

## **Emergency Support Function #3 – Public Works And Engineering Annex**

---

### **ESF Coordinator:**

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

### **Primary Agency:**

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

### **Support Agencies:**

Department of Agriculture  
Department of Commerce  
Department of Defense  
Department of Energy  
Department of Health and Human  
Services  
Department of Homeland Security  
Department of the Interior  
Department of Labor  
Department of State  
Department of Transportation  
Department of Veterans Affairs  
Environmental Protection Agency  
Nuclear Regulatory Commission  
Tennessee Valley Authority  
Corporation for National and Community  
Service

## **INTRODUCTION**

---

### **Purpose**

Emergency Support Function (ESF) #3—Public Works and Engineering coordinates and organizes the resources of the Federal Government to facilitate the delivery of multiple core capabilities.

### **Scope**

---

Activities within the scope of this function include conducting pre-incident and post-incident assessments of public works and infrastructure; executing emergency contract support for life-saving and life-sustaining services; providing technical assistance to include engineering expertise, construction management; contracting and real estate services; and providing emergency repair of damaged public infrastructure and critical facilities.

ESF#3 is linked closely with the Infrastructure Systems Recovery Support Functions (RSF) under the National Disaster Recovery Framework. ESF#3 works closely with the Infrastructure Systems RSF to coordinate the transition from emergency repairs to long-term restoration activities.

## **RELATIONSHIP TO WHOLE COMMUNITY**

---

### **Local, State, Tribal, Territorial, and Insular Area Governments**

A whole community approach is used in the delivery of core capabilities through coordinated planning and response with local, state, tribal, territorial, and insular area partners.

## **Emergency Support Function #3 – Public Works And Engineering Annex**

---

Local, state, tribal, territorial, and insular area governments are responsible for their own public works and infrastructures and have the primary responsibility for mitigation, preparedness, response, and recovery.

Local, state, tribal, territorial, and insular area governments are fully and consistently integrated into ESF #3 activities.

When activated to respond to an incident, the primary agency for ESF #3 develops work priorities in cooperation with local, state, tribal, territorial, and insular area governments and in coordination with the Federal Emergency Management Agency (FEMA).

Local authorities are responsible for obtaining required waivers and clearances related to ESF #3 support.

Local, state, tribal, territorial, and insular area mutual aid and assistance networks facilitate the sharing of resources to support response activities.

### **Private Sector/Nongovernmental Organizations**

---

The private sector owns and/or operates a large proportion of the Nation's infrastructure and is a partner and/or lead for the rapid restoration of infrastructure-related services.

Through ongoing planning and coordination, the private sector provides critical details for incident action planning and decision making processes during an incident.

Private-sector mutual aid and assistance networks facilitate the sharing of resources to support response.

The Critical Infrastructure Support Annex provides details regarding the processes that help to ensure coordination and integration of private sector critical infrastructure-related activities among a wide array of public and private incident managers.

Pre-awarded contracts and other emergency contracting vehicles are used to leverage private sector capabilities to support ESF#3 response activities.

A whole community approach is used in the delivery of core capabilities through established relationships and agreements with volunteer organizations and other nongovernment organizations.

### **Federal Government**

---

Specific information on Federal Government actions are described in the following section.

## **CORE CAPABILITES AND ACTIONS**

---

### **ESF Roles Aligned to Core Capabilities**

The following table lists the Response core capabilities that ESF #3 most directly supports along with the related ESF #3 actions. Though not listed in the table, all ESFs, including ESF #3, support the core capabilities of Planning, Operational Coordination, and Public Information and Warning.

## Emergency Support Function #3 – Public Works And Engineering Annex

Core Capability	ESF #3 – Public Works and Engineering
<p><b>Infrastructure Systems</b></p>	<ul style="list-style-type: none"> <li>• Prepares for potential public works and engineering requirements. Activities include providing public information, contributing to situational awareness, establishing response teams, leveraging technological tools, training and exercising with partners, establishing private sector contracts and agreements, and coordinating with volunteer organizations and other nongovernmental partners.</li> <li>• Conducts pre-incident and post-incident assessments of public works and infrastructure.</li> <li>• Executes emergency contract support for life-saving and life-sustaining services.</li> <li>• Provides emergency repair of damaged public infrastructure and critical facilities.</li> <li>• Supports restoration of critical navigation, flood control, and other water infrastructure systems, including drinking water and wastewater utilities.</li> <li>• Provides assessment and emergency response support for water, wastewater treatment facilities, levees, dams, buildings, bridges and other infrastructure.</li> <li>• Provides temporary emergency power to critical facilities (e.g., hospitals, water treatment plants, shelters, fire/police stations).</li> <li>• Constructs temporary critical public facilities to temporarily replace destroyed or damaged following a disaster (e.g., schools, local government offices, fire stations, police stations, and medical facilities) in coordination with ESF #6.</li> <li>• Provides assistance in the monitoring and stabilization of damaged structures and the demolition of structures designated as immediate hazards to public health and safety.</li> <li>• Provides structural specialist expertise to support inspection of mass care facilities and urban search and rescue operations in coordination with ESF #9.</li> <li>• Manages, monitors, and/or provides technical advice in the clearance, removal, and disposal of debris from public property and the reestablishment of ground and water routes into impacted areas. For the purposes of ESF #3, the term “debris” includes general construction debris that may contain inherent building material contaminants, such as asbestos or paint. Debris may also include livestock or poultry carcasses and/or plant materials.</li> <li>• Provides technical assistance to include engineering expertise, construction management, contracting, real estate services, and inspection of private/commercial structures.</li> <li>• Provides engineering and construction expertise, responders, supplies, and equipment to address flooding to include providing advance measures in anticipation of imminent severe flooding.</li> </ul>
<p><b>Critical Transportation</b></p>	<ul style="list-style-type: none"> <li>• Provides coordination, response, and technical assistance to effect the rapid stabilization and reestablishment of critical waterways, channels, and ports to include vessel removal, significant marine debris removal, emergency dredging, and hydrographic surveys.</li> <li>• Clears debris from roads to facilitate response operations.</li> </ul>

## Emergency Support Function #3 – Public Works And Engineering Annex

Core Capability	ESF #3 – Public Works and Engineering
<b>Critical Transportation (continued)</b>	<ul style="list-style-type: none"> <li>For incidents involving a blast or explosion associated with a chemical, biological, radiological, or nuclear (CBRN) threat agent resulting in a contaminated debris field, leads Federal actions to clear critical transportation routes of CBRN-contaminated debris, during the emergency phase, in consultation with ESF #10. ESF #10 assumes leadership for management of CBRN-contaminated debris after the emergency phase is over.</li> </ul>
<b>Environmental Response/Health and Safety</b>	<ul style="list-style-type: none"> <li>Collects, segregates, and transports to an appropriate staging or disposal site(s) hazardous materials that are incidental to building demolition debris, such as household hazardous waste and oil and gas from small motorized equipment; removes and disposes of Freon from appliances; and removes, recycles, and disposes of electronic goods.</li> <li>For incidents involving a blast or explosion associated with a CBRN threat agent resulting in a contaminated debris field, ESF #3, in consultation with ESF #10 and FEMA:               <ul style="list-style-type: none"> <li>Provides structural specialist expertise to support inspection of damaged CBRN-contaminated infrastructure and may employ temporary stabilization measures or take other actions as necessary to address structural instability concerns.</li> <li>Performs demolitions after a determination is made that a building is unstable and creates an imminent hazard to workers and/or after ESF #10, in conjunction with other appropriate Local, state, tribal, territorial, insular area, and Federal authorities, makes a determination that demolition is the desired cleanup approach.</li> </ul> </li> </ul>
<b>Public and Private Services and Resources</b>	Executes emergency contracting support for infrastructure related to life-saving and life-sustaining services to include providing potable water, emergency power, and other emergency commodities and services.
<b>Fatality Management</b>	<ul style="list-style-type: none"> <li>Manages debris to facilitate fatality recovery efforts to include establishing a system for sorting debris and recovering human remains.</li> <li>Provides construction and engineering support for temporary morgues.</li> </ul>
<b>Mass Care Services</b>	<ul style="list-style-type: none"> <li>Provides construction, engineering, and project management expertise and support for temporary housing and sheltering, ensuring accessibility for those with disabilities and others with access and functional needs to include management of temporary roofing support following hurricane disasters.</li> <li>Inspects mass care shelter sites to ensure suitability and accessibility of facilities to safely shelter survivors.</li> <li>Constructs temporary shelter facilities, including accessible shelters, in the affected area, as required.</li> </ul>
<b>Search and Rescue</b>	<ul style="list-style-type: none"> <li>Provides specially trained and equipped structural engineers to augment FEMA Urban Search and Rescue Task Forces, incident support teams, military technical rescue organizations, and general purpose troops during structural collapse incidents and other disaster response missions.</li> <li>As required, provides debris removal equipment and expertise to support search and rescue operations.</li> </ul>

## Emergency Support Function #3 – Public Works And Engineering Annex

### Agency Actions

Primary Agency	Actions
<b>Department of Defense (DOD)/United States Army Corps of Engineers (USACE)</b>	<ul style="list-style-type: none"> <li>Provides technical assistance, project management, engineering expertise, and construction management resources and support during response activities to address roles aligned to the above core capabilities.</li> <li>Maintains the teams, tools, and other resources to support ESF#3 core capabilities roles.</li> <li>DOD/USACE may respond under separate established authorities and under mission assignment to FEMA. As primary and support agency, DOD/USACE provides assistance directly to FEMA; requests for assistance are not coordinated and processed through the Defense Coordinating Officer (and assistance is not under the operational control of a Joint Task Force Commander).</li> </ul>
Support Agency	Actions
	<p><b>Natural Resources Conservation Service:</b> Provides technical personnel to evaluate damage to water control facilities.</p> <p><b>United States Forest Service:</b> Provides engineering and contracting/procurement personnel and equipment to assist in emergency removal of debris, demolition, temporary protection of roads and bridges, temporary protection of essential public facilities, water supply, and sanitation. ESF #4 or the USDA/Forest Service Disaster and Emergency Operations Branch is the contact for this support.</p>
<b>Department of Commerce</b>	<p><b>National Oceanic and Atmospheric Administration</b></p> <ul style="list-style-type: none"> <li>Provides hydrographic survey assets and expertise as part of a coordinated strategy of response/restoration of critical waterways, channels, and ports.</li> <li>Provides scientific support in assessing impact to the coastal zone using population data, storm track, known areas of coastal damage, and general information on currents and winds to predict areas of high debris density and abundance.</li> </ul>
<b>Department of Defense</b>	<p><b>Navy Supervisor of Salvage</b></p> <ul style="list-style-type: none"> <li>Provides expertise and conducts/supports specialized salvage/wreck removal operations as part of a coordinated response and restoration strategy.</li> <li>Exercises and manages regional standing emergency salvage contracts to quickly draw upon the required resources of the commercial salvage industry.</li> <li>Accesses and coordinates the U.S. Navy's hydrographic survey assets and capabilities.</li> <li>Coordinates salvage and wreck removal operations.</li> </ul>
<b>Department of Energy</b>	<ul style="list-style-type: none"> <li>Gathers, assesses, and shares information on energy system damage and estimations on the impact of energy system outages within affected areas.</li> <li>Provides information concerning the energy restoration process, such as projected restoration schedules, percent completion of restoration, geographic information on the restoration, and other information as appropriate.</li> </ul>

## Emergency Support Function #3 – Public Works And Engineering Annex

Support Agency	Actions
<b>Department of Health and Human Services</b>	<ul style="list-style-type: none"> <li>• Supplies engineering and environmental health personnel to assist, in conjunction with the Environmental Protection Agency (EPA), in assessing the status of water, wastewater, and solid waste facilities.</li> <li>• Provides guidance related to health problems associated with hazardous materials and consumption of water from local sources.</li> <li>• Provides situational awareness regarding water and wastewater needs at healthcare critical infrastructure sector facilities.</li> </ul>
<b>Department of Homeland Security</b>	<p><b>Office of Infrastructure Protection</b></p> <ul style="list-style-type: none"> <li>• Supports ESF #3 infrastructure protection and mitigation missions by providing infrastructure risk and vulnerability assessments in response to actionable intelligence and other information.</li> <li>• Through the Infrastructure Liaison, provides situational awareness and prioritized recommendations concerning the stabilization and reestablishment of the associated critical infrastructure sectors supported by this ESF.</li> </ul> <p><b>U.S. Coast Guard (USCG)</b></p> <ul style="list-style-type: none"> <li>• Marks and coordinates with DOD/USACE for removal of obstructions declared to be hazards to navigation.</li> <li>• Assists in vessel salvage and removal of vessel debris. This includes coordinating and/or providing resources, assessments, expertise, technical assistance, monitoring, and other appropriate support.</li> <li>• USCG has statutory authority/responsibility to oversee oil and hazardous substance pollution response operations associated with debris removal/salvage operations in the Coastal Zone in accordance with the National Contingency Plan (40 CFR Part 300).</li> </ul>
<b>Department of the Interior/Bureau of Reclamation</b>	<ul style="list-style-type: none"> <li>• Provides engineering support to assist in evaluating damage to water control systems, such as dams, levees, and water delivery facilities and structures.</li> <li>• Provides personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general.</li> <li>• Provides technical assistance in contract management, contracting, procurement, construction inspection, and environmental and archeological assessments.</li> </ul>
<b>Department of Labor/Occupational Safety and Health Administration</b>	<p>Provides worker safety advice, assistance, and policy support for debris removal, building demolition, and other ESF #3 activities.</p>
<b>Department of State</b>	<ul style="list-style-type: none"> <li>• Provides liaison to DOD/USACE in the event of incidents having potential international implications.</li> <li>• In accordance with the International Coordination Support Annex, coordinates international offers of public works and engineering assistance and support.</li> </ul>

## Emergency Support Function #3 – Public Works And Engineering Annex

Support Agency	Actions
<b>Department of Transportation</b>	<ul style="list-style-type: none"> <li>• Provides technical expertise and assistance for repair and restoration of transportation infrastructure (e.g., highways, bridges, tunnels, transit systems, port facilities, and railways) and provides advice and assistance on the transportation of contaminated materials.</li> <li>• Provides engineering personnel and support to assist in damage assessment, structural inspections, debris clearing, and restoration of the Nation's transportation infrastructure.</li> <li>• Administers special funding that can be used for repair or reconstruction of major highway facilities as well as grant programs for transit systems and railroads that could be used for repair and rehabilitation of damaged infrastructure.</li> </ul>
<b>Department of Veterans Affairs</b>	<p>Provides engineering personnel and support, including design estimation and construction supervision, for repair, reconstruction, and restoration of eligible facilities.</p>
<b>Environmental Protection Agency</b>	<ul style="list-style-type: none"> <li>• Conducts infrastructure protection activities for drinking water and water treatment agencies in the water sector, in accordance with its responsibilities as the designated Sector-Specific Agency for this sector as described in Homeland Security Presidential Directive 7.</li> <li>• Assists in determining the suitability for human consumption of water from local sources and in identifying hazardous materials having the potential to affect drinking water supplies.</li> <li>• Assists in identifying critical water and wastewater needs, including personnel, electrical power, and treatment chemicals.</li> <li>• Assists, in conjunction with state/tribal agencies and permitting authorities, in determining the operating status of water and wastewater systems.</li> <li>• Provides assistance to state solid waste agencies regarding municipal solid waste landfills and construction and demolition waste landfills. Provides technical assistance for nonhazardous waste management, including debris management and recycling/reuse opportunities.</li> <li>• Assists state solid waste agencies with assessments of staging/storage areas, solid waste facilities, and wastewater facilities; environmental sampling and monitoring; and inspections, resources, data, and other support as appropriate.</li> <li>• Identifies locations of—and provides safety guidance for—areas affected by hazardous materials.</li> <li>• For incidents involving a blast or explosion associated with a CBRN threat agent resulting in a contaminated debris field, provides technical assistance and consultation during the assessment and stabilization of damaged and potentially contaminated infrastructure and on demolition strategies.</li> <li>• Assists in investigation and intelligence analysis for hazardous materials incidents involving contaminated water and wastewater systems, pursuant to existing EPA statutory authorities.</li> <li>• Provides expertise on waste and debris disposal options.</li> </ul>
<b>General Services Administration</b>	<ul style="list-style-type: none"> <li>• Provides resource support to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities.</li> <li>• Provides technical assistance in construction inspection and environmental and archeological assessments.</li> </ul>

## Emergency Support Function #3 – Public Works And Engineering Annex

---

Support Agency	Actions
<b>Nuclear Regulatory Commission</b>	Assists radiological contaminated debris management activities by coordinating and/or providing resources, assessments, data, expertise, technical assistance, monitoring, and other appropriate support.
<b>Tennessee Valley Authority</b>	Provides personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general.
<b>Corporation for National and Community Service</b>	Provides teams of trained National Service Participants (including AmeriCorps members, Learn and Serve America volunteers, and Retired and Senior Volunteer Program volunteers) to carry out canvassing, needs assessment, information distribution, debris clearance, temporary roof repair, elimination of specified health/safety hazards, and other response activities, including support commodity distribution, in disadvantaged communities and for residents with disabilities and others with access and functional needs.