CONSTRUCTION MANAGEMENT ANNEX

EMERGENCY SUPPORT FUNCTION #3

I. INTRODUCTION

A. Purpose

The purpose of this ESF is to provide engineering and construction support to Federal, State, and local response efforts following a catastrophic earthquake.

B. Scope

This ESF involves engineering and construction activities and emergency contracting services during the immediate response phase of a catastrophic earthquake. The ESF includes:

(1) Emergency removal of debris from affected streets, roads, bridges, airfields, ports, wharfs, and waterways to expedite lifesaving, life protecting, health, and safety operations during the immediate response phase and to facilitate initial reconnaissance of the damaged area;

(2) Construction of emergency access roads; emergency restoration of essential public services and facilities including temporary repair of disaster damaged streets, roads, and airfields; and temporary repair or replacement of bridges; and

(3) Emergency demolition of damaged structures and facilities designated by State or local government as immediate hazards to the public health and safety, or as necessary to facilitate the accomplishment of lifesaving operations; undertaking temporary protective measures to abate immediate hazards to the public for health and safety reasons until demolition is accomplished; providing technical advice to assist local authorities in the identification of structures and facilities to be demolished; and identifying possible sources of secondary hazards in the disaster area.

II. POLICIES

A. Agencies will commence reconnaissance operations of the affected area immediately upon notification by FEMA of occurrence of a potentially catastrophic earthquake.

B. Emergency disaster operations will be accomplished using the most appropriate of the various procurement methods authorized. Normal

procurement procedures may have to be modified in order to accomplish urgent work promptly.

C. Prioritization of resources will be made at the regional level.

III. SITUATION

A. Disaster Condition

A catastrophic earthquake will cause unprecedented property damage. Structures will be destroyed or severely weakened. Homes, public buildings, bridges, and other facilities will have to be reinforced or demolished to ensure safety. Debris will make streets and highways impassable. Additionally, water, gas, and waste water lines will fail. There will be major electric power outages with power reduction in many areas. A major earthquake will affect the lives of many State and local response personnel, preventing them from performing their prescribed emergency duties. Similarly, equipment in the immediate disaster area will be damaged or inaccessible. Sufficient resources will not be available to State and local agencies to meet emergency requirements. Federal assistance will be required to identify and deploy resources from outside the affected area to ensure a timely, efficient, and effective response.

B. Planning Assumptions

1. Assistance from the Federal Government will be needed to clear debris, make emergency repairs to essential public utilities, and reduce hazards through induced reinforcing or demolition.

2. Federal, State, and local response to the disaster area will be dependent upon the reestablishment of ground routes. In many locations debris removal and emergency road repairs will be given top priority to support immediate lifesaving emergency response activities.

3. Federal, State, and local officials will be dependent upon a rapid assessment of the area to determine size and focus of the ESF organization and to establish priorities.

4. Emergency environmental and legal clearances will be needed for disposal of debris and demolition activities.

5. Sufficient local engineering and construction resources in the immediate disaster area will not be available. Construction resources will be required from outside the disaster area.

6. Aftershocks will necessitate the reevaluation of previously assessed structures.

IV. CONCEPT OF OPERATIONS

A. General

This ESF will provide engineering and construction support to supplement State and local emergency actions immediately following a catastrophic earthquake. The ESF will maintain close coordination with Federal, State, and local officials to establish priorities for engineering and construction support. The ESF will actively seek and obtain damage information from all available sources. The ESF, in coordination with the Damage Information ESF, will obtain an overall assessment of damages during the first critical hours following the earthquake. Support agency representatives to the ESF will coordinate with representatives of their agencies to obtain information on types of damages and critical response operations.

The ESF will identify and quantify requests for engineering and construction support and establish priorities for assistance. The ESF will evaluate State and local response capabilities to assist in organizing Federal response operations. One of the initial tasks of the ESF will be to identify resource requirements. Support agency representatives to the ESF will coordinate additional resource requirements with representatives of their agencies. The ESF will then secure the necessary resources to meet the priorities from the most expedient sources (including support agencies, contract services, or others) and implement the support.

The ESF will establish and maintain close coordination with the DFO and other ESF throughout the response period. The ESF will document all activities to support after-action requirements and justify actions taken.

B. Organization

1. National-Level Response Support Structure

a. The Construction Management ESF will operate under the direction of the Chief, Natural Disaster Section, Emergency Management Branch, US Army Corps of Engineers (USACE). The Chief, Natural Disaster Section will represent the ESF in its dealings with the Catastrophic Disaster Response Group (CDRG) and will maintain liaison with the regional ESF chairman.

b. The national-level organization is comprised of the following agencies:

(1) Department of Agriculture (USDA),

(2) Department of Defense (DOD),

(3) Department of Energy (DOE),

(4) Department of Interior (DOI),

(5) Department of Labor (DOL),

(6) Department of Transportation (DOT),

(7) Environmental Protection Agency (EPA),

(8) FEMA, and

(9) General Services Administration.

c. The national-level ESF operating location is the Emergency Operations Center (EOC) located at the Corps of Engineers Headquarters (HQUSACE). National ESF members will have representatives immediately available by telephone on a 24-hour basis during the emergency response period. The national ESF chairman will determine, following an initial situation assessment, which support agencies will be required to provide representatives to the national ESF on a 24-hour basis during the emergency response period.

d. The Natural Disaster Section, USACE, will provide administrative support to the national ESF.

2. Regional-Level Response Structure

a. The Corps of Engineers Division Commander will designate the chairman of the regional ESF. The regional ESF chairman will represent the ESF in its dealings with the FCO, and will maintain close coordination with the head of the national ESF.

b. The regional level ESF is comprised of regional representatives of those agencies listed under "National Level," paragraph B.1.b.

c. The regional ESF will operate at the DFO on a 24-hour basis for the duration of the emergency response period. Regional ESF members will have representatives immediately available to report to the DFO. The regional ESF chairman will determine the necessary staffing at the DFO following an initial situation assessment.

C. Notification

1. Upon occurrence of a potentially catastrophic earthquake, FEMA National will notify the Chief, Natural Disaster Section, HQUSACE. The Chief, Natural Disaster Section will notify all other national ESF members by telephone.

2. The chairman of the national ESF will notify the head of the regional ESF. In the event the head of the regional ESF cannot be contacted, the FEMA Regional Director (RD) will be contacted. The RD will then be responsible for notifying the head of the regional ESF.

3. Upon notification, all members will notify their parent agencies and be prepared to report to their ESF location as required.

D. Response Actions

1. Initial Actions

a. Upon notification by FEMA of the occurrence of a potentially catastrophic earthquake, the head of the national ESF will direct member agencies to initiate reconnaissance operations to identify and report:

(1) Boundaries of the disaster area and general locations of greatest damage,

(2) Areas where potential Federal assistance may be required,

(3) Types of ESF missions,

(4) Resource requirements and preliminary assessment on availability of resources,

(5) Access to major damage areas, and

(6) Location of possible sources of secondary hazards, such as dam failures.

b. The national-level ESF will become operational within 2 hours following implementation of the Plan. The head of the national ESF will notify members required to report initially to the EOC, HQUSACE.

c. The national-level ESF will initially focus on the following activities:

(1) Confirm alerting of members of national and regional ESF staffs;

(2) Establish communications with regional-level construction management ESF and DFO and obtain initial estimate of damages;

(3) Coordinate with other national-level ESF, especially Damage Information;

(4) Identify extent of damages and begin assessment of emergency construction requirements;

(5) Identify broad categories of work by location and begin prioritizing potential ESF missions; and

(6) Identify resource requirements and assess availability of regional assets.

2. Continuing Actions

a. Receive damage information from reconnaissance teams, other ESF, and Federal, State, and local agencies.

b. In coordination with Federal, State, and local agencies, identify the requirements for engineering and construction support and establish mission priorities.

c. Validate missions and identify resource requirements to execute.

d. Work with State and local governments to maximize use of available regional assets and identify resources required from outside the region. Initiate actions to locate and move resources into the disaster area. Requirements for moving personnel and equipment into the disaster area will be coordinated with the Transportation ESF.

e. Maintain close coordination with the CDRG and DFO to share information and ensure effective response to requests for assistance. The regional ESF will provide situation reports to the national ESF. Reports will be submitted using the format as shown in Figure 3-1. Situation reports will be updated as information becomes available.

f. Maintain accurate and complete records of all activities.

V. RESPONSIBILITIES

A. Primary Agency: US Army Corps of Engineers

1. Manage and coordinate the overall Federal efforts for emergency engineering and construction services to assist affected Federal, State, and local efforts.

2. Activate the ESF organization and notify supporting members. Arrange for staffing of the ESF operating locations.

3. Arrange for engineering and construction support for debris clearance, demolition, and the temporary repair of essential public services and facilities.

4. Arrange for additional engineering and construction resources as needed to supplement State and local efforts.

SITUATION REPORT ESF #3

Report Number _____ Date/Time/Group _____

1. General Situation Summary. Summarize location of key damage areas including extent and types of damage; communities damaged or threatened; essential transportation systems out; damaged public services or facilities; and any other significant situation or problems.

2. State and Local Efforts. Nature, location, and degree to which State and local governments are applying their capabilities; evaluation of ability to cope with situation; evaluation of engineering and construction resources committed.

3. ESF Efforts. Summarize requests for ESF assistance; actions initiated including liaison, reconnaissance and data collection, and engineering and construction activities; and personnel and resources committed. Tabulate the following.

   a. Number of personnel involved by agency.
   b. Number and value of emergency contracts.
   c. Estimated total PL 93-288 obligation to date.
   d. Resource requirements.

4. Significant Issues/Problems. Summarize key issues or concerns including communications, personnel, coordination, equipment, access, etc.

Figure 3-1. Situation Report Format.

5. Provide administrative facilities, mapping, communication, equipment, and personnel support at the ESF operating locations.

6. Provide damage information to the Damage Information ESF.

B. Support Agencies

Each support agency will provide representatives to support both the national and regional ESF. ESF representatives will be available on a 24-hour basis for the duration of the response period. If required by the head of the ESF, representatives will report to the ESF operating locations. All representatives will maintain close coordination with their parent agencies and their agencies' representatives on other ESF.

1. Department of Agriculture

a. Provide engineering and contracting/procurement personnel and equipment to assist in emergency debris removal, demolition, repair of roads and bridges, and temporary repair of essential public facilities.

b. Provide technical personnel to evaluate damage to water control facilities.

2. Department of Defense

Provide available military resources (technical assistance, personnel, supplies, and equipment) to support ESF activities including debris removal, emergency demolition, emergency power, and restoration of essential public facilities.

3. Department of Energy

Provide technical assistance, equipment, and materials as required and available to reestablish electrical transmission capability and distribution facilities within the affected area.

4. Department of the Interior

a. Provide engineering support to assist in evaluating damages to water control facilities.

b. Provide technical assistance, contracting/procurement personnel, equipment, mapping, and materials to support ESF missions.

c. Provide technical assistance and advice concerning potential continuing geological hazards which could impact ESF operations.

d. provide personnel and equipment to assist in damage assessment, debris clearance, demolition, and emergency restoration of facilities on Indian reservations and national park areas.

5. Department of Labor

Provide technical personnel to assess threat to public health and safety. Provide supplemental assistance in debris removal or demolition activities performed by the ESF.

6. Department of Transportation

a. Provide personnel to assess damages to all types of transportation systems and assist in evaluating alternatives for repair or temporary replacement.

b. Assist in identifying and arranging for utilization of all types of transportation.

c. Arrange for movement of required engineering and construction resources into the disaster area.

7. Environmental Protection Agency

a. Provide personnel to assist in damage assessment of water and waste systems and determine necessary emergency repairs.

b. Assist in locating disposal sites for debris clearance activities.

c. Provide guidance on areas affected by hazardous materials.

8. Federal Emergency Management Agency

a. Provide overall assessment of damages to public facilities, utilities, structures, roads, airfields, and potential secondary hazards.

b. Assist in establishing priorities for emergency engineering and construction services.

9. General Services Administration

a. Provide engineering and contracting/procurement personnel for emergency debris clearance, demolition, and repair missions.

b. Provide logistical support to the ESF.

c. Assist in locating construction resources not available in the disaster area.

VI. RESOURCE REQUIREMENTS

Resource requirements during the emergency response period will be personnel, communications systems, equipment and supplies, and office facilities.

A. Personnel

1. One or more representatives from each member agency to staff the regional-level and national-level ESF.

2. Qualified personnel to assess damages to public facilities and services, transportation systems, water control facilities, etc; and determine where potential Federal assistance may be required.

3. Qualified engineers to determine structures and facilities to be demolished.

4. Contracting/procurement personnel to contract for engineering and construction services.

5. Construction personnel to administer/manage construction operations, including disposal operations.

6. Qualified personnel to establish, maintain, and operate communications systems.

7. Financial management specialists to manage and control expenditures.

8. Administrative support personnel at the ESF and field offices (if established).

B. Communications Systems

1. Dedicated voice communications systems at regional and national ESF. These systems include commercial telephone service, Federal Telephone System (FTS), automatic voice network (AUTOVON), and high frequency radio system (HFSSB).

2. High speed digital facsimile (telecopy).

3. Automated Digital Network (AUTODIN) connecting regional ESF to HQUSACE.

4. Intraregional voice communications systems connecting Regional, State, and local officials involved in emergency response operations.

5. Communications required to support ESF field operations.

C. Equipment and Supplies

1. Heavy construction equipment (with operators); e.g., front end loaders, dozers, trucks, cranes, etc.

2. Other equipment and supplies with operators; e.g., electrical generators, water purification equipment, jack hammers, hand tool (shovels, picks), water piping, pumps, tank trucks, etc.

3. Floating plant; e.g., dredges, barges, boats, etc.

4. Vehicles (cars, 4X4 trucks).

5. Construction materials; e.g., wood, steel, concrete, paving materials, etc.

6. Complete maps and aerial photographs of the damaged areas. The maps and photographs should be in various scales to support response missions.

D. Office Facilities

1. Office space and dedicated communications at the regional-level and national-level ESF operating locations for a 10-person staff on a 24-hour basis.

2. Field offices as required to support emergency response operations.

FIREFIGHTING ANNEX

EMERGENCY SUPPORT FUNCTION #4

I. INTRODUCTION

A. Purpose

The purpose of this ESF is to detect and suppress wildland, rural, and urban fires resulting from, or occurring coincidentally with, a catastrophic earthquake.

B. Scope

This ESF involves managing and coordinating firefighting activities, including the detection and suppression of fires on Federal lands, and providing personnel, equipment, and supplies in support of State and local agencies involved in rural and urban firefighting operations.

II. POLICIES

A. Processes and procedures established in the National Fire Mobilization Guide shall be followed in responding to earthquake-associated fire emergencies.

B. National support shall be accomplished through the National Interagency Fire Coordination Center (NIFCC) located at Boise, Idaho.

C. Coordination with, and support of, State and local fire suppression organizations shall be accomplished through State Foresters and as provided for under the Incident Command System.

D. Priority shall be given to saving lives and protecting property, in that order.

III. SITUATION

A. Disaster Condition

Under the best of circumstances, the management of a large firefighting operation is complex, often involving thousands of people and several different agencies and jurisdictions. Fires resulting from, or independent of but coincident with, a catastrophic earthquake will place extraordinary demands on available resources and logistics support systems.

A major earthquake will result in many urban, rural, and wildland fires. Ignition sources of little concern under normal conditions could cause hundreds of fires during and after an earthquake. The damage

potential from fires in urban areas during and after a major earthquake exceeds that of all other causes. Numerous fires are anticipated in rural and wildland settings as well. Under the worst conditions, these fires will have the potential to spread rapidly, cause extensive damage, and pose a serious threat to life and property. Urban fire departments not incapacitated by the earthquake will be totally committed to fires in urban areas. Normally available firefighting resources will be difficult to obtain and utilize because of massive disruption of communication, transportation, utility, and water systems.

B. Planning Assumptions

1. Many urban, rural, and wildland fires will result from or occur coincidentally with the earthquake. Large, damaging fires will be common.

2. At the time of the earthquake, there will be major wildfires burning elsewhere in the United States. These fires will draw upon the same resources (people, equipment, and supplies) that would be needed to support firefighting and other earthquake-related emergency operations. It must be assumed that some firefighting resources will become scarce, resulting in earthquake-related firefighting operations competing with wildfire suppression operations elsewhere for resources.

3. Landline communications will be interrupted. Radio communication will be relied upon heavily, necessitating the early ordering of radio systems from NIFCC.

4. Wheeled-vehicle access will be hampered by bridge failures, landslides, etc., making conventional travel to the fire location extremely difficult or impossible. Aerial attack by airtankers, helicopters, and smokejumpers may be essential in these situations. Helicopters will be scarce resources and usable airports congested.

5. Agencies which commonly support large fire suppression operations, including the Military and GSA, will receive urgent requests from non-fire-related agencies for personnel, equipment, and supplies. Many of the resources commonly available for use in fighting large wildfires will be scarce or unavailable.

6. Wildland firefighting forces will be diverted to control fires in rural and urban areas because of more urgent threats to life and property.

7. Wildfire firefighting techniques will have to be applied to rural and urban fire situations, particularly where water systems are inoperative. Aerial delivery of fire retardants or water for structural protection will be essential. In the case of mass fires, the clearing of fire breaks and use of burning out and backfiring techniques will be used.

8. Efficient and effective mutual aid among the various Federal, State, and local fire agencies requires the use of a common incident command system together with compatible firefighting equipment and communications.

IV. CONCEPT OF OPERATIONS

A. General

The Firefighting ESF will manage and coordinate Federal wildfire suppression activities and will support State and local wildland, rural, and urban firefighting agencies as necessary. This will be accomplished utilizing established firefighting and support organizations, processes, and procedures. Responsibility for situation assessment and determination of resource needs lies primarily with local incident managers and the Regional Fire Suppression Support Coordinator. Requests for firefighting assistance and resources will be transmitted from the DFO to the appropriate regional-level fire coordination center and then on to the NIFCC at Boise, Idaho, for national response and logistics support when regional resources are inadequate. NIFCC will contact the National Fire Suppression Liaison Officer in the event of national-level shortages or unavailability of needed resources. Resolution of such shortages will be pursued at the ESF and, when necessary, the Catastrophic Disaster Response Group (CDRG) level. Actual firefighting operations will be managed under the Incident Command System. Situation and damage assessment information will be transmitted through established fire suppression intelligence channels and directly between national- and regional-level ESF.

B. Organization

The Firefighting ESF has a parallel structure at the national and regional levels.

1. National-Level Response Support Structure

a. The national ESF will operate under the direction of the Operations Assistant Director, Fire and Aviation Management, Forest Service. Assistance will be provided as necessary by the Chief, Fire and Aviation Management, Bureau of Land Management.

b. The national ESF will be operational on a 24-hour basis for the duration necessary, providing broad policy and coordination support to the CDRG. The National Fire Suppression Liaison Officer will be located either at FEMA or at the Forest Service Fire and Aviation Management office in Rosslyn, Virginia, as the situation demands. Support agencies will be available by telephone on a 24-hour basis for the duration necessary.

c. National logistics support and interregional mobilization of resources shall be provided by NIFCC.

2. Regional-Level Response Structure

Federal firefighting response support is coordinated by the Fire Suppression Support Coordinator provided by the Forest Service Regional Office. The Regional Fire Suppression Support Coordinator has responsibility for establishing and maintaining coordination with the National Fire Suppression Liaison Officer, the Forest Service Region, and regional support agencies. Regional firefighting response and logistics support will be provided by regional coordination centers and NIFCC in accordance with established Fire Mobilization Guides. Support agencies will have representatives available by telephone on a 24-hour basis for the duration necessary.

C. Notification

1. Upon notification by FEMA of a potentially catastrophic earthquake, the Assistant Director, Fire and Aviation Management, Forest Service, will notify all other ESF members by telephone.

2. The Regional Fire Suppression Support Coordinator and NIFCC will also be notified by telephone.

D. Response Actions

1. Initial Actions

a. The National Fire Suppression Liaison Officer will locate at FEMA Headquarters initially within 2 hours of notification.

b. The Forest Service Director at NIFCC shall immediately implement Planning Level IV upon notification of Plan implementation.

c. The National Fire Suppression Liaison Officer shall ensure that communication links with FEMA, national primary and support agencies, NIFCC, and the Regional Fire Suppression Support Coordinator are established.

d. An initial fire situation and damage assessment will be obtained.

2. Continuing Actions

a. Obtain, maintain, and provide fire situation and damage assessment information.

b. Determine and resolve issues regarding resource shortages and bottlenecks, interagency conflicts, and policy matters, involving CDRG as necessary.

c. Maintain close coordination with CDRG, support agencies, NIFCC, and the Disaster Field Office (DFO).

d. Maintain a complete log of actions taken, resource orders, records, and reports.

V. RESPONSIBILITIES

A. Primary Agency: Department of Agriculture-- Forest Service

1. Provide qualified representatives to serve as Fire Suppression Liaison Officers at the national level and Fire Suppression Support Coordinators at the DFO.

2. Task support agencies as necessary to accomplish ESF support responsibilities.

3. Provide logistics support through NIFCC for mobilizing national resources for firefighting.

4. Assume full responsibility for suppression of wildfires burning on or threatening National Forest System lands.

5. Provide and coordinate firefighting assistance to other Federal land management organizations and to State Forestry and local fire organizations as requested under the terms of existing agreements and the Plan.

6. Arrange for direct liaison with fire chiefs in the designated area to coordinate requests for firefighting assistance in structural/industrial fire protection operations.

7. Provide information to the Damage Information ESF as assessments of fire-caused damages are obtained.

B. Support Agencies

1. Department of Commerce

Provide fire-weather forecasting as needed from the NIFCC in Boise, Idaho, or from a nearby National Weather Service Forecast Office under the terms of existing interagency agreements.

2. Department of Defense

a. Assume full responsibility for firefighting activities on US military installations.

b. Support firefighting operations on nonmilitary lands with personnel, equipment, and supplies under the terms of existing interagency agreements.

c. Provide personnel, equipment, and material to be used for emergency firefighting tasks within the disaster area or to be used in direct support of emergency firefighting activities within the disaster area.

d. Arrange liaison for movement of military firefighting resources outside their normal mutual aid zones when required.

e. Provide ship-borne water delivery capability for dockside firefighting when required and available.

f. Provide limited radio communications for use between cooperating fire services where there is no common radio frequency.

3. Department of the Interior

a. Assume full responsibility for fighting wildfires burning on lands under its jurisdiction.

b. Assist the US Department of Agriculture (USDA) in managing and coordinating firefighting operations.

c. Provide firefighting assistance to other Federal land management organizations as requested, under the terms of existing agreements and the Plan.

4. Department of Transportation

Provide assistance to firefighting units in connection with ground, air, and water-related firefighting activities.

5. Environmental Protection Agency

Provide technical assistance in the event of fires involving hazardous materials.

6. Federal Emergency Management Agency

Provide advice and assistance relating to structural firefighting.

7. General Services Administration

Support firefighting operations by providing equipment and supplies under the terms of existing interagency agreements and the Plan.

8. US Army Corps of Engineers

Provide contracting services to urban and rural firefighting forces to obtain heavy equipment and/or demolition services as needed to suppress disaster-related fires.

C. Other Organizations

State Forestry organizations in most States are responsible for wildland firefighting on non-Federal lands. States may assist other States in firefighting operations under the auspices of a Federal agency and may assist Federal agencies through agreement.

VI. RESOURCE REQUIREMENTS

A. Emergency Support Function

The Forest Service and Bureau of Land Management national offices will provide National Fire Suppression Liaison Officers to assure 24-hour operation of the ESF when necessary. Telephone and electronic communications facilities are in place and available, as are support staff.

B. Incident Support

Local, regional, and national fire suppression resources will be necessary. These resources are identified in appropriate Fire Mobilization Guides. Local, regional, and national logistics support organizations are established and in place.

VII. REFERENCES

National Mobilization Guide (NIFCC).

VIII. TERMS AND DEFINITIONS

A. National Fire Suppression Liaison Officer

The person primarily responsible for operation of the National Firefighting Emergency Support Function.

B. National Interagency Fire Coordination Center

The organization responsible for coordination of national emergency response for wildfire suppression, located at the Boise Interagency Fire Center, Boise, Idaho.

C. Planning Level IV

The worst of four fire hazard scenarios described in the NIFCC National Mobilization Guide. It is NIFCC's highest level of readiness and action.

D. Regional Fire Suppression Support Coordinator

The person primarily responsible for operation of the Regional Firefighting Emergency Support Function.

E. Incident Command System

An on-site incident management system applicable to all types of emergencies; includes standardized organizational structure, procedures, and terminology enabling participating agencies to function together effectively and efficiently.