public Information Officer.
- h. Provide sand and gravel.

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- i. Provide trucks and drivers to transport debris and wreckage.
- j. Provide flood control support.
- k. Coordinate drainage activities.
- l. Coordinate county-wide disaster transportation needs.
- m. Coordinate with other political jurisdictions.
- n. Coordinate with private contractors and suppliers.
- o. Relocate Public Works shops if conditions warrant
- p. Document damages and costs.
- q. Provide management of emergency solid waste removal, disposal, and recycling; coordinate with Environmental Health on the collection and disposition of household hazardous goods.
- r. Provide emergency operation of county landfill, transfer stations, and coordinate long-haul transportation.
- s. Coordinate with the ECC to formulate emergency policies and regulations regarding solid waste collection and disposal for private citizens.
- t. Coordinate with other agencies the disposal of hazardous materials.
- u. Provide staff to weight and document solid waste at the county landfill and other drop-box facilities in the county.
- v. Provide record keeping for recovery of disaster funds.
- w. Coordinate with the Public Information Officer to provide information to the public.
- x. Coordinate the long-haul transportation and disposal of debris outside of Thurston County.
- y. Manage contracts for private company collection, salvage rights, and recycling of solid waste debris.

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2. Resource Stewardship

- a. Coordinate damage assessment and post disaster safety inspections of county buildings and facilities. Coordinate post-earthquake ATC-20 inspections.
- b. Coordinate damage assessment and post disaster safety inspections of private businesses in the county.
- c. Coordinate private assessment and inspection resources.
- d. Coordinate emergency permitting and inspection process for private cleanup work to ensure compliance with cleanup standards and procedures. Expedite permitting and required inspections as appropriate and feasible.
- e. Provide for the demolition of damaged and/or abandoned structures posing a threat to human safety.
- f. Provide damage assessment of disaster area regarding debris and wreckage. Coordinate expeditious removal of debris and other non-hazardous materials.
- g. Assess and make recommendations for environmental damage to streams, bluffs, shore lines, and river banks.
- h. Review repair, reconstruction, and replacement of structures for compliance with building, land use, and environmental regulations.
- i. Coordinate with the ECC and Public Information Officer on public information.
- j. Inspectors may distribute public repair and recovery information.
- k. Document damages and costs, and provide necessary reports.
- l. Coordinate storm water and drainage needs and designs with Public Works.

3. Emergency Management

- a. Coordinate ECC activation and call-out of essential representatives.
- b. Coordinate roads, facility, and infrastructure recovery efforts.

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- c. Coordinate requests for outside labor, equipment, and technical experts. If additional resources are needed, coordinate volunteer, state and federal support.
- d. Issue warnings to the public.
- e. Coordinate public information and warnings.
- f. Identify and recommend training opportunities for public works and engineering personnel (such as ATC-20 Post Earthquake Damage Assessment Training).
- g. Maintain liaison with local utilities, including the ability to contact on a 24-hour a day basis.
- h. Coordinate assistance to support local utility and energy providers, as requested.
- i. Coordinate all public information and instructions and media relations as defined in ESF-15 External Affairs.

4. Public Health & Social Services – Environmental Health

- a. Coordinate inspections of septic systems.
- b. Coordinate safety of food and water supplies.
- c. Provide for testing of wells and water supplies.
- d. Provide permitting and monitoring of county landfill and other solid waste sites.
- e. Monitor unpermitted dumping.
- f. Advise on collection and disposal of household hazardous waste.
- g. Coordinate all public information releases through the Thurston County Public Information Officer.

5. Central Services

- a. Prioritize restoration of essential county facilities.
- b. Provide fuel storage.
- c. Repair equipment.

6. Public Utilities and Private Purveyors

- a. Maintain and control water, sewer, and solid waste systems within their jurisdictions.
- b. Perform damage assessment on systems and identify problems or shortfalls in water supply. Report findings to the ECC.
- c. Regulate water and utility usage in times of shortages as appropriate, assuring priority use set to meet immediate and essential emergency needs.
- d. Within available means, protect existing water supplies and restore damaged systems.
- e. Continue to operate in the tradition of self-help and interservice mutual aid before calling for area, regional, or state assistance.
- f. In conjunction with the ECC operations, determine priorities among users if adequate utility supply is not available to meet all essential needs.
- g. Provide information necessary for compiling damage and operational capability reports.
- h. Identify potential areas for mitigation strategy.

B. State Emergency Management

1. Alerts appropriate state agencies of the possible requirement to supplement local energy and utility needs.
2. Coordinates with the Utilities and Transportation Commission to provide supplemental assistance to local government.

C. Federal Emergency Management Agency (FEMA)

Coordinates the activities of federal agencies having supplemental energy and utility resources capabilities during a presidentially declared emergency or disaster.

VI. REFERENCES

- A. National Response Framework ESF-3
- B. Washington State Comprehensive Emergency Management Plan ESF-3

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- C. Plan Bulldozer of the Associated General Contractors of America
- D. Thurston County Solid Waste Management Plan
- E. WAC 173-351 Regulations regarding Solid Waste Handling and Disposal