

ESF 3

Emergency Operations Plan – Emergency Support Function 3 *Public Works and Engineering*

Section 1: Introduction

1.1 Lead Agency

Department of Transportation (DOT)

1.2 Supporting Agencies

- Department of Environmental Protection (DEP)
- Department of Agriculture, Conservation, and Forestry (DACF)
- Department of Public Safety - Fire Marshal's Office (FMO)
- Department of Administrative and Financial Services - Bureau of General Services (BGS)
- Department of Health and Human Services - Maine Center for Disease Control and Prevention (Maine CDC)
- Department of Economic and Community Development (DECD)
- Maine Turnpike Authority (MTA)
- Public Utilities Commission (PUC)
- Department of Defense, Veterans, and Emergency Management
 - Maine Emergency Management Agency (MEMA)
 - Maine National Guard (MENG)
- Department of Corrections (DOC)
- Department of Labor (DOL)
- U.S. Coast Guard (USCG)

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Section 2: Purpose, Scope, Situation, and Assumptions

2.1 Purpose

Emergency Support Function 3 (ESF-3), Public Works and Engineering, details how the state of Maine will provide public works, inspectional, and engineering assistance to county and local governments in support of life safety and protection activities prior to, during, and immediately following a major disaster or emergency.

2.2 Scope

- For ESF-3 purposes, emergency public works and engineering activities include:
 - Coordination of resources to support post-disaster evaluation of buildings and similar structures to determine safety and usability.
 - Coordination of resources to support the restoration of transportation infrastructure, implement emergency repairs to public and private facilities, and other appropriate construction services (e.g., electrical, plumbing, soils, etc.).
 - Coordination of resources to support emergency demolition and/or stabilization of damaged structures and facilities designated as hazards to public health and safety.
 - Engineering, procurement, and debris clearance.
 - Provision or restoration of emergency power supplies for critical facilities.
 - Provision or restoration of emergency supplement to water and sewer services.
 - Provision of emergency supply potable water.
 - Provision of water for firefighting.
- As an incident requires, or at the direction of the MEMA Director, ESF-3 will be activated to coordinate resources to support public works and engineering response.
- All agencies assigned responsibilities within ESF-3 will develop and maintain the necessary plans, standard operating procedures, mutual aid agreements, and model contracts to successfully accomplish their tasks.
- State assistance through ESF-3 will only be provided once a city or town has fully committed all public works, inspectional, and engineering resources available to it, including resources available through existing mutual aid agreements and private-sector resources that the jurisdiction may have under contract.
- Local public works, inspectional, and engineering assets will remain in the control of the respective jurisdiction.
- ESF-3 activities will be prioritized in the following manner:
 1. Life Safety, including the evacuation of individuals from at-risk areas.
 2. Emergency repair or demolition of infrastructure and critical facilities, including all aspects of the state of Maine's construction, water, waste water, and solid waste infrastructure.
 3. Emergency debris clearance of affected transportation corridors to enable passage of emergency traffic.
 4. Management of debris operations to allow utility crews access to facilitate repairs of other damaged infrastructure.
- Hazardous materials will need special handling from appropriately trained and equipped teams.
- State assistance is intended to support life safety, immediate public health and safety needs, and the re-opening of transportation corridors and performance of temporary repairs to facilitate the

passage of emergency traffic, not to restore damaged infrastructure to pre-disaster conditions. Permanent repairs and final debris removal/disposal following an emergency or disaster remain the responsibility of local governments.

2.3 Situation

During an emergency or disaster, a variety of hazards and disruptions to services could occur. Roads and bridges could be damaged or destroyed, covered with water, mud or deep snow, or blocked by debris. Ground, air, rail, and water routes may be impassable or severely obstructed in the affected area. Homes, businesses, major industries, and commercial enterprises may be weakened or destroyed. Signs and signals may be destroyed or may not be visible due to the event. Water systems and/or wastewater facilities may be damaged or threatened, storm drains may be damaged or plugged, and many structures may be damaged. Portions of the state of Maine may be physically isolated due to an event. Critical facilities or equipment may be damaged or inaccessible, resulting in scattered or widespread areas affected by power outages, loss of water, or loss of wastewater treatment facilities. Normal communications systems may be damaged or overloaded. The structural integrity of many public buildings, bridges, dams, roadways, and other facilities may be compromised, posing a risk to emergency workers and the public. Many of the facilities will need to be inspected, reinforced, demolished, or isolated to ensure public safety.

A large enough event may adversely affect the ability of local responders to perform their emergency duties; some employees may not be able to report for work. Local governments have a limited capacity and an immediate requirement to provide services, which may become quickly overwhelming following a catastrophic incident. Local governments will depend on mutual aid and other forms of assistance in order to respond to and recover from the incident. Need for public works and engineering services may exceed state resources, and as such, federal assistance may be required to identify and deploy resources from outside the affected area to ensure a timely, efficient, and effective response and recovery from the event.

2.4 Assumptions

- County and local governments have emergency management resources, plans, and procedures already in place.
- ESF-3 responsible agencies have developed internal plans and procedures to respond to a disaster or emergency (e.g., State of Maine Debris Management Plan).
- The responsible agencies are assigned to ESF-3 to support the restoration of public works infrastructures after a major disaster or emergency. Although the composition of the responding agencies will likely change as a result of the nature of the event and planning process, it is anticipated that these agencies will constitute the basis for providing public works, inspectional and engineering type assistance to county and local governments.
- Many incidents, such as power outages, water and sewer service disruptions, and emergency building inspections are local in scope and can be addressed by county or local government or state agencies as part of normal day-to-day operations using resources readily available to them.
- Demand on local resources in anticipation of or in response to a major threat may quickly overwhelm local public works, inspectional and engineering capabilities for personnel and equipment.
- Local public works, inspectional and engineering resources may be damaged and potentially

unavailable to support local response efforts requiring immediate state assistance. A multitude of basic public works, inspectional and engineering services will be needed from the state following a disaster to clear debris, perform damage assessments, conduct structural evaluations, make emergency repairs to essential public facilities, reduce hazards by stabilizing or demolishing structures, and provide emergency water for human health needs and firefighting.

- It is anticipated that the majority of the requests for public works, inspectional and engineering services will concern the repair and restoration of emergency access routes, including the clearance, removal, storage, and disposal of disaster debris.
- Rapid assessment of damages in disaster areas will be necessary to determine potential workloads and prioritization.
- Emergency environmental and other legal waivers for the disposal of debris, animal carcasses, construction material, and other waste will need to be secured, as debris may include trees, rocks, dirt and sand, building materials, metal, garbage and sewage, damaged vehicles, various hazardous materials, tires, and personal property. Unattended and long-standing debris may pose safety and health threats to the public.
- Legal requirements that would delay procurement of contracting services or the purchasing of materials will need to be temporarily waived. Support services for feeding, clothing, sheltering, and equipping workers may need to be coordinated with ESF-6, Mass Care.
- The state of Maine maintains a Debris Management Plan which describes the activities and coordination required to clear, remove, monitor, store, and dispose of debris deposited along or immediately adjacent to public rights-of-way.
- There are several private companies and municipal utilities that may provide emergency services for the response effort to help restore critical infrastructure. There are natural and propane gas utilities, electric and cable utilities, excavation and construction companies, and environmental specialty contractors.
- State agencies may need to immediately deploy resources from unaffected areas of the state of Maine to ensure an effective and efficient response.
- Large numbers of engineers, inspectors, construction workers, equipment operators, and other skilled personnel, along with equipment and supplies from outside the disaster area, may be needed.
- Depending on the magnitude of the incident, resources from other states or the Federal Government may not be available for use in Maine until as long as 72 hours after the incident occurs.

Section 3: Concept of Operations

3.1 General

This annex will be activated at the direction of Maine Emergency Management Agency (MEMA) when there is the potential for a disaster or an existing disaster requiring statewide coordination of resources. The lead agency will provide direction to and work in conjunction with the support agencies to coordinate the activities of ESF-3.

The ESF-3 lead agency will ensure that requests for assistance assigned to ESF-3 are carried out in as efficient a manner as possible with prioritization for the protection of life and property

Each responsible agency/organization supporting this annex shall designate a minimum of four trained persons to serve as a representative for their respective agency/organization at the State Emergency Operations Center (SEOC) to support ESF-3 activities.

The objectives of ESF-3 are:

- Establish a framework for state-level public works, inspectional, and engineering related emergency preparedness, mitigation, response, and recovery activities.
- Coordinate state-level public works, inspectional, and engineering related response and recovery operations to maximize the use of resources.
- Share information and coordinate response activities across pertinent state agencies regarding public works, inspectional, and engineering-related requests for assistance in a manner that ensures consistency with established state policies and procedures.
- Monitor and mitigate potential effects of a disaster on critical infrastructure before, during, and after an incident, with particular attention to problems that may threaten public safety or disrupt response activities.
- Provide situational awareness and expertise on the status of public works and engineering related infrastructure in Maine and neighboring states to the SEOC.
- Provide technical assistance and evaluations, including engineering expertise, construction management, contracting and real estate services.
- Coordinate resources to conduct safety inspections and other assistance for first responders.
- Direct state assistance and emergency contracting services for repair and restoration of water, wastewater and solid waste facilities.
- Coordinate resources to support emergency debris management operations for passage of emergency response personnel, equipment, and supplies.
- Coordinate resources to support the emergency repair and restoration of damaged emergency access routes necessary for the transportation of emergency rescue personnel and supplies.
- Coordinate resources to support emergency demolition and stabilization of damaged structures, as appropriate, to facilitate emergency response operations.
- Coordinate resources to support the emergency demolition or stabilization of dams.
- Process all public works and engineering assistance requests from local governments and other ESFs.

3.2 Activities

Responsible agencies for ESF-3 should conduct the following actions:

a. Prevention

- Communicate and share information across agencies with public works, inspectional and engineering responsibilities.
- Collaborate and coordinate on public works, inspectional, and engineering related prevention and security initiatives.
- Identify opportunities to collaborate on protection of critical public works, inspectional and engineering related infrastructure and key resources in the state of Maine.
- Identify potential emergency public works, inspectional, and engineering issues and collaborate to develop or recommend protocols, procedures, and policies to prevent or mitigate their effects.

b. Preparedness

- Notify MEMA of any changes that may impact the operation of this ESF.
- Participate in meetings of ESF stakeholders if coordinated by MEMA to review and update the ESF annex.
- Develop and maintain internal agency operational plans and procedures to support ESF-3 activities.
- Maintain current inventories of agency facilities, equipment, materials and supplies, and special capabilities and personnel throughout the state.
- As needed, conduct assessments of ESF capabilities to identify potential resource shortfalls.
- Develop plans to address identified shortfalls of resources.
- Maintain a list of construction contractors and engineering firms with active contracts with the state, who would be available for infrastructure repairs (MEMA may also reference Associated General Contractors of Maine Memorandum of Understanding).
- Maintain an alternate list of contractors, inspectors, and engineers who do not have active contracts, but who have expressed interest in providing infrastructure repairs.
- Develop procedures/protocol to support the evaluation of damage to infrastructure in the threatened and/or impacted area and, as appropriate, task personnel for response and recovery work.
- Complete appropriate training.
- Designate staff that will be available to support ESF-3 activations.
- Participate in exercises and training in order to test, validate, and provide working experience for ESF-3 representatives.
- Manage resolution of any ESF-3 outstanding after-action issues from previous activations or exercises.

c. Response

i. Pre-Impact

- ☐ Provide at least two representatives to the SEOC to support ESF-3. A total of four personnel must be trained to support the lead agency.
- ☐ Maintain communications with the SEOC, obtain status reports, and keep the SEOC informed of progress of assigned tasks.

- ☐ Notify the appropriate points of contact at each respective ESF-3 agency and organization to pre-position resources and response personnel, as needed.
- ☐ Review existing plans and procedures.
- ☐ Ensure respective ESF-3 agency and organization decision makers are kept informed of the situation.
- ☐ Test communications systems.
- ☐ Coordinate information to verify public works, inspectional and engineering activities, capabilities, and inventories and report this information on a regular basis to the SEOC Planning and Operations Sections.
- ☐ Coordinate with other ESFs in anticipation of projected public works, inspectional or engineering related needs and coordinate appropriate efforts
- ☐ Identify and coordinate the mobilization and pre-positioning of response resources when it is apparent that ESF-3 or state public works, inspectional and engineering resources will be required, or as requested by the SEOC Manager.
- ☐ Ensure appropriate staffing levels at the SEOC for ESF-3 to support the mission during each shift.

ii. Initial Response

- ☐ If agency has not already done so, provide at least two representatives to the SEOC to support ESF-3. A total of four personnel must be trained to support the lead agency.
- ☐ Designate appropriate staff to support the state-level response effort.
- ☐ Gather and provide situational awareness.
- ☐ Verify inventories of available resources and provide a summary listing to the SEOC Operations and Planning Section Chiefs.
- ☐ Establish communications with appropriate deployed agency field personnel to coordinate resources to support response efforts.
- ☐ Develop and prioritize strategies to coordinate resources to support initial response actions, including equipment and personnel.
- ☐ Coordinate the pre-positioning of resources at the designated staging area(s), as needed.
- ☐ Implement pre-determined agency cost accounting measures for tracking overall ESF-3 personnel, equipment, materials, and other costs incurred during emergency response actions.
- ☐ Coordinate the execution of legal waivers concerning state construction contracts, debris disposal, and other emergency response actions to ensure rapid restoration of services.
- ☐ Coordinate with the federal ESF counterpart, as needed.

iii. Coordination with other ESFs

- ☐ U.S. Coast Guard, to prioritize ports and waterways for emergency debris clearance and repair in order to assess affected areas.
- ☐ ESF-1, Transportation, to commit agency resources for debris clearance, removal, transportation/roadway work, and other transportation tasks as needed.
- ☐ ESF-1, Transportation, to provide and/or organize resources for emergency closure and/or repair of damaged segments of state roadways, subject to existing agreements.
- ☐ ESF-1, Transportation, to prioritize public works for debris clearance and removal in order to access affected areas.
- ☐ ESF-6, Mass Care, in providing emergency debris clearance for sheltering operations, safe passage for shelter workers/equipment, and other related matter.

- ESF-8, Public Health and Safety, Medical Services, Mortuary, and Mass Fatality, in providing emergency debris clearance and safe passage for hospitals, clinics, and other medical facilities and their staff, and other related matters.
- ESF-14, Short-Term Recovery, develop strategies for supporting recovery operations.

iv. Ongoing Response

- Coordinate ongoing public works, inspectional and engineering resource support requests.
- Reassess priorities and strategies to meet the most critical of public works, inspectional and engineering needs.
- Track committed resources and provide regular updates to the SEOC Operations Section Chief on the status of all missions assigned to ESF-3.
- Coordinate the provision of personnel to assist in completing Initial Damage Assessments/Preliminary Damage Assessments (PDAs), as needed.
- Provide technical assistance on flooding, water management, structural integrity assessments, public drinking water supplies, wastewater treatment facilities, and impact assessments of infrastructure.
- Obtain information on possible and/or actual damages to infrastructure in the threatened and/or impacted areas
- Coordinate with other ESFs represented in the SEOC, as appropriate, to anticipate projected public works, inspectional and engineering needs and coordinate appropriate response efforts.
- Continue to gather and provide situational awareness.
- Provide public works, inspectional and engineering information for the Incident Action Plan (IAP) for the next operational period and for ongoing Situation Reports.
- Ensure that the ESF-3 desk at the SEOC is staffed on a continuous basis, as determined by the SEOC Planning and Operations Section Chiefs.
- Ensure that ESF-3 staff briefings are conducted during shift changes and at designated times throughout the event.

d. Recovery

- Prioritize and coordinate resources for the repair and restoration of damaged public and private systems, including public water supply, wastewater treatment and debris disposal.
- Provide technical assistance and coordinate resources to support the monitoring, removal, sorting, and disposal of debris from public and private property, in accordance with the State of Maine Debris Management Plan.
- Facilitate expedited permitting for repair/demolition work to be performed.
- Coordinate resources, including engineers, inspectors, skilled personnel, and construction workers, necessary equipment and materials, to assist in recovery operations.
- Provide technical assistance to affected jurisdictions in developing a prioritized list for the demolition or stabilization of damaged public and private structures and facilities that pose an immediate hazard or safety risk to the public health.
- Continue to coordinate with the federal ESF counterpart, as needed.
- Provide assistance, technical expertise, and personnel to support MEMA damage assessment teams.
- Coordinate and/or provide technical assistance, personnel, and resources for ongoing restoration of transportation infrastructure.
- Participate in after-action meetings and review after-action reports, as appropriate.

- Draft recommendations for after-action reports and other reports, as appropriate.

e. Mitigation

- Identify potential emergency transportation issues and collaborate to develop or recommend plans, protocols, procedures, and policies to prevent or mitigate their effects.
- As needed, conduct assessments of ESF-3 capabilities to identify potential resource shortfalls.
- As needed, develop plans to mitigate identified shortfalls of resources.

Section 4: Responsibilities

4.1 Lead Agency

Department of Transportation

- Coordinate to deploy public works and engineering-related resources to support emergency response efforts.
- DOT has responsibility for the design, construction, and maintenance of all state roadways, bridges, and tunnels; for overseeing traffic safety and engineering activities to ensure safe road and travel conditions; and for transit initiatives for the state of Maine.
- Coordinate with other responsible agencies in directing public works, inspectional, and engineering resources, including engineers, skilled personnel, inspectors, construction workers, equipment, and materials for the following tasks:
 - Removal of debris to restore access.
 - Repair and restoration of water and wastewater facilities.
 - Repair and restoration of critical public services and facilities.
 - Repair or demolition of damaged structures and facilities, as appropriate.
 - Completion of damage assessments.
- Coordinate with federal ESF counterpart, as needed.
- Coordinate ongoing public works, inspectional, and engineering resource support requests.
- Commit and deploy agency resources in coordination with ESF-3.
- Reassess priorities and strategies to meet the most critical of public works and engineering needs.
- Track committed resources and provide regular updates to the SEOC Operations Section Chief on the status of all missions assigned to ESF-3.
- Coordinate with other ESFs represented in the SEOC, as appropriate, to anticipate projected public works, inspectional and engineering needs, and coordinate appropriate response efforts.
- Ensure that the ESF-3 desk at the SEOC is staffed on a continuous basis, as determined by the SEOC Planning and Operations Section Chiefs.
- Ensure that ESF-3 staff briefings are conducted during shift changes and at designated times throughout the event.
- Make available to ESF-3 an inventory of agency public works, inspectional and engineering resources to include those located at headquarters, district, regional, or other affiliated offices statewide.
- Ensure that necessary cost accounting measures are being used and that summary reports are generated, as needed, and shared with SEOC Command Staff.
- Support other ESFs according to established priorities.
- Coordinate with other ESFs to obtain information related to vendors, volunteer groups, and other organizations that may be able to supplement local and state public works, inspectional, and engineering resources.

4.2 Supporting Agencies

a. Department of Economic and Community Development

- DECD is the agency responsible for promulgating and maintaining the Maine State Building Code. DECD certifies municipal and state building inspectors.
- Inspectors conduct building and structure assessments and enforcement of the building codes and regulations for non-commercial buildings. They are trained to identify vulnerabilities to structures based on the specific criteria and regulations. These services may be used to assess the structural integrity of buildings and structures post-incident, as part of MEMA damage assessment teams or in assisting local communities.

b. Department of Agriculture, Conservation, and Forestry – Bureau of Resource Information and Land Use Planning and Maine Forest Service

- DACF will coordinate with ESF agencies to commit resources, as needed, in support of public works and engineering response efforts.
- Under ESF-3, DACF may provide a range of technical assistance, including, but not limited to: civil and structural engineering support; facilities, water resource, or flood control engineering; and flood hazard forecasting. DACF may also provide specialized equipment and staffing support, such as chainsaw crews for debris management operations.

c. Department of Administrative and Financial Services – Bureau of General Services

- BGS is the state agency responsible for public building planning, design, and construction; facilities maintenance and management; real estate services; and leasing, acquisition, renovation, and demolition of state public buildings.
- BGS may provide construction management services; support in identifying, leasing, or seizing property for disaster operations; or damage assessment staff support through existing contracts with vendors and consultants.

d. Department of Environmental Protection

- DEP is responsible for ensuring clean air and water, the safe management of toxics and hazards, the recycling of solid and hazardous wastes, the timely cleanup of hazardous waste sites and spills, and the preservation of wetlands and coastal resources.
- Provide engineers, water quality/water treatment specialists, specialized testing equipment, hazardous material technicians/specialists, or environmental waivers to assist emergency response and recovery.

e. Maine Turnpike Authority

- Coordinate the emergency use, repair, and restoration of the Maine Turnpike.
- Coordinate with ESF-3 in the deployment of equipment and technical personnel to support public works and engineering emergency response efforts.
- Assist the DOT, when requested.

f. Department of Health and Human Services – Maine Center for Disease Control and Prevention

Provide information and personnel to support disasters affecting Maine’s drinking water and wastewater systems.

g. Department of Public Safety – Fire Marshal’s Office

- FMO is the agency responsible for reviewing all commercial building plans, based on the NFPA 101 regulations.
- Inspectors conduct building and structure assessments and enforcement of this regulation and also ensure that the commercial buildings are Americans with Disabilities Act (ADA) compliant. They are trained to identify vulnerabilities to structures based on the specific criteria and regulations.

h. Department of Defense, Veterans, and Emergency Management - Maine Emergency Management Agency

Provide engineers and staff from the state dam safety program to assist with engineering activities.

i. Department of Defense, Veterans, and Emergency Management - Maine National Guard

Provide major equipment (e.g., loaders, dump trucks, dozers, chain saws, etc.) and personnel to operate equipment if requested.

j. Department of Labor

Provide consultation on health and safety issues.

k. Department of Corrections

Provide resources as available to assist in debris management and general labor.

l. U.S. Coast Guard

Provide personnel and equipment to support debris management activities in tidal waters (to include ice breaking operations).

m. Other Agencies

Other agencies not explicitly covered in this annex may have authorities, resources, capabilities, or expertise required to support ESF-3 activities. These agencies may be requested to support ESF-3 activities, as needed.

Section 5: Supplementary and Procedural Documents

- State of Maine Debris Management Plan
- Maine State Hazard Mitigation Plan

Section 6: References

- Americans with Disabilities Act
- Federal National Fire Protection 101
- DAFS Agreement to Purchases/Services Contract
- Maine State Building Code
- Maine Title 29-A
- Maine Title 37-B