

ESF-14

PUBLIC WORKS & ENGINEERING

CONTENTS	PAGE
I. PURPOSE	ESF 14.1
II. SITUATIONS AND ASSUMPTIONS	ESF 14.1
A. Situations	ESF 14.1
B. Assumptions	ESF 14.1
III. CONCEPT OF OPERATIONS	ESF 14.2
A. General	ESF 14.2
B. Operational Time Frames	ESF 14.2
IV. ORGANIZATION AND ASSIGNMENT RESPONSIBILITIES	ESF 14.4
A. Primary Agencies	ESF 14.4
B. Support Agencies	ESF 14.5
C. State Primary Agency	ESF 14.5
D. Federal Primary Agency	ESF 14.6
V. DIRECTION AND CONTROL	ESF 14.6
VI. CONTINUATION OF GOVERNMENT	ESF 14.6
VII. ADMINISTRATION AND LOGISTICS	ESF 14.6
VIII. ESF DEVELOPMENT AND MAINTENANCE	ESF 14.7
IX. REFERENCES	ESF 14.7
APPENDICES	
1. Organizational Charts	Vol B
Greene County Highway Department	Vol B
Springfield Public Works	Vol B
2. Equipment Lists	Vol B
3. SOP for Emergency Repairs	Vol B
4. Mutual Aid Support to the Missouri Department of Transportation	Vol B
5. Procedures for Handling Gasoline and Other Flammable Material Releases to City Sanitary Sewer Lines	Vol B

ESF-14

PUBLIC WORKS & ENGINEERING

PRIMARY AGENCIES:	Springfield Public Works County Highway Department	Building Development Services County Resource Management
SUPPORT AGENCIES:	Office of Emergency Management (OEM) County Fire Departments Sheriff's Department Health Department American Red Cross (ARC) Missouri National Guard	Police Department Parks Department Purchasing Department Civil Air Patrol (CAP)

I. PURPOSE

The purpose of the ESF is to provide Public Works and Engineering support for assistance in life-saving support or disaster relief through engineering services, technical evaluation, inspection, damage assessment, debris clearance and disposal, restoration of transportation facilities and flood control associated with a catastrophic disaster. This ESF will organize local public works resources in such a manner that they will be able to perform the many tasks that are essential to an effective emergency (disaster) response.

II. SITUATION AND ASSUMPTIONS

A. Situation

1. Springfield/Greene County is subject to many types of hazards (**see Hazard Mitigation Plan**). Public works could become involved in any of these and could be asked to perform any of a large number of assignments.
2. The City is served by the Public Works Department and the County is served by the Highway Department and Resource Management.
3. Private resources are available in the City/County to assist in public works activities.
4. Outside resources are available to assist should all local resources become committed.

B. Assumptions

1. Local public works departments would not have adequate resources to cope with the situation should a major disaster occur.
2. Local private resources should be adequate to supplement public resources.
3. State and federal assistance will respond when called upon.
4. When a disaster occurs, all public works equipment and personnel will be available for response or all available public works resources will be committed and additional help may be needed to complete the mission.
5. There will be numerous incidents occurring simultaneously in separate locations.
6. Ground routes and transportation must be provided to allow access to disaster areas so

emergency road repairs and debris clearance will have top priority to support immediate lifesaving emergency response activities.

7. Rapid damage assessment of the disaster area will be necessary to identify target areas and potential workloads.
8. Emergency environmental waivers and legal clearance will be needed for disposal of materials from debris clearance and demolition activities.
9. Secondary events or disasters may threaten lives, property and infrastructures.

III. CONCEPT OF OPERATIONS

A. General

1. The ultimate responsibility for providing public works services rests with local government.
2. During a declared emergency (**ESF-1, Appendix 2**), the public works will coordinate activities with the EOC or the site commander.
3. This ESF includes:
 - a. Support of technical engineering, construction management, damage assessment, and storm water evaluation through inspection, response and emergency contracting to minimize loss to transportation and drainage services.
 - b. Support emergency clearance of debris for reconnaissance of damaged areas and passage of emergency personnel, supplies and equipment for lifesaving, life protection, health, and safety purposes during immediate response phase.
 - c. Temporary clearing, repair or construction of emergency access routes which include damaged streets, roads, bridges, waterways, drainage systems, airports and any other facilities necessary for passage of rescue personnel.
 - d. Emergency demolition or stabilization of damaged structures and facilities designated by state or local government as immediate hazards to public health and safety, or as necessary to facilitate the accomplishment of lifesaving operations

B. Actions to be Taken by Operational Time Frames

1. Mitigation

- a. With the potential hazards (**see Hazard Mitigation Plan**) that could affect Greene County, identify:
 - (1) Special procedures that need to be developed.
 - (2) Vulnerabilities in the public works system.
- b. Train personnel in emergency procedures.
- c. Review all other ESFs of this plan to clarify public works roles.
- d. Develop emergency procedures to include, but not limited to, the following:
 - (1) Call-up lists

- (2) Priorities for debris removal
 - (3) Priorities for road and bridge repairs
 - (4) Damage assessment/control
 - (5) Priorities for flood control and snow removal
 - (6) Garbage/Debris disposal
 - (7) Evacuation
 - (8) Sheltering of personnel and equipment
 - (9) During evacuation, assistance to Law Enforcement for Traffic Control
 - (10) Support to other agencies
- e. Establish contact with private resources that could provide support during an emergency.
 - f. Participate in drills, tests, and exercises to include critique and follow-up actions.

2. Preparedness

- a. When advised of a potential hazard, check status of:
 - (1) Personnel
 - (2) Equipment
 - (3) Supplies
 - (4) Facilities
- b. Activate call-up plans
- c. Establish contact with the EOC.
- d. Ensure protection of all public works personnel and equipment.
- e. Ensure all vehicles and equipment are fueled.
- f. Move resources and material to selected, secure locations for pre-positioning to be prepared to respond after the event. Maintain increased readiness status until the situation escalates or stand-down is given.

3. Response

- a. Provide support on a priority basis as determined by the EOC or the Incident Commander.
- b. Clear roads to facilitate emergency operations.
- c. Survey public works damage and report to the EOC.
- d. Assist Law Enforcement with traffic control by regulating traffic lights. Close roads and construct barricades as directed.
- e. Make recommendations to the EOC on:
 - (1) Priority of repairs;
 - (2) Outside assistance required.
- f. Assist in search and rescue operations as required under the direction of the fire services.
- g. Primary agency personnel from this ESF will be members of damage assessment teams (**ESF-6**). Besides assessing damage, these personnel will review damaged structures and facilities to determine whether they pose a threat as an immediate hazard to the health and safety of the public. If these damaged items are deemed threats, they will be prioritized for demolition, stabilization or repair as deemed appropriate by current ordinance, ruling, order or law.
- h. Emergency debris removal efforts will focus on clearing major transportation routes to allow for the movement of emergency vehicles, traffic, and emergency resources and supplies. After major routes are cleared, debris will then be

- i. removed from secondary routes, residential neighborhoods, and public parks.
Assist in estimating the total population exposed to the emergency.

4. Recovery

- a. Determine the safety of the Emergency Operations Center and any Mass Care Centers as necessary.
- b. Repair public works and buildings on a priority basis.
- c. Establish debris management procedures.
- d. To minimize impact on landfill capacity, alternative means of disposal will be used when applicable, (i.e., wood and vegetative debris: burned or chipped, appliances: stockpiled until necessary arrangements can be made for disposal, demolition or construction debris should be separated and disposed of accordingly, household garbage: taken to landfill).
- e. The storage and/or disposal of hazardous materials will be done in such a manner so as to protect water supplies.
- f. Support potable water distribution and sanitary facilities, if necessary.
- g. Provide sign-age on roads to food, water and ice distribution points.
- h. Support decontamination, as necessary.
- i. Participate in after-action reports and critiques.
- j. Make necessary changes in plans and procedures.
- k. Recommend changes in planning, zoning, and building codes to mitigate future disasters.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Primary Agencies:

Springfield Public Works/Greene County Highway Department

- 1. The Public Works Director or his/her designee will act as the Public Works Coordinator for the City of Springfield.
- 2. The County Highway Department Administrator or his/her designee will function as the Public Works Coordinator for Greene County.
- 3. The County Highway Department Administrator and the Springfield Public Works Director are responsible for ensuring that the streets and roads are cleared of debris and are maintained in good working condition in their respective jurisdictions.
- 4. The County Highway Department and Springfield Public Works will assist other agencies as applicable (i.e., using heavy equipment to assist with rescue operations)
- 5. The County Highway Department and Springfield Public Works will handle issues related to management and disposal of debris.
- 6. Maintain records of the cost of supplies, resources and man hours needed to respond to the disaster event.

Building Development Services/Greene County Resource Management

- 1. The Building Development Services Director will act as Engineering Coordinator for the City of Springfield.
- 2. The Resource Management Administrator will act as Engineering Coordinator for Greene County.
- 3. The Building Development Services Director and the Resource Management Administrator are responsible for ensuring that buildings, other critical structures and facilities are inspected to determine if they pose a threat as a hazard to the health and safety of the public.
- 4. This function may require extensive interaction with other departments such as Fire and Law Enforcement to gather information about damage areas.
- 4. Maintain records of the cost of supplies, resources and man-hours needed to respond to the disaster event.

B. Support Agency:

Office of Emergency Management

1. Maintain EOC readiness in the event of a disaster involving the use of this ESF.
2. Staff debris management “hotlines” in conjunction with Public Information (**ESF-4**) to assist with debris and damage assessment collection information.
3. Coordinate with all Primary and Support Agencies to ensure they have all appropriate and needed resources.

Springfield Fire Department/Greene County Fire Departments

1. Identify routes that need to be cleared to allow emergency response vehicles to operate.
2. Upon request, supervise mass burn sites in accordance with all appropriate state and local requirements to ensure safe burning of applicable debris, subject to amendments by the Health Department, Fire Marshal, and MODNR.
3. Operate Public Works dump trucks or other heavy equipment in hazardous materials “hot zone” if required (**ESF-12**). Greene County Highway Department personnel will operate heavy equipment in “hot zone” areas for applicable County fire departments.
4. Provide emergency response personnel and equipment as needed to assist Public Works effort.

Springfield Police Department/Greene County Sheriff’s Department

1. Establish control within damaged areas, setup perimeter around effected area(s).
2. Direct traffic around closed areas and along evacuation routes.

Springfield/Greene County Parks Department

1. Coordinate the debris removal, staging, holding, and storage areas.
2. Identify areas for staging and holding debris.
3. Provide personnel and equipment for debris removal and other restoration activities.
4. Conduct damage assessment for all Parks and Recreation related facilities, including debris removal, and protective measures.
5. Coordinate the logistics and management of debris disposal, storage, burning, etc.

Springfield/Greene County Health Department

Regulate the disposal of contaminated foodstuff in coordination with other agencies.

Springfield/Greene County Purchasing Departments

Prepare contracts ahead of an emergency to clear the way for emergency purchase orders to be issued for supplies and materials, debris removal and hauling, and rental equipment.

Civil Air Patrol (CAP)

Provide aerial reconnaissance for damage inspection and overall assessment of damage area.

American Red Cross

Coordinate any needs for clearance routes to Mass Care Shelters with Primary Agencies.

C. State Primary Agency

Missouri Department of Natural Resources (MODNR)

1. Coordinate environmental issues with personnel from Primary Agencies.
2. Secure necessary emergency environmental waivers and legal clearances for debris clearance and disposal.

Missouri Department of Transportation (MODOT)

Coordinate road clearance and repair priorities with Primary Agencies.

Missouri State Highway Patrol (MSHP)

If available and appropriate, provide aerial support services for aerial damage surveys post impact.

Missouri National Guard

If available and appropriate, provide use of heavy equipment and personnel for rescue and debris management operations. Utilize engineering personnel to provide expertise with structural inspections.

D. Federal Primary Agency

Department of Defense, U.S. Army Corps of Engineers

Supplement State and local emergency response actions by providing technical advice and evaluation, engineering services, contracting for construction management, inspection, contracting for the emergency repair of water and wastewater treatment facilities, potable water, ice, emergency power and real estate support.

V. DIRECTION AND CONTROL

- A. All public works response and recovery efforts will be coordinated through the Incident/Unified Command System (UC/ICS) and through the EOC.
- B. The directors/representatives of the County (Resource Management and Highway Department) City Public Works departments will relocate to the EOC, if needed. Communications for the Public Works, Greene County Highway, and Resource Management personnel in the field will be provided by their own radio-equipped vehicles and will keep their Public Works' Coordinators updated on their operations through their EOC.
- C. Outside resources will be under the direct control of the agency supervisors, but will be deployed by the EOC and controlled by the on-site commanders.

VI. CONTINUITY OF GOVERNMENT

A. Lines of succession

1. Greene County

- a. County Highway Department Administrator
- b. County Highway Department Assistant Administrator
- c. As assigned by the Greene County Commission

2. Springfield

- a. Public Works Director
- b. Assistant Director of Public Works-Operations
- c. Superintendent of Street Operation
- d. As assigned by the Mayor/City Manager

VII. ADMINISTRATION AND LOGISTICS

A. Administration

Resources for this function will be requested through Direction and Control (**ESF-1**).

B. Logistics

- 1. Normal hiring procedures for hiring outside contractors can be circumvented, but only

when authorized in writing by the chief elected official present (**ESF-2 and 5**)

2. Other emergency supplies should be procured through normal procurement channels when possible. If normal channels are inappropriate and procurement is made direct, adequate records should be kept.

VIII. ESF DEVELOPMENT AND MAINTENANCE

It is the responsibility of the Office of Emergency Management, Public Works Coordinators, Greene County Highway Department Coordinators, and Resource Management Administrator to support the maintenance of this ESF. They will participate in regularly conducted drills and exercises and incorporate the results into the ESF.

IX. REFERENCES

- A. Springfield Public Works: Master Plan City of Springfield Street Tree Risk Management (March 2005).
- B. Army Corps of Engineers Flood Fighting (Public Law 84-99).