

**EMERGENCY SUPPORT FUNCTION 3:
PUBLIC WORKS AND ENGINEERING**

Responsibility Summary

Primary Agencies:	Columbia County Public Works City of Dayton Public Works Town of Starbuck Public Works
Support Agencies:	Columbia County Sheriff Columbia County Fire District’s 1, 2, & 3 Columbia County Emergency Management Columbia County Public Safety Communications Columbia County Public Health US Army Corp of Engineers US Department of Agriculture WA and US Department of Transportation Environmental Protection Agency American Red Cross Pacific Power Columbia Rural Electric Various Private-Sector Agencies National Resources Conservation Service National Oceanic and Atmospheric Administration

I. INTRODUCTION

Purpose

Emergency Support Function (ESF) 3- Public Works and Engineering describes the coordination and organization of capabilities and resources of the County to facilitate the delivery of services, technical assistance, engineering expertise, construction management, and other support to prepare for, respond to, and/or recover from a disaster or an incident requiring a coordinated local response.

Scope

ESF 3 is structured to provide public works and engineering-related support for the changing requirements of domestic incident management to include preparedness, response, and recovery actions. 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, and contracting services; providing emergency repair of damaged public infrastructure and critical facilities; and coordinating and requesting assistance as needed through appropriate state and federal public assistance programs.

Policies

State, Tribal and Local

- State, tribal and local governments are responsible for their own public works and infrastructures and have the primary responsibility for mitigation, preparedness, response, and recovery.
- State, tribal, and local governments are fully and consistently integrated into ESF 3 activities.
- When activated to respond to an incident, the primary agencies for ESF 3 develop work priorities in cooperation and in coordination with each other.
- Local authorities are responsible for obtaining waivers and clearances related to ESF 3 support.
- State, tribal and local mutual aid and assistance networks facilitate the sharing of resources to support response and recovery.

Private Sector

- The private sector owns or operates a large proportion of the County'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. Also, private-sector mutual aid and assistance networks facilitate the sharing of resources to support response and recovery.

Federal Government

- Federal public works and engineering support can be requested through proper channels, when there is a need for additional resources or capabilities to support and sustain the response and initial recovery. During large scale events, all levels of government and the private sector will take proactive actions to respond, anticipating resources that may be required.

All, Federal, State, Tribal, Local and Private Sector agencies are responsible for complying with appropriate environmental and historic preservation statutes.

II. SITUATION

Hazard and Threat Analysis

A large-scale disaster or wide spread emergency will severely damage County and other local jurisdiction facilities and will require teamwork and practiced coordination of services for an effective and safe response and prompt recovery.

Damage to water, drainage/wastewater systems may force large-scale water distribution, and severely limit firefighting capabilities. Parks may have to respond by providing staging and/or sheltering facilities. Seismic or otherwise inflicted damage to buildings may cause significant interruption to both private enterprise and city/county services.

Infrastructure damage to transportation facilities such as roads, bridges, and traffic signals may isolate sections of the County and limit emergency access to repair systems (managed jointly between ESF 1 and ESF 3).

Widespread loss of electric power will cause disruptions to water and drainage pumping and control (managed jointly between ESF 12 and ESF 3).

Communication equipment/systems may become overloaded or damaged and coordination efforts may be hindered (managed jointly between ESF 2 and ESF 3).

Disaster response and recovery efforts may exhaust departmental resources and require county, state, and/or federal assistance to obtain supplemental assets.

Planning Assumptions

Rapid assessment of the involved areas will be initiated to determine critical needs and priorities. Resources, including personnel, will be identified, prioritized, and managed based on critical needs.

Water, drainage, debris removal, and assurance of structure integrity will be high priority objectives following any major disaster.

Primary and support agencies for ESF 3 will operate autonomously, under their own authorities as applicable. In addition, they will address needs and tasks received via their representative to the ECC (ECC Liaison).

Upon mobilization by the ECC, the responding agency/department will promptly provide staffing appropriate to support the efficient provision of services.

Primary and support agencies should maintain accurate, current inventories of key assets (vehicles, radios, pumps, generators, etc.) and have a practiced method of tracking asset availability throughout a disaster. This may be through coordination with the ECC and tracking through Web EOC.

Each support agency should have in place an emergency response and recovery plan which supports the County's CEMP and emergency support functions, consistent with the National Incident Management Plan, and be sufficient to ensure the agency/department can provide its essential services and support its ESP/SOP.

In most cases, adequate numbers of personnel with engineering and construction skills and equipment will be available from County/City department staff. Regional contractors may be

used to supplement response and recovery activities, subject to applicable contracts and regulations. However, under extreme conditions there may be a significant competition in obtaining these services.

Response time will likely be slowed. ESF 1, 3, and 12 primary agencies are often “first responders” for transportation incidents, power outages, water main breaks, landslides, and other frequent and typical emergencies. The need to conduct field assessments after a disaster event will slow an agency/departments’ initial response. Faced with requests for services routed through the ECC as well as other potentially competing demands for assistance, agency/department control centers will need to prioritize disaster response efforts. Agency/department response to lower priority requests, therefore, may be substantially delayed.

A significant portion of an agency/department’s workers may be directly affected by the disaster. Some may be unable to report for work for an extended period. Under some conditions, the work tasks and schedules of some employees may be altered.

III. CONCEPT OF OPERATIONS

General

Columbia County Public Works is the primary lead agency for providing ESF 3 technical assistance, engineering, and construction management resources and support during response activities. Should the incident impact areas within the city limits of Dayton or the Town of Starbuck a unified command structure and the ECC will be considered for activation with representation from all three agencies and potentially private-sector agencies, coordinating response and recovery efforts through one common message. Priorities are determined jointly among local officials and lead agencies.

The lead coordinator or IC depending on the magnitude of the incident will mobilize ESF 1, 3, & 12 agency/department designated emergency liaisons as the event demands. Agency/department liaisons will activate/notify their operations center, assign resources to the ECC as required, and ensure the department’s damage assessments and disaster response activities are carried out and reported to the ECC. Agencies/departments will prioritize their response efforts and produce timely and regular assessments to their ESF Liaison.

The lead coordinator and department ECC liaison will meet regularly at the County ECC to evaluate and consolidate the assessment reports, coordinate response activity, allocate resources, and develop timely and regular action plans for submission to the ECC planning section. The coordinator will receive and review the County’s IAP and distribute it to each of the ESFs and their agency/department ECC representatives. Each ECC representative will ensure the plan is relayed to their agency/department and that it is integrated into the agency/department work schedule. Completed activity is reported in each planning operational period.

Close coordination is maintained with federal, state, tribal and local officials to determine potential needs for support and to track the status of response and recovery activities. Support

agency representatives may co-locate with ESF field personnel to coordinate support as necessary.

If needs exceed local resources the county ECC can contact the state EOC for assistance. The federal government may render assistance if needs exceed the capabilities of the county and state, provided the event has received a Presidential Declaration of Disaster.

All public information and news release information regarding public works and/or building inspectors will be coordinated by the County Emergency PIO.

Organization

Each agency/department will have a named liaison (and trained back-up liaisons) to represent the agency within their ESF organization. Each county/city department is expected to have depth at the department liaison position sufficient to cover extended operations. The ECC is expected to have current updated “call out” lists for applicable personnel.

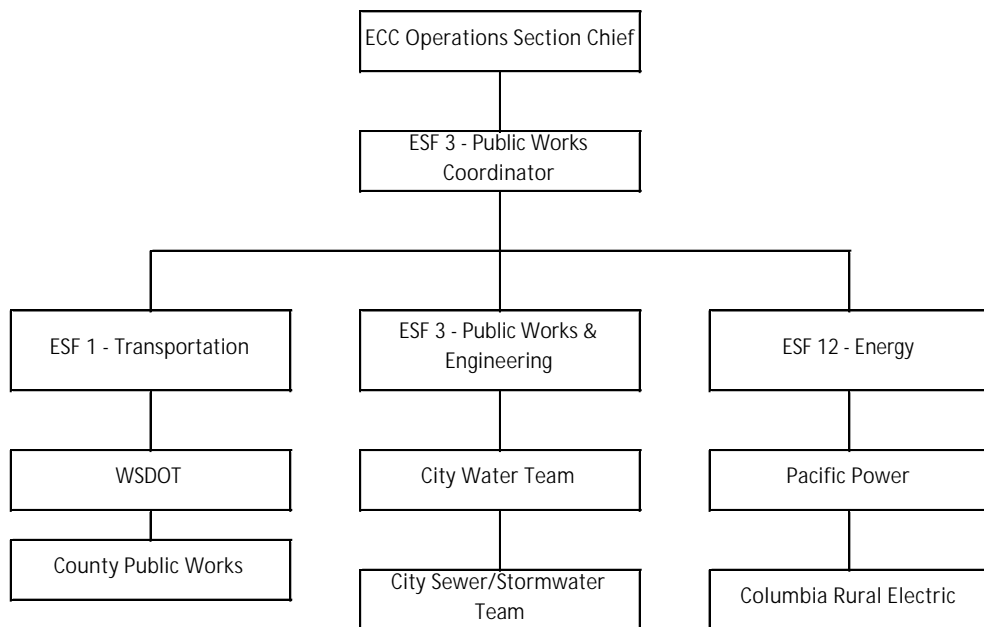


Figure 1: Broad organizational structure showing how coordination of operations may be established during an incident where public works/engineering services may be required in several different areas (multi-hazard event).

Procedures

Columbia County Emergency Management department provides emergency coordination services within the County jurisdiction and to surrounding jurisdictions in accordance with

agreed upon procedures as outlined within local City/Town Ordinances, Interlocal Agreements, Memorandums of Understanding, the Master Mutual Aid Agreement and other agreements (such as emergency declaration resolutions) as determined necessary to protect residents and their property.

Each representative of the response team(s) (public works, emergency management, fire, police, etc.) has its own set of standard operating procedures (SOP) established to achieve the mission, goals and objective to efficiently and effectively implement the capabilities of that department/agency. These SOPs will be coordinated under a unified command structure to achieve common goals related to the impending or existing emergency.

Various support private-agencies have their own standard of operating procedures which will be activated, as determined necessary, under a unified command structure to ensure a coordinated response and recovery from an emergency and/or disaster.

Providing the residents and first/second responders with timely and accurate lifesaving information during major incidents is of highest priority. To the maximum extent possible under emergency conditions, communication and warning functions will be performed in compliance with existing telecommunications regulations and requirements.

The Public Works ESF Coordinator shall mobilize department liaisons as appropriate to the incident if it has not already been completed by the Department Emergency Management (EMD). Upon call-up by the ESF Coordinator or EMD, designated department personnel will report to the ECC for initial briefings and organization. Each ECC liaison will then ensure their department management and personnel are apprised of conditions and ensure they receive a copy of the Incident Action Plan (IAP) as it is developed and modified.

Columbia County and its municipalities will maintain capability to rapidly warn the public when disaster threatens so that residents may take necessary actions to protect themselves and their property.

Mitigation

EMD encourages and promotes mutual aid and cooperation between local jurisdictions and agencies. These organizations are encouraged to participate in a variety of community activities and training exercises to test equipment, identify areas needing improvement or specialized support, and develop and evaluate operational procedures.

Public Works Departments play a critical role in identifying potential natural and technological disasters. Public Works Departments also provide current development support along with monitoring and coordinating implementation of mitigation measures aimed to reduce or prevent damages caused by these events. Planning and coordination of efforts between stakeholders is key to promoting mitigation action plans such as floodplain and floodwater plots, storm water and drainage plans, and transportation and roadway plans (including bridges). In this context, Public Works ESF departments focus mitigation efforts on:

- Ensure field personnel that may be exposed to hazardous conditions are equipped with appropriate personal protective equipment (PPE) and trained in its proper use and care;
- Periodically review *Columbia County Multi-Hazard Mitigation Plan*. Recommend modifications, additions, deletions based on experience and lessons learned and ensure Public Works ESF mitigation plans and/or activities are complementary to and coordinated with the *Columbia County Multi-Hazard Mitigation Plan*.

Columbia County EMD promotes using affiliated and unaffiliated volunteers as resources to fill gaps identified while developing implementation strategies. This includes determining knowledge, skills, and abilities of individual volunteers and developing job descriptions where volunteers can be assigned.

Columbia County agencies and jurisdictions encourage and promote resource typing, both individual and equipment capabilities, including entering this information into electronic database such as WebEOC to provide real-time crisis management.

Columbia County encourages participation of local residents at public education events offered throughout the year, which are focused in the area of community involvement in the areas of prevention, protection, mitigation, response and recovery.

Preparedness

The ESF 3 lead role is to develop a command and control structure that when activated will ensure continuity of operations within the county through public works and engineering support as needed. Steps should be taken to ensure Public Works agencies:

- Develop and maintain current listing of call up managers and field crews. Current listing of buildings and infrastructure, prioritized for initial response;
- Identify and train emergency liaisons in ECC and ICS operations;
- Train departmental staff in reporting requirements, protocols and procedures;
- Take actions necessary (exercise plans) to ensure personnel is prepared to accomplish internal agency/departmental response and recovery activities and ESF requirements;
- Provide timely updates of ECC personnel to local Public Safety Communication Center.
- Public Works Departments maintain personal protection equipment for their employees. Also, maintain some stock of extra parts, emergency/temporary signs, sand and gravel, and other resources.
- Ensure personnel are cross-trained, so they can function where the greatest need is.

Response

Activities within the ESF 3 include but are not limited to:

- Coordination and support of infrastructure risk and vulnerability assessments;
- Participation in pre-incident activities, such as the positioning of assessment teams and contractors, and deploying advance support elements;
- Participation in post-incident assessments of public works and infrastructure to help determine critical needs and potential workloads;
- Implementation of structural and non-structural mitigation measures, including deployment of protective measures, to minimize adverse effect or fully protect resource prior to an incident;
- Providing emergency repair of damaged infrastructure and critical public facilities (temporary power, emergency water, sanitation systems, etc.). Supporting the restoration of critical navigation, flood control, and other water infrastructure systems, including drinking water distribution and wastewater collections systems. Where appropriate, activities to restore infrastructure (e.g. debris removal, temporary housing, etc.) are closely coordinated with ESF 11-Agriculture and Natural Resources. As appropriate, ESF 3 requests ESF 11 to provide technical support to help facilitate ESF 3 efforts to obtain necessary regulatory (cultural and environmental) clearances for infrastructure restoration activities. ESF 3 will seek technical assistance from contracted disability professionals to ensure that accessibility standards are addressed during infrastructure restoration activities.
- ESF 3 may be responsible for managing, monitoring, and/or providing technical advice in the clearance, removal, and disposal of debris from public property and the re-establishment of ground and water routes into impacted areas. The scope of actions related to debris may include waste sampling, classification, packaging, transportation, treatment, demolition, and disposal. For purposes of ESF 3, the term “debris” includes general construction debris that may contain inherent building material contaminants, such as asbestos and paint. Debris may include livestock or poultry carcasses and/or plant materials. When ESF 3 is activated for a debris mission, ESF 3 may also: collect, segregate, and transport to an appropriate staging or disposal site hazardous materials that are incidental to building demolition debris, such as household hazardous waste and oil and gas from small motorized equipment; remove and dispose of Freon from appliances; and remove, recycle, and dispose of electronic goods. The removal of hazardous materials containers is covered under ESF 10.
- The management of contaminated debris will be coordinated with ESF 10. The scope of actions related to contaminated debris may include waste sampling, classification, packaging, transportation, treatment, demolition, and disposal of contaminated debris and soil. For purposes of ESF 3, contaminated debris is intended to mean debris (general construction debris/rubble) that is being addressed within the debris zone and to support the overall objectives of ESF 3, such as clearing roads and public property.
- Providing coordination and technical assistance (to include vessel removal, significant marine debris removal, and hydrographic survey) to effect the rapid recovery and reconstitution of critical waterways and ports.

- Providing technical assistance to include engineering expertise, construction management, contracting, inspections of private/commercial structures, and real estate services;
- Implementation and management of public assistance programs and other recovery programs between and among federal, state, and local officials, to include efforts to permanently repair, replace, or relocate damaged or destroyed public facilities and infrastructure. Recovery activities are coordinated with ESF 14-Long-term Community Recovery.

Recovery

The recovery and restoration phase of a disaster may actually last for years. The activities that take place during this phase will depend on the type of incident that occurred. During the initial part of the recovery phase it will be coordinated out of the ECC or other designated facility. When the situation reaches a point where the ECC can be deactivated, follow-up activities will include:

- Public Works departments will continue to communicate with the ECC and coordinate recovery activities as priorities and resources allow. They will continue to assist with damage assessment reports and other requirements necessary for obtaining financial assistance for the county and involved cities or towns;
- Upon ECC deactivation, follow-up coordination will be assigned to a specific agency or Public Works department;
- Support for the public works personnel is also part of recovery and returning to normal operations. This support may include counseling, or Critical Incident Stress Management (CISM). CISM is available, at no charge, through the office of the Columbia County EMS coordinator.

IV. RESPONSIBILITIES

Primary Agencies

ESF Coordinator:

- Coordinates meetings, plans, exercises, training, and other activities within the County, the private-sector, and ESF 3 support agencies.

Primary Response Agency:

- Provides direction and coordination of ESF 3 response and recovery-related activities and resources.

Support Agencies

Columbia County Emergency Management Department (EMD):

- EMD is responsible for maintaining and organizing the County ECC.
- The ECC coordinates with public works, private contractors, and other departments and agencies as necessary to obtain resources and assets to provide public works and engineering services and medium and heavy rescue. The county ECC maintains contact with the state EOC as necessary.
- Responsible for the coordination of regular updates and maintenance of the Comprehensive Emergency Management Plan, Emergency Support Functions, and Annexes.

Department of Agriculture (USDA and NRCS):

- Provides technical personnel to evaluate damage to water control facilities. The Natural Resources Conservation Service (NRCS) is the regional contact for this support.

National Oceanic and Atmospheric Administration (NOAA):

- Provides hydrographic survey assets and expertise as part of a coordinated response/restoration of critical waterways, channels, and ports
- Provides scientific support in assessing impact to local areas using population data, storm track, knowing areas of damage, and general information on currents and winds to predict areas of high debris density and abundance.

Environmental Protection Agency and Local Utility Agencies:

- Gathers, assesses, and shares information on energy system damage and estimations on the impact of energy system outages within affected areas as a designated energy sector-specific agency;
- 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.
- Conducts infrastructure protection activities for drinking water and water treatment agencies in the water sector, in accordance with its responsibilities as a designated water sector-specific agency
- 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;
- Assists in identifying water and wastewater needs, including personnel, electrical power, and treatment chemicals;
- Assists in conjunction with state and tribal agencies and permitting authorities in determining the operating status of water and wastewater systems;

- Provides assistance regarding municipal solid waste facilities. Provides technical assistance for nonhazardous waste management, including debris management and recycling/reuse opportunities;
- Identifies locations of, and provides safety guidance for, areas affected by hazardous materials;
- Assists in investigation and intelligence analysis for hazardous materials incidents involving contaminated water and wastewater systems, pursuant to existing EPA statutory authorities;
- Provides expertise on waste and debris disposal options.

Department of Health and Human Services and Local Public Health Agencies:

- Supplies engineering and environmental health personnel to assist, in conjunction with the Environmental Protection Agency (EPA), if required, in assessing the status of water, wastewater, and solid waste facilities;
- Provides guidance related to health problems associated with hazardous materials;
- Assists in determining the suitability for human consumption of water from local sources;
- Enables contaminated debris management activities by coordinating and/or providing resources, assessments, data, expertise, technical assistance, monitoring, and other appropriate support;
- Provides situational awareness regarding water and wastewater needs at critical health care and other CIKR sector facilities.

Department of Transportation (WSDOT) and Local Public Works Agencies:

- Provides technical expertise and assistance for repair and restoration of transportation infrastructure (highways, bridges, port facilities and railways) and provides advice and assistance on the transportation of contaminated materials;
- Provides engineering personnel and support to assist in damage assessment, structural inspections, debris clearing, and restoration of the County’s transportation infrastructure.

V. RESOURCE REQUIREMENTS

Resources

Local jurisdictions, agencies, and service organizations should identify and develop their resources, including trained personnel, primary and backup equipment, and backup power options. When necessary, the requisite personnel and equipment can be made available to fulfill the roles and responsibilities identified in this ESF. As a minimum, all agencies, jurisdictions and organizations should expect to sustain operations for 72 hours, and have other resources programmed for use up to 14 days.

Disasters are very expensive and a major responsibility of the primary agency or Finance/Admin unit if designated by the incident commander is to begin the process of tracking and recovering costs at the beginning of any activation. There is never a guarantee that the county will be reimbursed. Even when reimbursement occurs, rarely is the amount received equal to the expense incurred and it is a long and complex process.

To position the County for the best possible outcome, whenever the ECC is activated for an incident or event that creates substantial damage or costs, and specifically one that is likely to require public and/or individual assistance available under the Stafford Act, Incident Command should immediately:

- Establish a system for tracking all costs.
- Emphasize the importance of tracking cost to all departments/agencies.
- Differentiate between the costs directly related to a disaster and those incurred under regular operating costs (i.e. sheriff vehicle usage for evacuating individuals following a disaster and vehicle use for responding to 911 calls outside the disaster).

Not only is this accounting necessary for reimbursement purposes, but it also provides the public with information that demonstrates the county’s commitment to fiscal responsibility with public funds. Because of the Federal and State regulations that must be met, this position is critical in the overall Emergency Management function at any level of activation.

VI. RESOURCES

Available Resource Capabilities	Type	Quantity
Air Compressor	Type II	1
Grader	Type II	2
Attachments – Rear Ripper		4
Attachments – V Plow		1
Attachments – Wing		1
Hydraulic Excavator (Medium)	Type II	1
Hydraulic Excavator (Compact)	Type I	1
Road Sweeper	Type IV	1
Trailer, Equipment Tag	Type I / Type II	1 / 1
Truck, On Road Dump	Type II / Type III	4 / 1
Truck, Plow	Type I	4
Truck, Tractor Trailer	Type I / Type II	1 / 1
Water Truck	Type I	1
Wheel Loader Backhoe	Type I	1
Wheel Loader (Small)	Type I	1
Wheel Loader (Medium)	Type III	1
Wheel Loader, Skid Steer	Type I	1

VII. REFERENCES

- A. Chapter 38.52 Revised Code of Washington (RCW), Emergency Management