

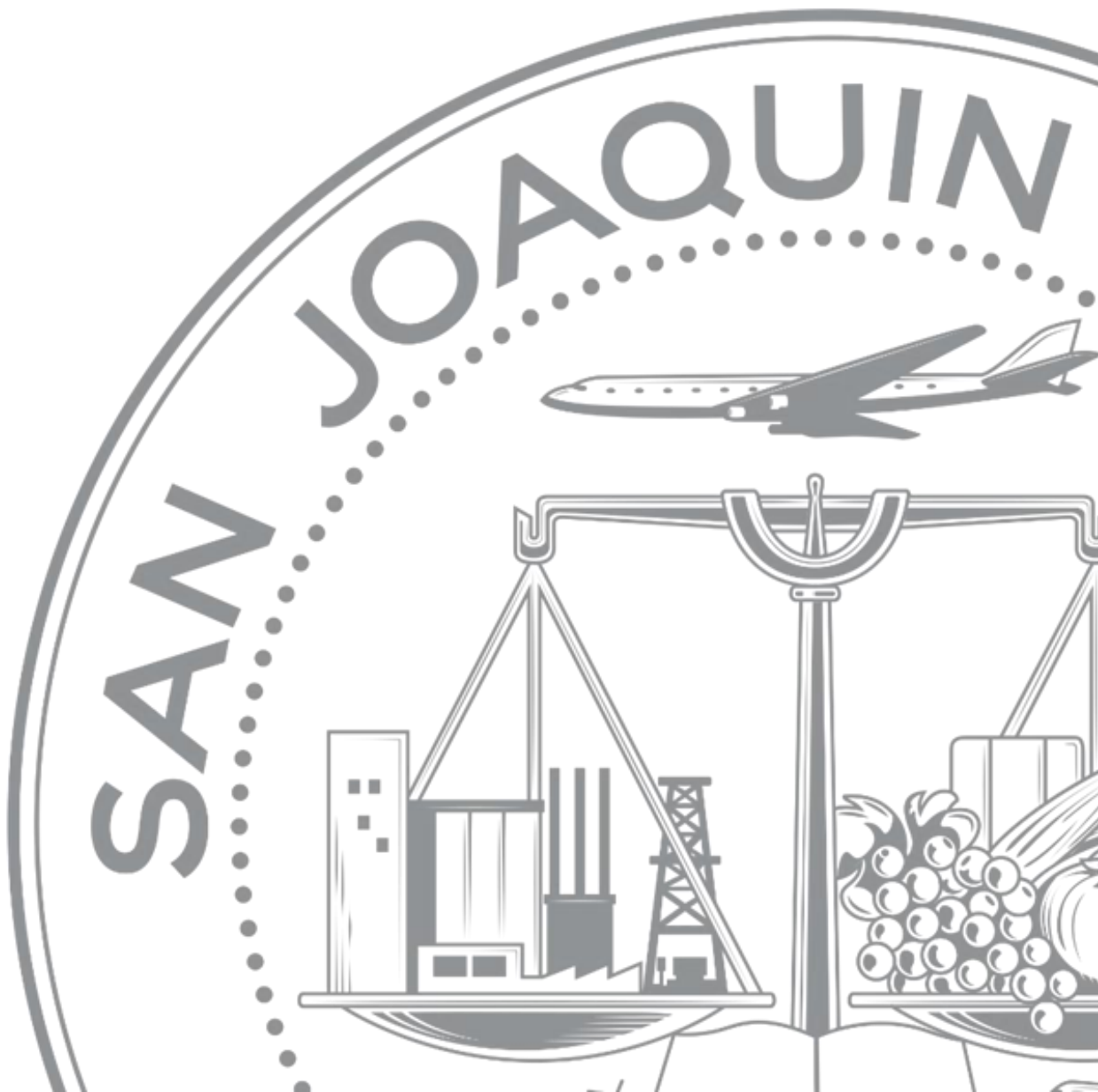
SAN JOAQUIN

—COUNTY—

Greatness grows here.

Emergency Support Function - 03 Construction and Engineering Annex

December 2025



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Letter of Promulgation

This Emergency Support Function Annex to the County of San Joaquin Emergency Operations Plan describes how San Joaquin County will manage an emergency incident or disaster mitigation, preparedness, response, and restoration related to this Emergency Support Function. All Primary and Support agencies identified as having assigned responsibilities in this Emergency Support Function shall perform the emergency tasks as described, including preparing and maintaining Standard Operating Guidelines and Procedures by carrying out the training, exercises, and plan maintenance needed to support the plan.

The Emergency Support Function plan was developed using the Comprehensive Planning Guide 101 version 3 from the Federal Emergency Management Agency and California's emergency planning guidance documents. Adoption will occur following the established maintenance schedule; however, the plan may be modified in the interim without prior approval and formal adoption under the direction of the Director of Emergency Operations. The modified plan will be relayed digitally to all Primary and Support agencies identified as having assigned responsibilities in this Emergency Support Function. In addition, the plan will be available on the San Joaquin County Office of Emergency Services webpage and within the Advanced File Library of WebEOC. The Primary Assigned agency will coordinate the review and update of the plan with the Support agencies as needed at least every three years. This Emergency Support Function plan supersedes any previous versions.

This Emergency Support Function Annex applies to Primary and Support agencies within San Joaquin County who are assigned responsibilities in *Section 4.5 Responsibilities by Emergency Support Function* of the All-Hazard EOP and/or identified within the Emergency Support Function Annex.

This plan/annex will be formally promulgated by the chairperson of the Disaster Council of San Joaquin County at the next regularly scheduled meeting. The Disaster Council is empowered by County Ordinance to review and approve emergency and mutual aid plans.



Paul Canepa
Chair, San Joaquin County Disaster Council
Director of Emergency Services

12-15-2025

Date

Plan Administration

San Joaquin County Office of Emergency Services Director of Emergency Operations will coordinate review, revise, and re-promulgate this annex at least once every two years or when key changes occur, such as lessons learned from exercises or real events. Changes may be made by the San Joaquin County Director of Emergency Operations without formal Disaster Council's approval.

Record of Changes

All updates and revisions to this annex will be tracked and recorded in the following table. This process will ensure that the most recent version of the plan is disseminated and implemented by emergency response personnel.

Date	Change No.	Change made by (name/title)	Summary of Changes
	1	Lowell Allen	Updated- Updated in accordance with plan revision schedule.
6/24/25	2	David Tolliver	
7/28/25	3	Robert King	Updated language Introduction
7/28/25	4	Robert King	Updated language Guidelines
7/28/25	5	Robert King	Updated language in Planning Assumptions
7/28/25	6	Robert King	Grammar, spelling, punctuation and formatting.

Plan Distribution

San Joaquin County Office of Emergency Services maintains the San Joaquin County Emergency Operations Plan in the San Joaquin County Emergency Operations Center Library. This document upon signature will become an annex to the Emergency Operations Plan. The primary method of Emergency Operations Plan distribution is electronic, with a copy available in the Advanced File Library of the San Joaquin County Web based information-sharing database WebEOC and on the San Joaquin County Web page.

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Primary Agency:	San Joaquin County Public Works (PW)
Supporting Agencies:	San Joaquin County Community Development (CD) San Joaquin County General Services – Facilities (Facilities) San Joaquin County Risk Management (RM) San Joaquin County Environmental Health Department (EHD) San Joaquin County Office of Emergency Services (OES)

1 EXECUTIVE SUMMARY

Emergency Support Function (ESF) – 03 Construction and Engineering guides initial evaluation, rapid needs assessment, and preliminary disaster safety reports on the infrastructure in areas that are affected, damaged, or destroyed during an emergency event. This information supports decision-making on the need for and location of emergency access routes, provision of emergency infrastructure, restoration of critical services, and prioritization of cleanup and repair efforts.

The San Joaquin County (County) Emergency Operations Plan (EOP) identifies Public Works (PW) as the coordinating department for ESF-03. ESF-03 implements strategies for debris clearance to allow for inspection and reconnaissance of damaged areas, the passage of emergency vehicles, personnel and lifesaving equipment, and the establishment of emergency contracting; repairing municipal facilities, roads, and structures; and supporting power, fuel, and potable water supplies under ESF-14 Recovery.

2 INTRODUCTION

2.1 PURPOSE

ESF-03 supports and coordinates the Operational Area's (OA) activities related to the emergency response and recovery of County public infrastructure. The development of ESF-03 is an ongoing process that involves identifying critical resources and building consensus among stakeholders. Various plans maintained by the County may be utilized depending on the specific area and extent of damage involved.

2.2 SCOPE

This plan outlines how ESF-03 coordinates the allocation and deployment of discipline-specific resources (personnel, equipment, materials, services, and contractors) during all phases of operations. ESF-03 provides technical advice, engineering services, contracting for construction management, and inspection/repair of critical infrastructure to assist the Operational Area (OA) in achieving goals related to life-saving and life-sustaining actions, damage mitigation, and recovery operations.

3 GUIDELINES

ESF-03 was created as a support function of the EOP. This plan is in accordance with the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). County Public Works is the primary agency of this ESF-03, but other County agencies and stakeholders will coordinate and participate in ESF-03 to achieve specific goals.

4 PLANNING ASSUMPTIONS

The following planning assumptions have been utilized to develop this ESF. Should these assumptions prove invalid for a specific event or circumstance, it will be necessary to modify the operational concepts and assigned responsibilities defined herein:

The following planning assumptions for the ESF -03: Construction and Engineering Annex apply:

- The public anticipates the prompt restoration of fundamental resources—such as water, sewer, communication, electricity, natural gas, transportation networks, and access to homes and buildings—during an emergency.
- Local agencies will deploy their resources to respond to an emergency and will only request assistance when local resources are insufficient or are exhausted.
- A local proclamation may be necessary to enact emergency procedures to facilitate construction response by providing exceptions to routine and ordinary environmental, permitting, and public works procurement policies, including legal counsel.
- Normal methods of communicating health and safety concerns with the public may be hindered by infrastructure disruptions or failures.
- Communication tools (e.g., cell phones, radio, messengers) are essential elements of ESF-03 and should be included in planning.
- Emergency environmental waivers and legal clearances may be needed for emergency repairs, disposal of debris, and demolition activities.
- PW facilities or equipment may be damaged or inaccessible, and some employees may be unable to respond. The need for construction and engineering services may exceed County resources.
- Staffing needs should be considered for durational deployment, which may be brief or extended.
- Outside contractors may be required.
- Documentation needs should be planned in advance (logs, timecards, press release forms, photos, diagrams/blueprints).

5 CONCEPT OF OPERATIONS

When activated, ESF-03 activities will be conducted by Public Works (PW) and supporting departments. This plan does not pre-empt or nullify existing PW procedures or guidelines. The information contained in this annex is to provide guidance, including roles and responsibilities that are determined based on the conditions existing when an incident occurs. ESF-03 is assigned in EOC Operations under the Infrastructure Branch and may coordinate activities with other ESFs such as Transportation (ESF-01), Communications (ESF-02), and Utilities (ESF-12).

ESF-03 is responsible for assisting the Infrastructure Branch, both before and after a disaster occurs, within the Operational Area (OA). ESF-03 coordination encompasses the following:

- Provide initial and ongoing safety and damage assessments on public/private buildings, roads, utilities, water/wastewater systems, and other critical infrastructure.
- Provide infrastructure and public facility protection, emergency repair, and temporary stabilization measures, including sandbagging, water diversion, and other emergency protective measures.
- Coordinate infrastructure and public facility restoration and reconstruction, including engineering, design, and construction management services.
- Provide engineering services, construction management, and response support including the establishment and maintenance of temporary site support such as shelters, staging areas, and emergency operations facilities.
- Coordinate with construction and engineering industries, including Regional, State, Federal and private industry partners, to support response and recovery efforts.
- Coordinate debris management, including removal, staging, recycling, and disposal, as well as route recovery to ensure safe access for emergency responders and the public.
- Support the establishment of temporary utilities, such as portable water systems or emergency power generation, to maintain critical services.
- Provide technical assistance for the restoration of critical utility services, such as power, water, and telecommunications, in coordination with ESF-12.
- Facilitate traffic management and road clearance to restore critical transportation routes and support evacuation or emergency access.

Priorities for ESF-03 are life safety, where construction and engineering resources will address efforts for life-saving and evacuation first. Secondary priorities, such as mitigating area damage, initiating restoration activities and ensuring long-term infrastructure resilience, will then be addressed.

Immediate objectives for construction and engineering are as follows:

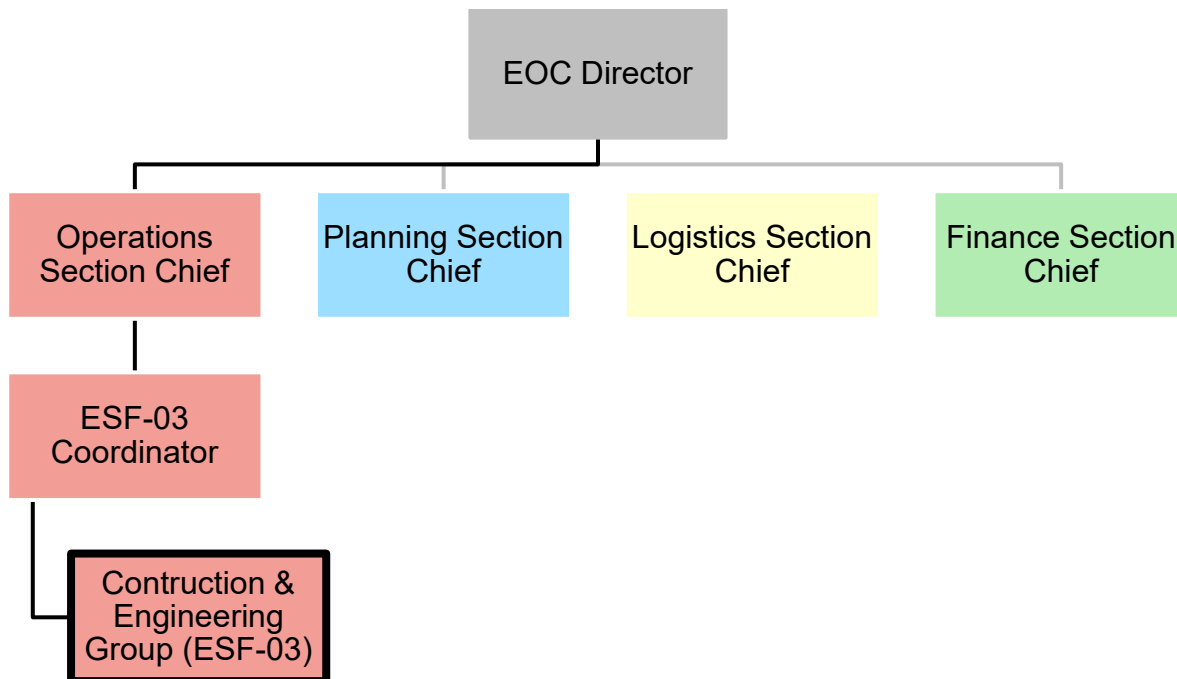
- Identify the extent of damage through comprehensive assessments of roads, utilities, buildings, and water/wastewater systems.
- Secure the perimeter around unsafe structures and infrastructures to protect public safety.
- Return people to their homes and businesses as soon as possible through rapid repair and restoration efforts.

- Develop and revise response and recovery plans to address evolving incident needs and incorporate lessons learned.
- Implement debris management strategies to clear, recycle, and dispose of debris efficiently while prioritizing environmentally responsible practices.
- Establish temporary site support, including shelters and staging areas, to facilitate emergency response and recovery operations.
- Coordinate rapid restoration of critical transportation routes through traffic management and road clearance efforts.
- Monitor and mitigate environmental hazards to prevent secondary damage from infrastructure-related incidents.

6 ROLES AND RESPONSIBILITIES

Upon activation of ESF-03, PW is the lead ESF coordinator, which facilitates requests and damage assessment information under Infrastructure Branch. Depending on the extent of the response, personnel may work directly from their facility office, a Department Operations Center (DOC), Field Incident Command Post (ICP), or EOC. For large or widespread incidents, the EOC will serve as the central location for interagency support and coordination, including activities associated with ESF-03.

As incident resource requirements increase, PW may call for mutual aid or assistance from supporting departments, the Regional Emergency Operations Center (REOC), State, Federal, and private engineering organizations.



6.1 RESPONSIBILITIES

The following lists agencies and their assigned responsibilities. Responsible agencies may coordinate with multiple agencies to achieve objectives.

6.1.1 County Department of Public Works:

- Assign staff to fill Incident Command System (ICS) positions, as required.
- Establish and operate DOC as needed.
- Collect the disaster safety assessment, roadway status, and debris management reports and information; assign tasks; monitor the situation.
- Initiate and coordinate disaster safety assessments for damaged roads, public infrastructure, government facilities, construction, and debris management.
- Mobilize damage response teams and crews to assist first responders in the management of immediate life safety issues.

- Provide public information regarding ESF-03 for public information through the Joint Information System (JIS)
- Procure resources (personnel, equipment, and supplies) locally, through mutual aid in accordance with ESF-07 Resources
- Conduct and coordinate damage assessment to roads, bridges, and other infrastructure.
- Coordinate for emergency contract support for lifesaving and life-sustaining construction services
- Coordinate debris removal, storage, sorting, recycling and recovery with contract provider(s)
- Coordinate the repair and restorations of damaged public facilities and public infrastructure.
- Assist in procurement and execution of contracts for construction management and inspection services.
- Work with ESF-13 Public Safety and Security to direct and mitigate traffic congestion around closed areas and evacuation routes.
- Conduct and coordinate damage assessment of traffic signals.
- Assess damage in transportation infrastructure. Establish route closure and detours as needed.
- Conduct and coordinate damage assessment of water, wastewater, and utility services.
- Coordinate the restoration and repair of water and utility services.
- Coordinate with County Counsel on emergency requirements for procurement, property rights, environmental compliance, and permitting.
- Coordinate with construction and engineering industries and agencies (Federal, State, regional, and local, including private and public)
- Provide emergency construction contract administration.
- Implement emergency protective measures to protect roads, public facilities, and property (sandbagging, water diversion dikes, ditches)
- Support establishing emergency temporary sites, such as shelters, bases, camps, and staging areas.
- Conduct and coordinate engineering, design, construction management, and contract management services to restore public facilities, including public buildings and public infrastructure.
- Coordinate debris removal, staging, holding, and storage areas.
- Provide/support Geographic Information System (GIS) mapping/layering of damaged infrastructure.
- Submit situation status reports and resource requests.
- Maintain communication with the Incident Commander(s) (IC) regarding the status of field operations.

- Receive requests for resources from the IC; fulfill requests internally or coordinate requests for mutual aid when necessary.
- Communicating information regarding construction and engineering concerns the appropriate IC.
- Identify and describe the actions that will be taken to repair/restore local water and wastewater systems including providing temporary water distribution and wastewater collections systems until normal operations resume.
- Collect, organize, and report damage information to other county agencies, regional, state and federal agencies within 12-36 hours of the emergency.

6.1.2 Community Development Department – Building Inspection:

- Conduct and coordinate damage assessments of buildings and facilities.
- Provide inspection, local building code expertise, zoning, and land use information during for temporary facilities and permanent restoration of facilities.
- Identify and describe the actions that will be taken to condemn, demolish, and dispose of structures that present a safety hazard to the public.

6.1.3 General Services Department:

- Coordinate emergency repair or relocation of county facilities.

6.1.4 Environmental Health:

- Assess and coordinate responses to resolve potential health issues related to the debris removal process (solid waste sites, water, wastewater, liquid waste, vector control, hazardous and medical wastes)

6.1.5 San Joaquin County Office of Emergency Services:

- Facilitate resource requests in support of ESF-03
- Information sharing and situational awareness

7 COMMUNICATION

Communication will be maintained by PW and all supporting agencies. PW will maintain a vendor and resource list and verify contacts on a regular basis. There will be communication between all jurisdictions in the OA and the EOC.

Cell phones and hard-line phones will be the primary form of communication. ICS forms will be used to document communication and collected in accordance with SEMS/NIMS. If phones are not available, the following methods of communication can be used, but not limited to:

- E-Mail
- Fax
- Amateur Radio – including data packets¹
- Runners with appropriate ICS forms.

¹ Data packets refer to digital information sent over radio frequencies.

8 INFORMATION COLLECTION, ANALYSIS, AND DISSEMINATION

Information is to be shared by all agencies involved in the incident to establish a common operating picture throughout the OA. Establishing a common operating picture and maintaining situational awareness is essential to effective incident management.

Information can be shared via the designated WebEOC Incident Activity Log, and/or Emergency Action Plans (EAP), so that all incident personnel maintain situational awareness. Information is to be used by intended recipients to take appropriate response actions.

9 ADMINISTRATION, FINANCE, LOGISTICS

Local jurisdictions within the OA assume responsibility for all local incidents. ICS forms will be used in accordance with SEMS and NIMS prior, during and after an incident to document events. All resources must track hours, mileage, and provide associated documentation to the Finance and Administration Section prior to demobilization.

An After-Action Review (AAR) will be completed after every incident at every jurisdiction. All county agencies will participate in an AAR to develop the best practices and lessons learned.

9.1 RESOURCE REQUESTS

Resource requests are submitted through the appropriate channels according to SEMS and the ICS structure established through the EOC. Resource requests will be addressed locally, regionally, then statewide, if necessary. Requests for all supplies, equipment, personnel, etc. should be routed through ESF-07, Logistics, utilizing the WebEOC Resource Request and Deployment Module (RRDM) as appropriate.

10 PLAN DEVELOPMENT AND MAINTENANCE

The development and maintenance of this ESF plan will be consistent with the guidelines established in the EOP.

11 AUTHORITIES AND REFERENCES

The authorities and references documented in the basic plan of the EOP are considered applicable to this ESF.