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# **Post-Disaster Safety Assessment Program**

**Guideline to the Activation and Utilization of Program Resources**

**March 2015**

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# Introduction

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## **Preface**

With California's history of earthquakes and other disasters, one of the most important post-disaster activities is to determine the safety and functionality of key facilities. These facilities include emergency operation centers, shelters, hospitals, sewage plants, water treatment systems, and airports. In addition, the evaluation of dams, bridges and other structures is critical because these may pose a threat to life and safety if damaged by an event. It is also critical to provide safety assessment of privately-owned structures. The safety evaluation of public facilities and private structures assists in the recovery of a community devastated by a disaster.

It is necessary to plan for increased assistance to building inspection by local government in order to rapidly assess facility safety following a disaster. Mutual aid and volunteer assistance through the Safety Assessment Program is part of this planning.

Since the Applied Technology Council (ATC) published its Procedures for Postearthquake Safety Evaluations of Buildings (ATC-20) in 1989, state and local governments depend on the individual experience of those who specialize in infrastructure and facility safety assessments. Accordingly, the Governor's Office of Emergency Services (Cal OES) welcomes members of professional organizations within the state who are interested in participating in the Post-Disaster Safety Assessment Program (SAP) of California.

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## **Purpose**

This publication provides the organization, function, and implementation of the SAP as a guide to local government and professional organizations.

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# Overview

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**Goal** The goal of SAP is to help local government perform accurate facility safety assessments as quickly as possible. This will allow people to use safe homes and businesses, and ensure that people are prohibited from entering unsafe structures after a disaster.

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**Definition of Safety Assessment** Safety assessment is the evaluation of facilities following a disaster to determine the condition of buildings and infrastructure for use and occupancy. These assessments are not intended to identify or quantify damage, but to categorize facilities as to their safety.

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**Participants** Certified building inspectors, licensed engineers and architects who are part of the SAP are divided into two resource pools:

- Volunteers
- Public Resources
  - a) Local government employees
  - b) State government employees.

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**Functions** Within SAP, there are five functional positions:

- ✓ SAP Evaluator
- ✓ Professional Organization Contact
- ✓ Disaster Contact
- ✓ SAP Coordinator
- ✓ Statewide SAP Coordinator.

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**Activation** All SAP participants must be activated by Cal OES through the State Operations Center (SOC). All activations are accomplished utilizing the Incident Command System (ICS) structure of the Standardized Emergency Management System (SEMS).

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**Additional Information** For further information, you can go to the SAP web page through the OES website at [www.calema.ca.gov](http://www.calema.ca.gov). Click on “Recovery” at the upper bar of the page, then click on the link for the Safety Assessment Program. You may also contact the Statewide SAP Coordinator at (916) 845-8273.

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# Historical Background

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Following the San Fernando Earthquake in 1971, the Structural Engineers Association of California (SEAOC) began working with the Governor's Office of Emergency Services (Cal OES) to develop a plan whereby government could utilize private engineering resources during an emergency. The first draft of the plan was completed in 1978, and was entitled the Safety Assessment Plan for Volunteer Engineers. Subsequently, the American Society of Civil Engineers (ASCE) joined SEAOC in the program, providing State OES with access to additional engineers for the safety assessment of buildings and infrastructure. Other professional organizations also joined the program, providing not only engineers, but also architects and building inspectors to conduct safety assessments after a disaster.

In 1987, the Applied Technology Council (ATC) began developing Procedures for Postearthquake Safety Evaluations of Buildings (ATC-20) and a Field Manual: Postearthquake Safety Evaluations of Buildings (ATC-20-1). This effort was funded by OES, the Office of Statewide Health Planning and Development (OSHPD), and the Federal Emergency Management Agency (FEMA).

These documents were made available in 1989, just one month before the Loma Prieta Earthquake. Therefore, the Loma Prieta Earthquake provided an opportunity to test these plans and guidelines in a large-magnitude event that impacted multiple jurisdictions. OES determined from this experience that the original Safety Assessment Plan for Volunteer Engineers required revisions.

In 1991, OES expanded the original plan to include local government employees as resources for safety assessments. In 1992, OES completed and published the Post-Disaster Safety Assessment Plan outlining how local and state government would access the program and what resources would be available. In 2002, OES expanded the program to make it multi-hazard. In 2003, OES expanded the program to include state government employees. In 2006, OES set up the SAP Steering Committee, with participants from the partner organizations and State agencies. In 2007, OES agreed to include architects and engineers in the program who had licenses from other states besides California, due to Article 5 of the Emergency Management Assistance Compact (EMAC). In 2009, OES merged with the California Office of Homeland Security to form the California Emergency Management Agency (Cal OES).

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# Program Organization

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## Volunteers

Volunteers are individuals from the private sector who are registered with the State of California as Disaster Service Workers-Volunteers (DSW-Volunteers). A DSW-Volunteer:

- agrees to be available to provide services without compensation for a period of five days;
  - is issued a volunteer identification card by Cal OES;
  - is provided limited liability protection and worker's compensation while deployed by Cal OES for safety assessment activities or recognized training; and
  - must be deputized as a Deputy Building Inspector by the requesting jurisdiction to post official jurisdiction placards.
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## Public Resources

All Public Resources are Disaster Service Workers (DSW) in accordance with the State Emergency Services Act and the State Emergency Plan. Public Resources are governmental employees who are divided into two categories:

- ✓ Local Government Employees (DSW-Local) are:
    - issued an identification card by Cal OES;
    - provided salary, limited liability protection and worker's compensation by their home jurisdiction while deployed by Cal OES for safety assessments or recognized training;
    - provided to the requesting jurisdiction for a period of five days or more; and
    - deputized as a Deputy Building Inspector by the requesting jurisdiction in order to post official jurisdiction placards.
  - ✓ State Government Employees (DSW-State) are:
    - issued an identification card by Cal OES;
    - provided salary, limited liability protection and worker's compensation by the State of California;
    - provided to the requesting jurisdiction for a period of five days or more; and
    - deputized as a Deputy Building Inspector by the requesting jurisdiction in order to post official jurisdiction placards.
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## Authority

The definition, benefits and authorized activities of a DSW are provided in Title 19 of the California Code of Regulations, Section 2570.

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# SAP Evaluator

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**Qualifications** In cooperation with professional organizations and local government, the following qualifications have been established for participation in the program:

- Professionally registered engineers
- Professionally licensed architects
- Certified building inspectors\*

\*Certification for building inspectors must be provided by a recognized organization in the approved categories. Cal OES has a list of approved categories of building inspectors on the SAP website. DSW-Locals must be currently employed by a local agency with plan check and inspection responsibilities.

Persons without certification, license or registration may participate in the program; however, they will only be used as assistants to SAP Evaluators until such time as they meet the criteria above. These assistants will be expected to complete the same training as the SAP Evaluators.

Additionally, SAP Evaluators must have:

- General knowledge of construction - the ability to inspect any framing system and rapidly identify how the system works and the corresponding load paths. Those specializing in facilities and infrastructure must be able to rapidly identify the function and mechanisms of a particular system.
- Professional experience - practical experience working with various framing systems. This experience may come from designing and detailing systems, reviewing designs and details prepared by others, or inspecting the actual construction of systems.
- Good judgment - the ability to inspect a system and, based on knowledge and experience, make a judgment of the ability of that system to withstand another event of similar magnitude.
- Broad building review capability – must not be limited by certification to look only at homes, for instance, but not commercial structures; or wood structures, but not masonry ones.

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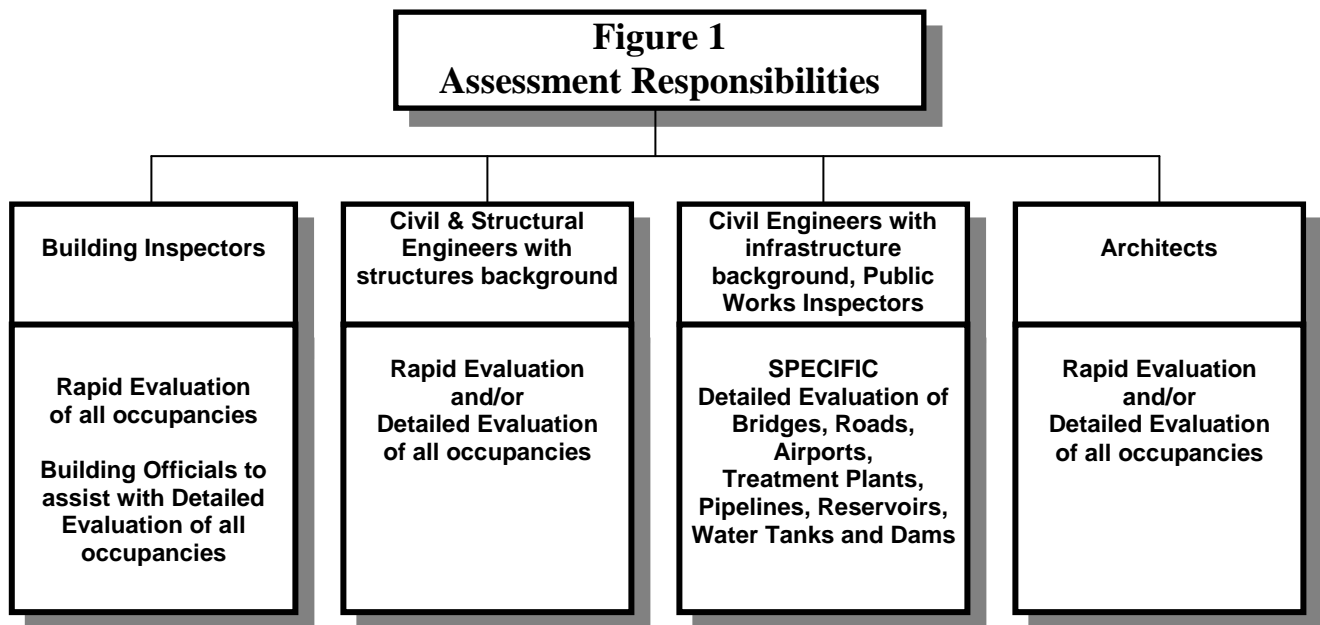
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## SAP Evaluator, Continued

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**Responsibilities** SAP Evaluators will assess buildings, facilities and systems to determine the safety for continued use and safe occupancy, or restricted use. SAP Evaluators are professionals with varied experience and expertise. To ensure that the deployment of SAP Evaluators is appropriate to the situation, they have been grouped and assigned specific assessment responsibilities based on their expertise. Figure 1 below shows these areas of responsibility and is provided for guidance only. Figure 1 is not intended to limit any individual or group to a specific type of evaluation or assessment.

Additional information regarding responsibilities will be provided to participants at the SAP Evaluator Training.



SAP Evaluators will NOT perform the following services:

- Provide cost estimates for buildings they have evaluated.
- Perform evaluations based on code compliance.
- Provide escort or property retrieval for owners or occupants of buildings.

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## SAP Evaluator, Continued

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### Description of Evaluations

Assessments are generally performed by teams of two or more SAP Evaluators, dependent on the type and difficulty of the assessment. There are two types of assessments performed:

- ✓ Rapid Evaluation: (typically a team of two building inspectors or a building inspector and an engineer or architect)
  - initial assessment
  - minimizes labor required
  - may include construction inspection, plan check, evaluation of dangerous conditions, etc.
  - post apparently safe, restricted use, or obviously unsafe facilities
  
- ✓ Detailed Evaluation: (typically a team includes a building official, a structural and/or civil engineer, an architect, and other specialists as needed to address the specific situation)
  - completed after the Rapid Evaluations, when requested
  - comprehensive inspection of the entire building particularly its structural system and surrounding area
  - recommends a 'posting' classification that reflects the safety of the structural system.

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### Training

The SAP Evaluator Training provides detailed instruction on required forms, placards, and the evaluation procedures for all buildings (including residences and mobile homes). The instruction is reinforced through activities that give SAP Evaluators the opportunity to apply what they have learned.

This training is available through the professional organizations with oversight from the Statewide SAP Coordinator.

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# Professional Organization Contacts

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## Introduction

Each participating professional organization must appoint the following contacts:

- ✓ Organization Contact
  - ✓ Disaster Contacts
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## Organization Contact

Qualifications: Cal OES recommends that the Organization Contact has the following qualifications:

- ✓ Knowledge of SAP organization, function and implementation
- ✓ Detail Oriented
- ✓ Organized
- ✓ Proficient communication skills (verbal and written).

Responsibilities: The role of the Organization Contact is to coordinate internal organization (e.g., sections, chapters, divisions, subdivisions). The Organization Contact responsibilities include the coordination of:

- internal organizational deployment procedures
- organizational trainings and registration programs
- trained SAP Evaluators and Disaster Contact lists
- pre-disaster reporting to Cal OES of trained resources available for deployment
- correspondence with Cal OES.

Training: Although no specific training is required, Cal OES recommends that Organization Contacts attend the SAP Coordinator Training.

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## Professional Organization Contacts, Continued

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### Disaster Contacts

Each professional organization must appoint primary and secondary Disaster Contacts. The following qualifications, responsibilities and training apply to both the primary and secondary Disaster Contacts.

Qualifications: Cal OES recommends that the Disaster Contacts have the following qualifications:

- ✓ Proficiency on SAP
- ✓ General knowledge of ICS and SEMS
- ✓ General understanding of engineering principles
- ✓ Deployment authority.

Responsibilities: The role of the Disaster Contacts is to coordinate the deployment of organizational resources when requested by the Statewide SAP Coordinator. The Disaster Contacts' responsibilities include:

- 24-hour availability of primary and secondary Disaster Contacts for potential activation
- providing office, home, cell, and pager telephone numbers for primary and secondary Disaster Contacts
- activating internal organizational deployment in coordination with Statewide SAP Coordinator
- coordinating post-disaster reporting to State OES on resources deployed.

Training: Disaster Contacts should attend the SAP Evaluator Training.

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# SAP Coordinator

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**Qualifications** Each local government should appoint a SAP Coordinator who should attend SAP Coordinator Training.

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**Responsibilities** Each local government SAP Coordinator is responsible for the following:

- facilitate the deployment of the responding SAP Evaluators
- provide responding SAP Evaluators with a situation briefing, a short refresher training, and specific assignments
- coordinate the deputizing of responding SAP Evaluators
- develop and implement an operational plan for the evaluation of damaged buildings.
- Manage data entry, compilation, and dissemination of SAP evaluation data for the jurisdiction.
- Manage requests for follow-up reassessments and Detailed Evaluations, and assign SAP Evaluators with appropriate qualifications.
- Coordinate accommodations (food and lodging) for SAP Evaluators or request assistance for coordination.
- Coordinate reimbursement of eligible expenses (travel, food, and lodging) to SAP Evaluators.

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**Training** The SAP Coordinator Training is provided by Cal OES or its authorized agent. The training presents an overview of recognized evaluation procedures. The training also provides detailed information regarding the development and implementation of an operational plan for the evaluation of damaged buildings.

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## Statewide SAP Coordinator

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**Qualifications** The Statewide SAP Coordinator must be an employee of Cal OES.

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**Responsibilities** The Statewide SAP Coordinator is responsible for the following activities:

- statewide coordination and implementation of SAP
  - oversight of all SAP training classes
  - issue registration and identification cards, as required
  - annual verification of Professional Organization Contact and Disaster Contact lists
  - certify new SAP Evaluator trainers through train-the-trainer program
  - monitor SAP Training for quality.
  - Develop regional estimates of safety assessment needs and identify priorities using HAZUS and ShakeMap.
  - Administer loyalty oath signings of new volunteer SAP evaluators as DSW-Volunteers.
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**Training** The Statewide SAP Coordinator must attend the SAP Evaluator and SAP Coordinator Training classes.

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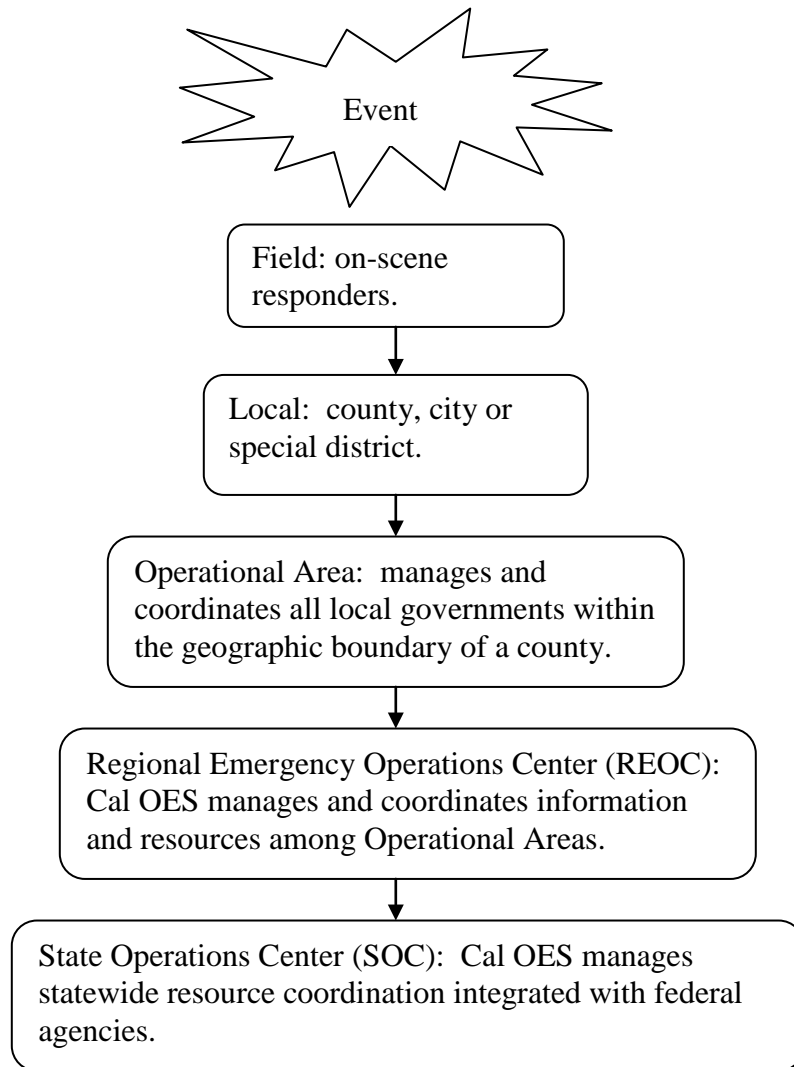
# Accessing the Program

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## SEMS

All volunteers and public resources must be activated by Cal OES through the SOC and utilizing the ICS structure of SEMS.

Field responders coordinate with the local agency to secure additional resources needed on-scene. If the request exceeds local capabilities, the request is forwarded to the Operational Area, etc. The flow chart below demonstrates the five progressive, organizational levels of SEMS.



## Activating the Program

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- Step 1** Local government determines that additional resources are required to complete the evaluation of damaged structures, critical facilities and infrastructure.
- a) The SAP Coordinator determines how many SAP Evaluators are needed and any specific qualifications required to meet the needs of the local jurisdiction.
  - b) The SAP Coordinator provides the request to the appropriate Operational Area through the jurisdiction's EOC.
  - c) The Operational Area may coordinate SAP deployment from resources within its borders. If the response needs exceeds the capacity of the Operational Area, request for more assistance is made as follows.
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- Step 2** The Operational Area forwards the request to the Cal OES REOC.
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- Step 3** The REOC forwards the request to the SOC.
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- Step 4** The SOC will contact the Statewide SAP Coordinator to implement the SAP. The Statewide SAP Coordinator will facilitate the deployment of the necessary SAP Evaluators to fill the request through the appropriate professional organization Disaster Contacts.
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- Step 5** The Disaster Contacts will:
- a) initiate the organization's deployment procedures; and
  - b) upon completion of the deployment, the Disaster Contacts will provide the Statewide SAP Coordinator a report of the details of the deployment (e.g., number and home jurisdiction of SAP Evaluators deployed, and any other specifics of the deployment).
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**Step 6**

Upon arrival in the staging area, responding SAP Evaluators will:

- ✓ register with the SAP Coordinator
  - ✓ attend a situation briefing to receive:
    - instructions regarding media inquiries and jurisdictional policies
    - a brief review of necessary forms and placards
    - telephone numbers and locations of emergency services, evaluation forms, placards, and other supplies
  - ✓ attend a short refresher training
  - ✓ become deputized as a Deputy Building Inspector
  - ✓ receive assignments of inspections to be conducted, including location maps, building information, etc.
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# Legal Issues

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## Introduction

The following methods describe the Worker's Compensation and limited liability protection that may be available to volunteer SAP Evaluators (DSW-Volunteers). This limited liability protection however, is only available to the SAP Evaluator while performing the scope of work assigned by the requesting jurisdiction.

Local governments accepting the assistance of State, local mutual aid, or volunteer personnel do not become financially responsible for their Worker's Compensation costs.

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## Method 1

### The California Emergency Services Act.

The following are selected extracts from an Opinion (CV 77/91 IL) rendered by the California State Office of the Attorney General (AG's Office) on December 7, 1977, concerning the use of "Safety Assessment Volunteers." At the time the opinion was rendered, only engineers were involved in the program. These extracts include four questions asked by OES concerning damage assessment following a major earthquake with answers provided by the AG's Office.

**Question:** May structural engineers who are registered as Disaster Service Workers be utilized to assess the extent of damages incurred by buildings in an area struck by earthquakes?

**Answer:** Structural engineers who are registered as Disaster Service Workers may be utilized to perform post-earthquake damage assessments following the proclamation of a State of Emergency or a Local Emergency.

**Question:** Would the appointment of such engineers as Deputy Building Inspectors, without pay, affect their eligibility for state workers' compensation benefits?

**Answer:** The appointment, without pay, of structural engineers who are registered Disaster Service Workers as Deputy Building Inspectors by government entities would not affect the engineers' entitlement to State Disaster Workers' Compensation benefits, which would remain the exclusive remedy for physical injuries suffered by them while performing related activities.

**Question:** Would such engineers be required to be "fully conversant" with local building safety codes?

**Answer:** Volunteer Engineer/Disaster Workers would not be required to be fully conversant with local building and safety codes.

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## Legal Issues, Continued

### Method 1 (continued)

#### California Emergency Services Act

**Question:** If a local engineer, building inspector or volunteer engineer certifies a structure is safe for occupancy and, when occupied, it collapses and individuals are injured, would the local entity, the state, or the certifying engineer be liable?

**Answer:** No liability would attach to a public entity, its employees or a Disaster Service Worker under the circumstances presented.

As seen from the above, the private sector resources are provided Worker's compensation through the *California Emergency Services Act*. Section 8580 of the Act states:

*"The Emergency Council shall establish by rule and regulation various classes of disaster service workers and the scope of the duties of each class. The Emergency Council shall also adopt rules and regulations prescribing the manner in which disaster service workers of each class are to be registered. All of the rules and regulations shall be designed to facilitate the payment of workers' compensation."*

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### Method 2

Liability protection is provided to professionally registered engineers and licensed architects by the State of California Business and Professions Code, Chapter 30, Section 5536.27 for architects and Section 6706 for engineers. The language in each section is identical, with only the terms "architect" and "engineer" being interchanged. For the purpose of this document, the relative portion of these sections is repeated with the term "architect/engineer" inserted in place of "architect" or "engineer."

An architect/engineer who voluntarily, without compensation or expectation of compensation, provides structural inspection services at the scene of a declared national, state, or local emergency caused by a major earthquake at the request of a public official, public safety officer, or city or county building inspector acting in an official capacity shall not be liable in negligence for any personal injury, wrongful death, or property damage caused by the architect's/engineer's good faith but negligent inspection of a structure used for human habitation or owned by a public entity for structural integrity or nonstructural elements affecting life and safety.

The immunity provided by this section shall apply only for an inspection that occurs within 30 days of the earthquake.

Nothing in this section shall provide immunity for gross negligence or willful misconduct.

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## Legal Issues, Continued

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### Method 3

Once the SAP Evaluators are assigned to a particular jurisdiction, that jurisdiction may choose to deputize them as Deputy Building Inspectors. This deputizing process makes the individual a representative of the jurisdiction and provides them with the same liability protection as any employee of that jurisdiction.

Local government employees represent their home jurisdictions during a response. As representatives of their home jurisdiction, the home jurisdiction provides their liability protection and Workers' Compensation coverage.

Volunteers receive Worker's Compensation coverage through the State of California.

State of California employees who are working as Disaster Service Workers will continue to receive Worker's Compensation coverage through the State.

# Reimbursements

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**Introduction** Below are reimbursement policies that apply whenever SAP is activated.

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**Volunteers and Local Government** The requesting jurisdiction is responsible to reimburse the responding volunteer or local government SAP Evaluators. Reimbursement costs are limited to housing, meals, travel, but may also include other necessary expenses directly related to safety assessment activities. In some cases, local governments coordinate accommodations for responding individuals. Responding SAP Evaluators shall save all expense receipts. The requesting jurisdiction's SAP Coordinator will provide information about reimbursement procedures.

If the Governor proclaims a state of emergency, labor costs may be eligible for reimbursement under the state California Disaster Assistance Act (CDAA). The requesting jurisdiction is responsible however for the 25 percent local share that is required under CDAA.

Similarly, labor cost reimbursement may be eligible if the President declares a major disaster or an emergency. Under the federal Public Assistance Program, the Federal Emergency Management Agency (FEMA) may reimburse 75 percent of the eligible costs, with the remaining 25 percent being shared between the state and requesting local jurisdiction.

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**State Government** When a state government employee is deployed as a SAP Evaluator, all expenses including labor costs will be processed in accordance with the procedures and guidelines from the State of California Department of Personnel Administration (DPA).

If the President declares a major disaster or an emergency, state government may be eligible for reimbursement under the federal Public Assistance Program. FEMA may fund 75 percent of the eligible costs, with the remaining 25 percent being absorbed by the state.

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