

Welcome!



Earthquake
Country
Alliance

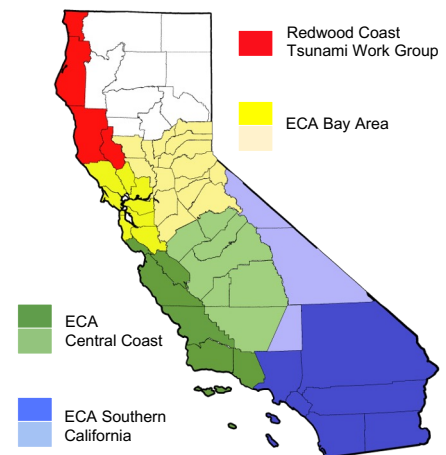
ECA Bay Area
Summer 2025 Workshop

City of Hayward Council Chambers

1

Earthquake Country Alliance

- 4000+ *Public-Private-Grassroots* leaders
- Statewide *committees* develop resources and deliver programs
- *Regional Alliances* organize meetings and outreach activities
- California's Office of Emergency Services provides FEMA NEHRP funding for ECA earthquake mitigation activities
- USC's Statewide California Earthquake Center (SCEC.org) administers ECA



Join: EarthquakeCountry.org/join



2

ECA Bay Area Coordinating Committee Co-Chairs

Jeff Airth

San Francisco International Airport

Ray Bonilla

Elevance Health & City of Hayward City Council

Dena Gunning

Central County Fire Department (San Mateo)

3

ECA Bay Area Coordinating Committee

- Coordinating Committee Chairs: **Jeff Airth**, SFO International Airport
Ray Bonilla, Elevance Health & City of Hayward City Council
Dena Gunning, Central County Fire Dept. (San Mateo County)
- Communications Coordinator: **Open Position**
- Events Bureau Coordinators: **Chief David Cosgrave**, San Mateo County Dept. of Emgcy. Svs.
Kacey Treadway, Santa Clara County Ofc. of Emgcy. Mgmt.
- Media Bureau Coordinator: **Open Position**
- Membership Coordinator: **Open Position**
- Participation Bureau Coordinator: **Open Position**
- Regional Workshops Coordinator: **Jeff Airth**, SFO International Airport
- SCEC Liaison for ECA Bay Area: **Mark Benthien (ECA/SCEC)**
bayarea@earthquakecountry.org

EarthquakeCountry.org/bayarea

4

Today's Agenda

Welcome to the Heart of the Bay Area: A Warm Welcome to the City of Hayward
Mayor Mark Salinas (City of Hayward)

Emergency Management in Action: Hayward's Community-Driven Resilience Approach
Captain Frank Saiz (Emergency Services Officer, City of Hayward)

Built for Resilience: A Closer Look at Hayward City Hall's Advanced Seismic Design
Chief Eric Vollmer (City of Hayward Fire Department)

Inside Scoop: Updates from State Partners
CEA, CGS, CalOES, CalOSBA

Break

From Fault Line to Finish Line: How Our Earthquake Exercise Took Shape
Kacey Treadway (County of Santa Clara Office of Emergency Management)

ECA 2025 Activities & Opportunities, ShakeOut Planning, etc.
Mark Benthien (Statewide California Earthquake Center & ECA Executive Director)

Announcements from Participants

Optional Tour: City Hall's Earthquake-Ready Innovations

5

Brief Self Introductions

Name

Organization or Community

Title/Role

6

Emergency Management in Action: Hayward's Community-Driven Resilience Approach

Captain Frank Saiz
(Emergency Services Officer, City of Hayward)

Built for Resilience: A Closer Look at Hayward City Hall's Advanced Seismic Design

Chief Eric Vollmer
(City of Hayward Fire Department)

7

Emergency Management in Hayward




8

H HAYWARD

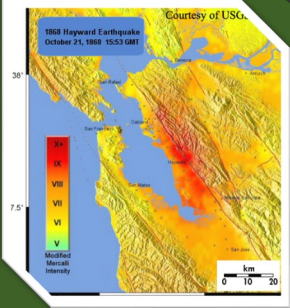
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1868 Hayward Earthquake

- An estimated 6.3-6.7 magnitude earthquake along the Hayward Fault Zone devastated the city.
- Nearly every building was destroyed or significantly damaged during the Earthquake's duration.



The Hayward Pierce House damaged in Earthquake



1868 Hayward Earthquake
October 21, 1868 15:53 GMT
Courtesy of USGS
Modified Mercalli Intensity
IX
VIII
VII
VI
V
0 10 20 km

9

H HAYWARD

A

Wildfires

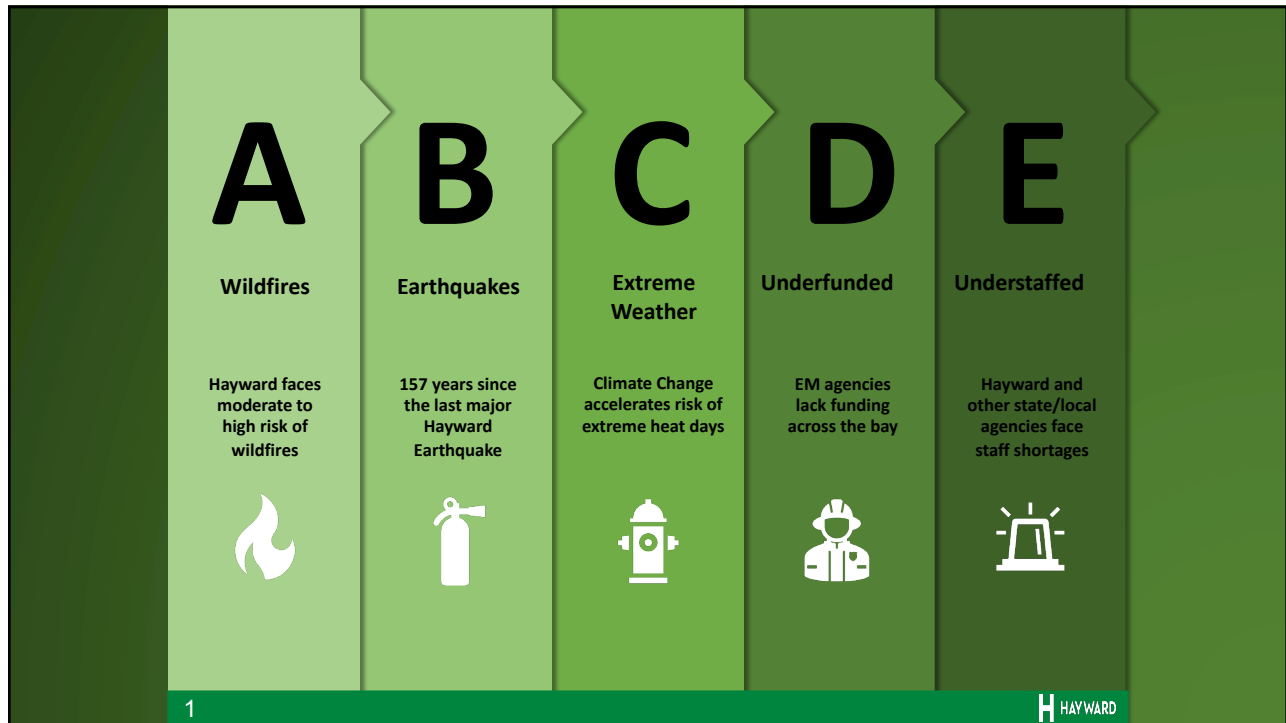
Hayward faces moderate to high risk of wildfires



Hayward's Emergency Management Challenges

1

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11



12

Major Accomplishments

- Thanks to Measure C and our partnership with Chabot College, **Fire Station 6** was built as a regional training center for emergency responders and new EOC for staff.
- Glad Tidings Church Resilience Hub established for community resource distribution and care.



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H HAYWARD

13

What work is there to be done?



Train up city staff for
Emergency Operations
Center (EOC)



Expand enrollment in AC
Alerts and zone haven for
emergency notifications.



Increase community
involvement through CERT
Program and establish 8 more
resilience hubs in Hayward to
match our fire districts.



Reduce wildfire risks across Hayward through defensible space
investments, fuel-reduction projects, and preparing for evacuation.

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H HAYWARD

14



Hayward City Hall Built In 1997

1

H HAYWARD

15

Earthquake Base Isolation Systems

- Hayward City Hall possesses 53 friction pendulum steel slider insulation bearings and 15 viscous dampers for earthquake resistance.
- City hall can move up to 22 inches in any direction during an earthquake.



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H HAYWARD

16

Base Isolator Explanation



17

H HAYWARD

17

Base Isolation Sliding Bearings Demonstration



18

H HAYWARD

18

Final Thoughts

19



19

Q&A

Join ECA (free) be notified of future events, etc.
EarthquakeCountry.org/join

Questions?
info@earthquakecountry.org

Please complete our
brief workshop survey:

SurveyMonkey.com/r/8YV7KCX



20

Inside Scoop: Updates from State Partners

CEA, CGS, CalOES, CalOSBA

21

Mitigation: A Culture of Earthquake Resilience

Janiele Maffei, Chief Mitigation Officer
California Earthquake Authority

22

Mitigation: A Culture of Earthquake Resilience



Park Boulevard Historic District, San Diego, CA

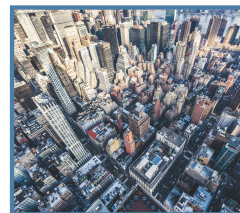
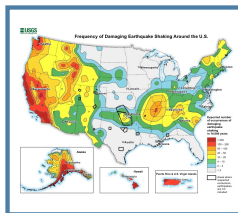
JANIELE MAFFEI, S.E.
CHIEF MITIGATION OFFICER

August 27, 2025



Things to Know About Earthquake Risk

RISK = HAZARD + VULNERABILITY + EXPOSURE



California Earthquake Authority

CEA is a not-for-profit residential earthquake insurer.

ECA, August 27, 2025

Publicly Managed • Privately Financed

A not-for-profit provider of residential earthquake insurance

Governing Board:

Governor
Insurance Commissioner
State Treasurer



Governor
Gavin Newsom



Insurance Commissioner
Ricardo Lara



State Treasurer
Fiona Ma

Non Voting:

Assembly Speaker
Senate Rules Chair



Assembly Speaker
Robert Rivas



Senate Rules Chair
Mike McGuire

Privately Financed:

1,132,605 Policyholders

Mission:

Educate
Mitigate
Insure

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CEA Mitigation

Standards • Research • Incentives

ECA, August 27, 2025

FEMA P-1100 Earthquake Vulnerabilities

Co-sponsored by FEMA and the California Earthquake Authority

CRMP Grant Programs Available



Crawlspace Walls



Living-space-over garage



Hillside House



Chimney

ECA, August 27, 2025

Crawlspace Wall Vulnerability



M6.6 1971 Sylmar EQ



M6.9 1989 Loma Prieta EQ



M6.7 1994 Northridge EQ



M6.6 2003 San Simeon EQ

ECA, August 27, 2025

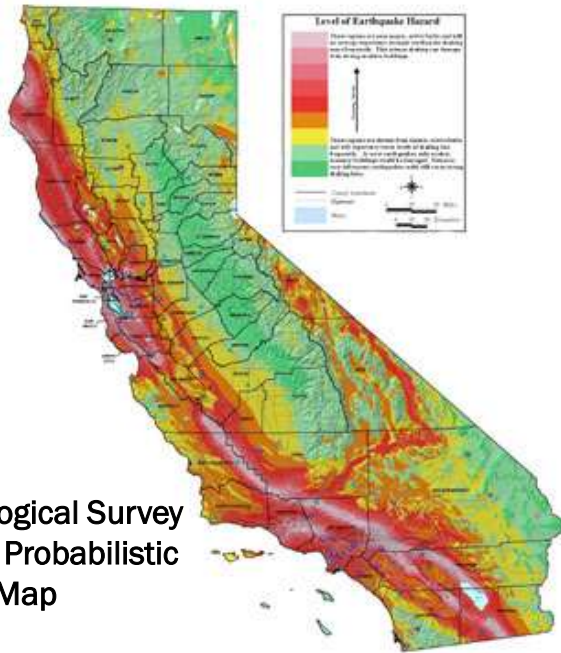
CRMP Single-Family Crawlspace Retrofit Grant Programs



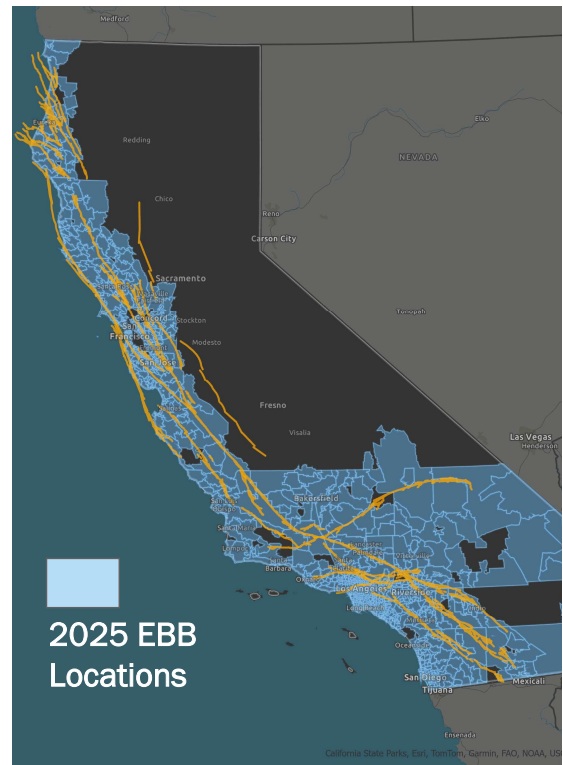
Funded by \$86m FEMA HMGP grants
Jointly managed by CEA and Cal OES
For qualified owner-occupied AND RENTAL houses in select ZIP Codes
Registration is OPEN through October 1, 2025

ECA, August 27, 2025

CA Geological Survey
Seismic Probabilistic
Hazard Map



ECA, August 27, 2025



Earthquake Brace + Bolt Retrofit - EBB

California Residential Mitigation Program Retrofit Grants - Earthquake Brace + Bolt



Earthquake Brace + Bolt Program:

- Retrofits crawlspace with plywood bracing and new bolting
- Provides up to \$3,000 grant
- **Rental units ARE allowed**
- In select ZIP Codes with high seismic hazard
- Has collected **important** data:
 - Retrofit costs – \$5200 statewide median
 - More expensive in Northern CA
 - Number of retrofitted houses in a City

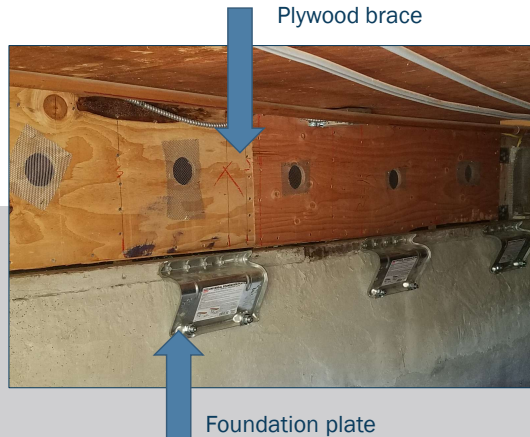
ECA, August 27, 2025

Earthquake Brace + Bolt

Short Cripple Wall Requires Framing Clips, Foundation Plates, and Plywood



Crawlspace **Before** Retrofit



Crawlspace **After** Retrofit

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EBB Supplemental Grant for Income-Eligible Homeowners

Since 2021, Earthquake Brace + Bolt (EBB) has offered additional funding above the \$3,000 EBB grant to help income-eligible homeowners complete a brace + bolt retrofit.

ECA, August 27, 2025

EBB Supplemental Grants

Introduced in 2022, SG provides different additional grant amounts depending on the retrofit and location:

Supplemental Grant	
NorCal Bolt Only	\$ 2,800*
SoCal Bolt Only	\$ 1,125
NorCal Brace & Bolt	\$ 7,000*
SoCal Brace & Bolt	\$ 2,650*

* Indicates additional requirements for houses in FEMA designated flood area

ECA, August 27, 2025

Developing Mitigation Incentive Programs

The following retrofit incentive grant programs are under development:

- Earthquake Soft-Story Pilot Program (ESS)
- Soft-Story Retrofit of Multi-Family (5-10 unit) Structures

ECA, August 27, 2025

CRMP Single-Family Retrofit Grant Programs

EBB, CEA BB, and ESS



Funded by \$5m FEMA HMGP grants
Registration closed

ECA, August 27, 2025

Earthquake Soft-Story (ESS)

Living-Space-Over-Garage (Soft-Story) Found in Pre-2000 Houses



1971 San Fernando EQ



1989 Loma Prieta EQ



1994 Northridge EQ



2014 Napa EQ

ECA, August 27, 2025

Earthquake Soft-Story (ESS)

ESS retrofit adds structural elements that would be included in a modern house built to current code



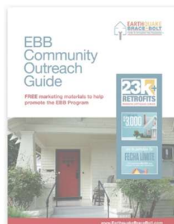
Plywood or OSB
on first-floor walls

New steel shear walls either
side of garage door opening

ECA, August 13, 2025

EBB and ESS Information for Elected Officials and Community Leaders

CRMPtools.com



EBB Community Outreach
Guide



EBB Program Overview
Available in English, Spanish and
Chinese



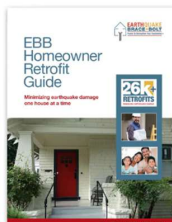
EBB 2024 ZIP Codes
Available for Northern California
and Southern California



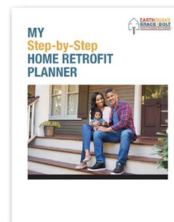
2024 EBB Program Videos
Available in English, and Spanish



EBB PowerPoint
Presentation



EBB Homeowner Guide



EBB Step-by-Step Home
Retrofit Planner



CRMP Quick Reference

ECA, August 27, 2025

CRMP Multi-Unit Retrofit Grant Program

EMR



Phase One funded by \$7m FEMA BRIC grants
Phase Two BRIC grants cancelled
Application in for FEMA HMGP funding

ECA, August 27, 2025

Multi-Family Soft-Story Retrofit Program



Photo credit: L.A. Times

Northridge Meadows Apartments – Northridge M6.7 Earthquake 1994

ECA, August 13, 2025

Multi-Family Soft-Story Retrofit Program



Photo credit: Janiele Marfei

Steel frame around garage door opening

ECA, August 27, 2025

Retrofitting Works

Complex engineering and testing has gone into the retrofitting standards that CRMP requires. Examples of the benefits of retrofitting were found after recent damaging CA earthquakes.

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2014 M 6.0 Napa Earthquake



Unretrofitted – Red Tagged

Some retrofitting done – Green Tagged

ECA, August 27, 2025

2022 M 6.4 and 2023 M 5.4 Ferndale Earthquakes



Unretrofitted – Red Tagged

Some retrofitting done – Green Tagged

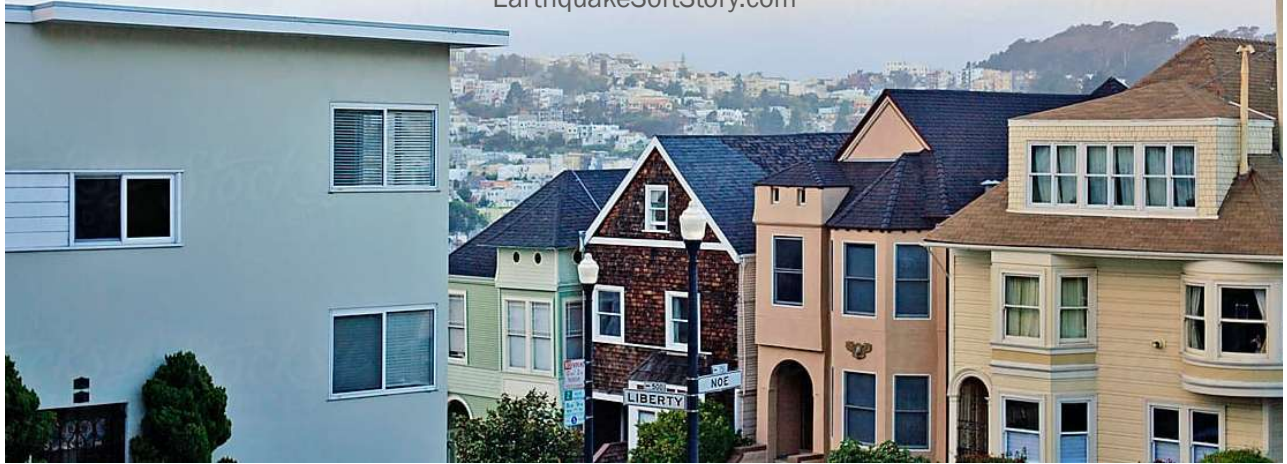
ECA, August 27, 2025

Thank You.

CRMP.org

Earthquakebracebolt.com

EarthquakeSoftStory.com





California
**Department of
Conservation**
California Geological Survey

Updates from the California Geological Survey: Earthquake Shaking Potential and Seismic Hazard Maps

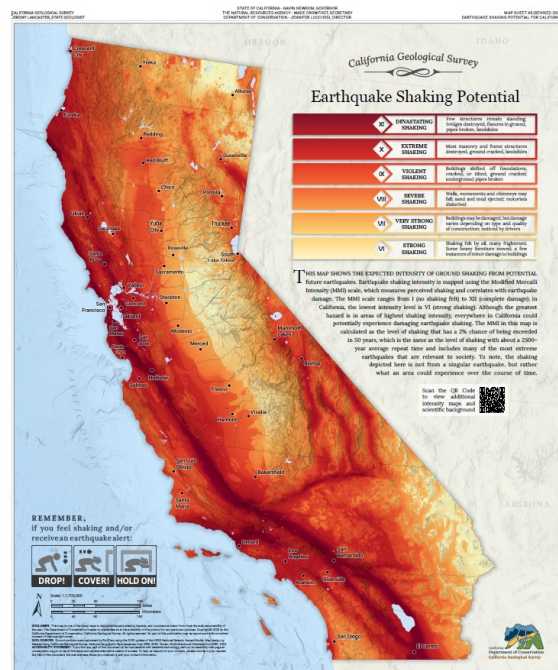
Tim Dawson
with contributions from **Dr. Wendy Bohon**
Seismic Hazards Program | California Geological Survey
timothy.dawson@conservation.ca.gov

23

Background

The California Geological Survey published the “Earthquake Shaking Potential for California” map in 1999 and has revised the map following each update of the National Seismic Hazard Maps (NSHM).

1999, 2008, 2016, 2025

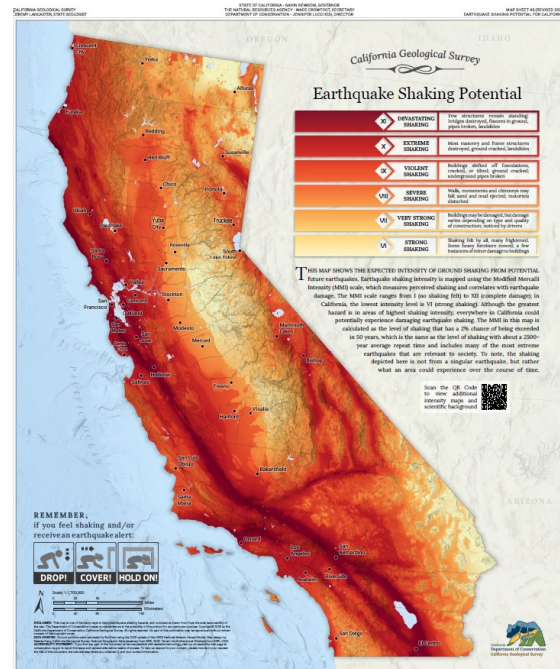


24

Communication Goals

- Damaging earthquake shaking is possible anywhere in California.
- The highest shaking hazard areas are near major active faults.
- Factors like local geologic conditions influence shaking intensity.

California Department of Conservation | conservation.ca.gov

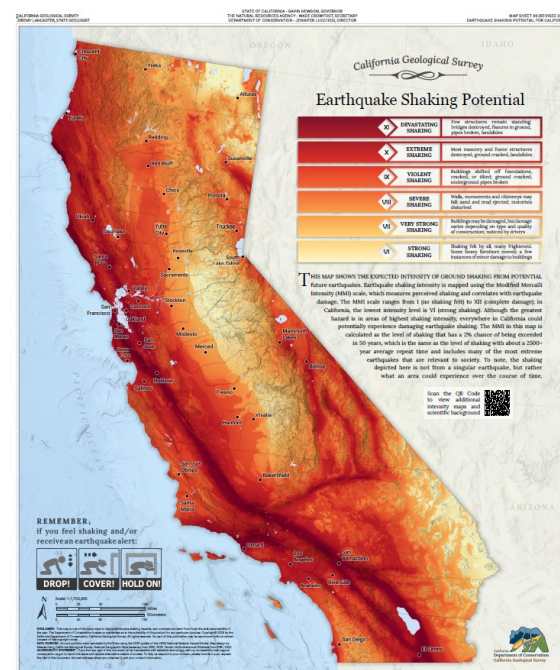


25

Intended Purpose

- Show how potential earthquake shaking is distributed across the state.
- Visualize the information used in building codes updates and earthquake hazard assessments.
- The underlying data is what should be used for anything beyond a general understanding of the distribution of shaking hazard.

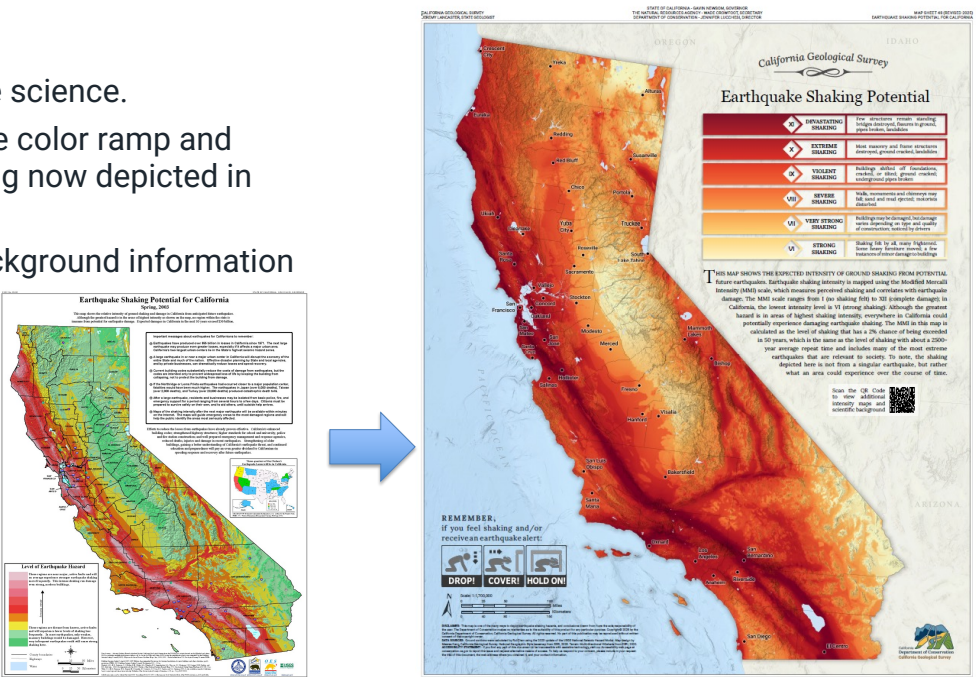
California Department of Conservation | conservation.ca.gov



26

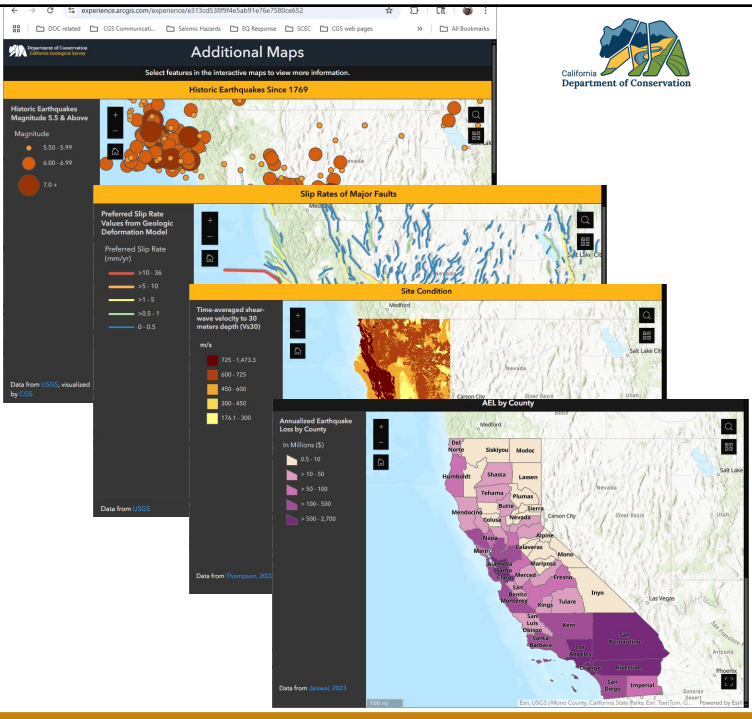
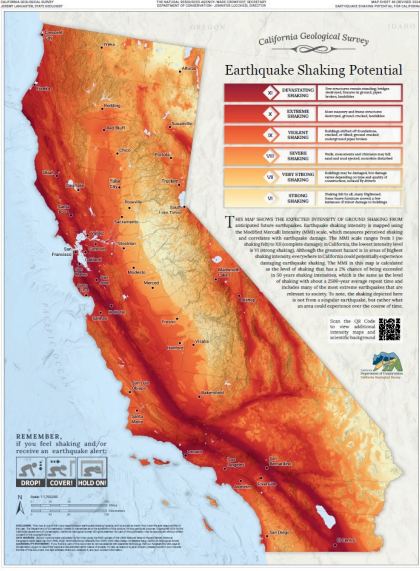
Changes

- Updates to the science.
- Changes to the color ramp and legend. Shaking now depicted in MMI scale
- Moved the background information to a website.



27

Map Sheet 48 (2025 Edition)



28

The Website

- Key messages for Californians about earthquakes (all audiences)
- The basic science behind the map (all audiences)
- Sources of data and information (for scientists/researchers)



California Department of Conservation | conservation.ca.gov

Home | **COS** | Earthquake Shaking Potential for California

COS Home
About the COS
Burned Watershed Geohazards
Geologic Carbon Sequestration
Earthquakes
Forest Biomass to Carbon-Negative Biofuels Program
Forest & Watershed Geology
Geologic Mapping
Landslides
Minerals
Seismic Hazards and Faults
About the Seismic Hazards Program
Alquist-Priolo Earthquake Fault Zones
Seismic Hazard Zones
Earthquake Shaking Potential for California
Essential Facility Review
EOZ app: Earthquake Zones app

Earthquake Shaking Potential for California

ON THIS PAGE

Overview

This web page summarizes important messages about earthquakes for Californians, discusses scientific background, and provides links to earthquake shaking hazard maps and data. These maps, along with supporting data such as historical earthquakes, fault slip rates, and site conditions, offer a comprehensive view of seismic hazards in California.

Map Sheet 48

The California Geological Survey (CGS) Map Sheet 48 (MS 48) depicts expected ground shaking intensity from future earthquakes across the state. The shaking intensity is represented using the Modified Mercalli Intensity (MMI) scale, which describes the perceived earthquake shaking and correlates strongly with earthquake-induced damage. MS 48 maps the level of shaking with a 2% probability of being exceeded in 50 years, equivalent to a 2,475-year average recurrence interval.

While the highest hazard areas are near major active faults, damaging earthquake shaking is possible anywhere in California. Factors such as proximity to faults and local geologic conditions influence shaking intensity. For example, sedimentary basins generally experience amplified shaking.

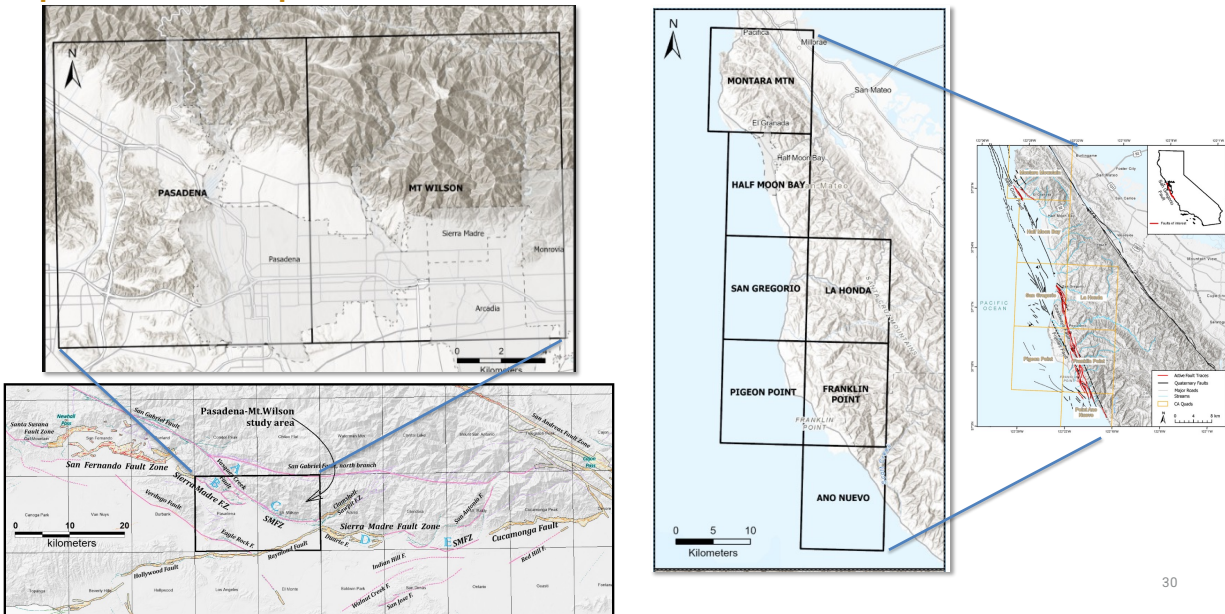
MS 48 Technical Notes

Map Sheet 48: Earthquake Shaking Potential for California, 2025. Click the map to open a high-resolution .JPG image in a new tab.

Get the PDF version of Map Sheet 48 (12 MB - opens new tab)

New Seismic Hazard Maps - Proposed Earthquake Fault Zones

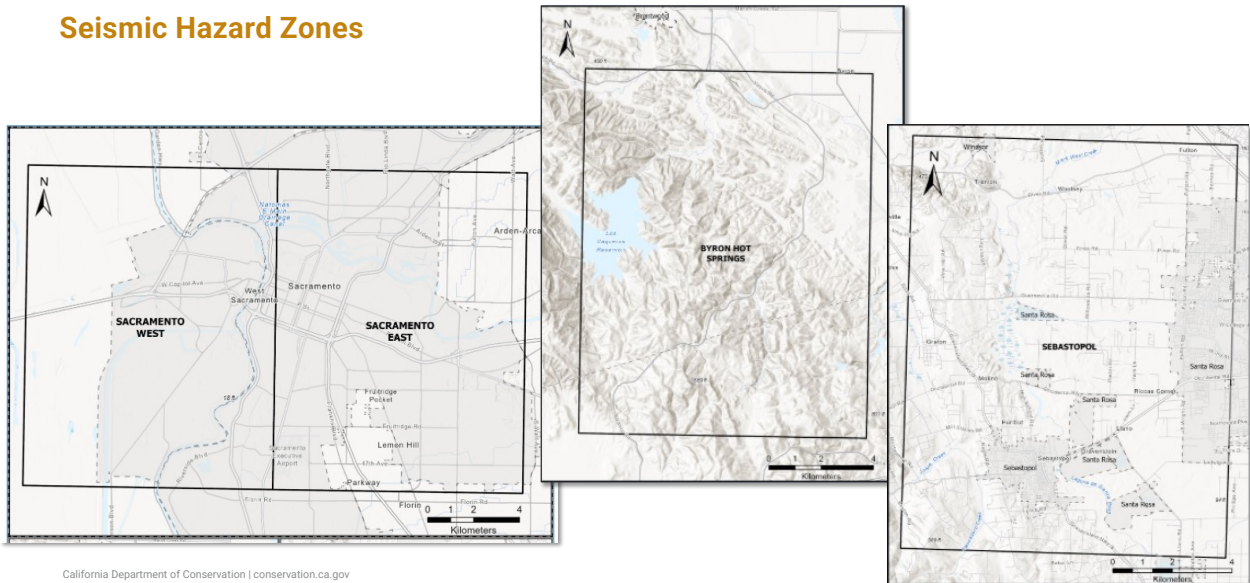
Alquist-Priolo Earthquake Fault Zones



New Seismic Hazard Maps – Proposed Seismic Hazard Zones



Seismic Hazard Zones



31



THANK YOU

If you have questions email me at
Timtohy.Dawson@conservation.ca.gov

32

Updates from the Cal OES Seismic Hazards Program

Kristopher White, Earthquake Program Specialist,
California Governor's Office of Emergency Services

33

CREATE A
**RESILIENCY
ROADMAP**
FOR YOUR SMALL
BUSINESS



Outsmartdisaster.calosba.ca.gov

Disclaimer: Outsmart Disaster is a disaster awareness campaign that includes a no-cost business continuity training program offered by the California Office of the Small Business Advocate (CalOSBA). CalOSBA employees support the program in a training capacity only. CalOSBA does not make any recommendations or guarantees and assumes no responsibility concerning the activities of participating businesses. Participants, and not CalOSBA, are responsible for all plans created and any actions taken following the Outsmart Disaster training.



34

Disasters Take Many Forms and Put Small Business Revenue at Risk

Public Health Crises Road Closures
 Employee Shortages Power Outages
 Supply Chain Disruptions Building Damage
 Flooding Earthquakes Wildfires
 Utility Failures Cyberattacks
 Transportation Disruptions
 Vandalism Extreme Heat Equipment Failure
 Storms Pandemics Inflation Vendor Failures
 Evacuations Theft Flooding Data Breaches



35

Why Small Business Preparedness is Key to California's Economy

-  4.2 million small businesses in California
-  98% have fewer than 20 employees
-  7.5 million jobs created by small businesses
-  47% of private sector jobs
-  2/3 of new jobs
-  CA has more small businesses than any other state
-  Small businesses export \$69 billion annually
-  42% of California's total exports



36

What is Outsmart Disaster?

A program which enables businesses and nonprofits to

- 📍 Identify the potential risks to their location/areas of operations
- 📍 Helps create a plan – the Business Resiliency Roadmap
- 📍 Build resiliency and continuity planning to bounce back quicker after a disruption
- 📍 Why have a Business Continuity Plan?

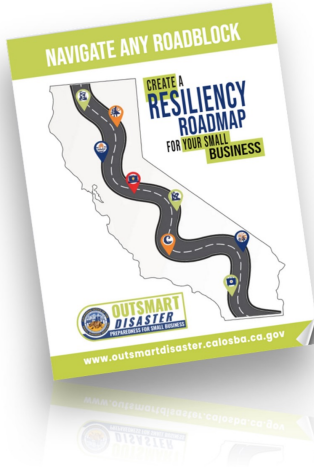


37



38

Simplified, Step-by-Step Resource



- Available in English and Spanish
- Customizable forms
- Co-branded with local resources
- Free and accessible for all businesses and non-profits



39

Upcoming Hayward Event

Outsmart Disaster: City of Hayward's HayWired Scenario Toolkit Workshop



- **Date:** Thursday, September 18, 2025

Time: 8:30 a.m. to 12:00 p.m.

Location: Hayward Library, 888 C St, Hayward, CA 94541

<https://bit.ly/HaywiredHayward>



40

Let's Build Resilience Together!

Thank you! Any Questions?



Contact us



outsmartdisaster.calosba.ca.gov/

Shruti Narain

Shruti.Narain@gobiz.ca.gov

41

Q&A

Join ECA (free) be notified of future events, etc.
EarthquakeCountry.org/join

Questions?

info@earthquakecountry.org

California Department of Conservation | conservation.ca.gov

Please complete our
brief workshop survey:

Surveymonkey.com/r/8YV7KCX



42



From Fault Line to Finish Line: How Our Earthquake Exercise Took Shape

Presented by

Kacey Treadway, CEM
Emergency Planning Coordinator
Santa Clara County Office of Emergency Management

43

AGENDA

1. Introduction
2. Agenda
3. Exercise Summary & Overview
4. Planning & Workshops
5. Highlights, Resources, & Recommendations
for each day
6. Additional Resources & Final
Recommendations
7. Lessons Learned
8. Q&A



44

Exercise Summary & Overview



45

Exercise Summary

- Magnitude 8.3 earthquake scenario
- Epicenter along the San Andreas Fault
- Five half-day sessions
- Functional exercise
- Focused on Countywide response & recovery



47

Exercise Overview

- 458 total participants
- 52 departments, agencies, and partners
- 312 scripted injected (not including spontaneous and ARES/RACES ones)
- First “start-to-finish” exercise



48

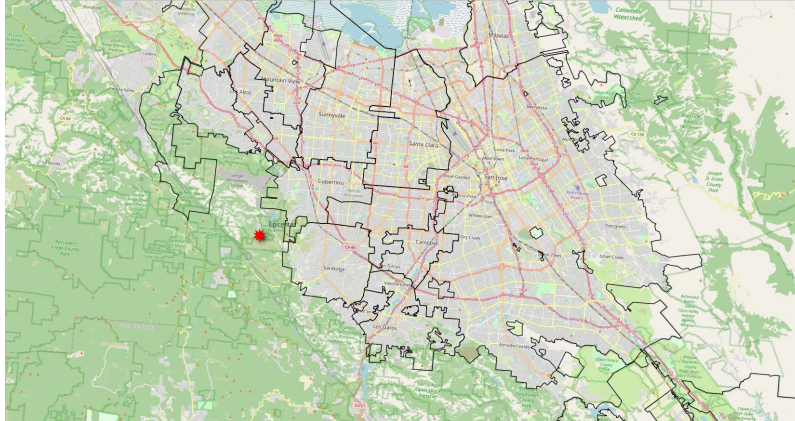
Exercise Overview

- San Andreas Fault Line
- 1906 San Francisco Earthquake produced an 8.3
- Focused on MMI X and XI shaking to equate to potential damage



49

Exercise Overview



50

Planning & Workshops



51

[illegible]

Workshops

- Covered new EOP annexes:
 - Mass Care & Emergency Assistance
 - Access & Functional Needs + Lifelines
 - Disaster Recovery Plan
 - Crisis Communications
 - EOC Readiness & Operations and Continuity of Operations



54

Day Highlights, Resources, & Recommendations



55

Day 1 Highlights

- Initial EOC activation and staffing
- Staggered staff arrivals
- Section coordination and situational awareness development
- No player briefing but had a video to set the stage
- Aftershock announcement
- ARES/RACES calling in from the hospitals



56

Day 1 Recommendations & Resources

- Give at least 4 hours in roles to allow acclimation
- Allow new participants time in the EOC to get comfortable
- Clear check-in instructions if section chiefs are absent
- Tools:
 - Canva + voice generator for scenario briefings
 - QGIS for sim cell situation awareness



58

Day 2 Highlights

- Focus on COOP and Mass Care operations
- Dedicated COOP Sim Cell with pre-coordinated injects
- ARES/RACES reported jurisdiction status



59

Day 2 Recommendations & Resources

- Keep Sim Cell personnel consistent
- Ensure inject information is specific as possible
- Create/update Day 2 EAP and review objectives with participants
- Have some PIOs act as reporters during press briefings
- Tools:
 - Satellite phones, if available
 - COOP Status Board



60

Day 2 Recommendations & Resources

Title	lcpd_id	facilities	staffing	contact_name	contact_phone	activating_coo...	facility_notes	staffing_notes	overall_status
County Fire		Impaired	OK	[REDACTED]		No	Access to 1315 Dell Ave. is hampered, alternate facility @ 14700 Winchester Blvd. is being drafted		Impaired



61

Day 3 Highlights

- Utilities & Damage Assessment
- EOC was continuing operations and outstanding items from previous days while managing power outages
- Field component with 3 damage assessment teams reporting surveyed building through an ARES/RACES command post



62

Day 4 Highlights

- Focus on Individual Recovery & Logistics
- 1-week post-event: response mostly concluded
- Information from LACs and shelters used to populate community points of distribution needs
- Finance working on state/federal requests



65

Day 4 Recommendations & Resources

- Prepare jurisdiction initial damage estimates (IDEs) for review
- Enhance coordination between PIOs and Finance/Recovery Manager
- Consider emotional and social needs of the community in planning efforts
- Tools:
 - IDEs
 - Census Data



66

Day 4 Recommendations & Resources

General Information						
Jurisdiction:	Cupertino			Av Home \$	\$3,200,000.00	
Part I : Private Property (Cumulative Damages)						
Property Type:	# Destroyed	# Major Damage	# Minor Damage	# Affected	Private Property Dollar Loss	Insurance (%)
Homes	2170	2832	4340	6501	#####	11.00%
Business						
Non-Profit Orgs						
Outbuildings						
Totals:	2170	2832	4340	6501	#####	
Part II : Public Property (Including eligible non-profit facilities) (Cumulative Damages)						
Type of Property	Estimated Dollar Loss			Insured (%)		
Category A (Debris Removal)	\$225,000,000.00					
Category B (Emergency Protective Measures)	\$17,000,000.00					
Category C (Roads and Bridges)	\$3,000,000.00					
Category D (Water Control Facilities)						
Category E (Public Buildings and Equipment)						
Category F (Public Utilities)						
Category G (Parks and Recreations Facilities)	\$3,000,000.00					
Total PA Loss:				\$248,000,000.00		



67

Day 5 Highlights

- Focus on Recovery and Public Assistance operations
- 3 weeks post-event: leveraging prior decisions and data
- Building the Recovery Action Plan
- Addressing niche questions: road ownership, tax exemptions, legal considerations



68

Day 5 Recommendations & Resources

- Include CalOES to review submissions and explain rejections
- Encourage participants to ask “what-if” questions about recovery
- Test environment in RRS/CalEOC is helpful
- Tools:
 - IDEs and resource requests from other days’



69

Day 5 Recommendations & Resources

Inject for building a Recovery Action Plan (RAP)

Following the Governor's emergency proclamation and anticipated federal disaster declaration, the CEO is requesting that you lead the development and execution of the County's Recovery Action Plan (RAP).

Please begin outlining a framework for the RAP and coordinate with Section Chiefs and departmental recovery leads to gather the following information:

1. Incident Summary and Impact Overview
 - Key known damages by sector (housing, infrastructure, economic, etc.)
 - Populations and communities most affected
2. Recovery Objectives & Guiding Principles
 - Short-, medium-, and long-term goals
 - Integration of equity, sustainability, and resilience
 - Access and Functional Needs considerations
3. Organizational Structure for Recovery
 - Identify your Recovery Support Function (RSF) leads
 - Recommend internal recovery coordination structure
4. Key Recovery Needs & Projects
 - Prioritize urgent recovery actions
 - List proposed projects or policy decisions for early implementation
5. Resources & Gaps
 - Funding strategies (FEMA, Cal OES, HUD, NGOs)
 - Staffing, legal, and logistical gaps
6. Community Engagement Plan
 - Outline how you will incorporate input from the public, community-based organizations, and vulnerable populations

Next Steps

- Timeline for finalizing the Recovery Action Plan
- Recommend a schedule for standing Recovery Task Force meetings

Please return a preliminary outline of your plan by 1200 hours today to inform the Management Section's next operational period and any early recovery mission assignments.



70

Additional Resources



71

Additional Resources

- [San Andreas Fault Information](#)
- [USGS Scenarios Information](#)
- Local GIS Data Sources
- Local partners



72

Lessons Learned & Final Recommendations



73

Lessons Learned

- Veoci workflows need clarification and consistent usage
- Cross-section networking and collaboration require improvement
- “Back-to-basics” tools help with staff turnover
- Gaps in resources, personnel, and training are expected—document and prioritize
- Small engagement tactics boost morale



74

Final Recommendations

- Reduce siloing through team-building exercises and cross-section workshops
- Track follow-through on tasks that carry over between exercise days
- Secure buy-in for start-to-finish exercise format
- Co-design exercise elements with departments to address their unique needs



75



Q&A

76

CONTACT INFORMATION

Kacey Treadway | Kacey.Treadway@oem.sccgov.org
 OEM Training and Exercise | Training@oem.sccgov.org



77

Q&A

Join ECA (free) be notified of future events, etc.
EarthquakeCountry.org/join

Questions?
info@earthquakecountry.org

Please complete our
 brief workshop survey:

SurveyMonkey.com/r/8YV7KCX



78

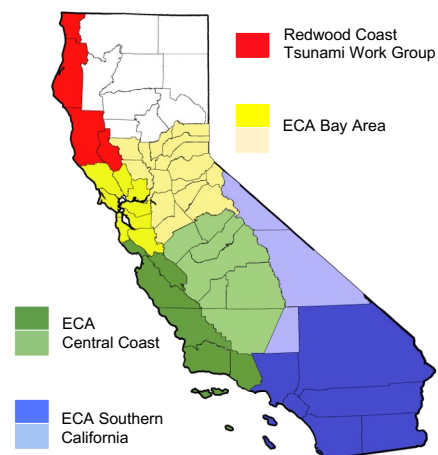
ECA 2025 Activities & Opportunities

Mark Benthien
Statewide California Earthquake Center (USC)
ECA Executive Director

79

Earthquake Country Alliance

- 4000+ *Public-Private-Grassroots* leaders
- Statewide *committees* develop resources and deliver programs
- *Regional Alliances* organize meetings and outreach activities
- California's Office of Emergency Services provides FEMA NEHRP funding for ECA earthquake mitigation activities
- USC's Statewide California Earthquake Center (SCEC.org) administers ECA



Join: EarthquakeCountry.org/join



80



Statewide California Earthquake Center

A collaborative research and education hub that brings together experts across geoscience and related fields

SCEC's mission is to develop and share cutting-edge earthquake system science to enhance California's resilience and to educate and inspire future scientists.

SCEC is a consortium of more than 90 institutions and a **community of over a thousand individuals**, guided by diverse leadership teams to fulfill the Center's mission.

SCEC's Natural Laboratory and Study Area



Focus on the San Andreas Fault System

Earthquake System Science and Innovation



SCEC integrates new research and technologies to enhance predictive system-level models and simulations to synthesize knowledge and quantify seismic hazards.

Education and Workforce Development



SCEC prepares the next generation of scientists through transformative research experiences, community building, and professional skills development.

Outreach and Community Engagement



SCEC engages stakeholders across geoscience and related fields through workshops, drills, and collaborations to advance earthquake science, education, and preparedness.

Earthquake Preparedness and Risk Reduction



SCEC bridges the gap between cutting-edge science and preparedness for a more resilient California, through education, research, and more realistic earthquake simulations.











81

ECA Statewide Activities

Develop Messaging and Resources:
EarthquakeCountry.org
EarthquakeCountry.org/resources
Terremotos.org

Support Tsunami Preparedness Week:
TsunamiZone.org/california


Created and Coordinate
The Great California ShakeOut:
ShakeOut.org/california

Webinars & other events
EarthquakeCountry.org/calendar





March
22-30,
2025



Oct. 16
in 2025

82

ECA Sector-Based Outreach Committees & Chairs

- | | |
|--|-------------------------|
| • Accessibility | Sue Fisher |
| • Businesses | Ines Pearce, PGP |
| • Healthcare | Mary Massey, CHA |
| • Higher Education | Steve Goldfarb, USC |
| • Non-Profit & Faith-Based Organizations | Cheryl Nagy, SoCal VOAD |
| • PreK-12 Education | Carlos Garcia, CDE |
| • Public Sector | Open |

Join us! EarthquakeCountry.org/committees

83

ECA Regional Alliances

- Quarterly workshops - online or in-person
- Speakers/event tabling
- Regional coordination among public, private, and grassroots organizations



View Past Workshops and more:
EarthquakeCountry.org/alliance

84

ECA Outreach Bureaus (Regional & Statewide)

• Events Bureau

- Speakers for online/in-person events – **Join us!**
- Booths and tables at events
- Request presenter or information table:
EarthquakeCountry.org/eca-events



• Participation Bureau

- ShakeOut and Tsunami Week recruitment and communications
- County/City Partners for local engagement

• Communications Bureau

- Statewide and local coordination
- Media event planning
- Year-round messaging / news releases
- Post-earthquake shared messaging



85

Seven Steps To Earthquake Safety

BEFORE

1. Secure
Your Space



2. Plan
To Be
Safe



3. Organize
Supplies



4. Minimize
Financial Hardship



5. Drop, Cover,
and Hold On



6. Improve
Safety



AFTER

7. Reconnect
and Restore



EarthquakeCountry.org/sevensteps

Terremotos.org/sietepasos

86

Safety Guidance in 16 Languages



EarthquakeCountry.org/languages

87

Secure Your Space Guide & Worksheet

Step 1: Secure Your Space
How to prevent items from falling during earthquakes

Imagine your entire home or workplace being picked up and shaken during an earthquake – even heavy objects can fall or be thrown around! This usually causes the most injuries during earthquakes, and replacing items or repairing damages can also be very costly.

These issues can be prevented through simple actions to secure furniture and other items in place. That's why "Secure Your Space" is Step 1 of the Seven Steps to Earthquake Safety!

Start now by moving tall furniture like bookcases away from beds, sofas, or other places where people spend a lot of time. Move heavy objects to lower locations.

Then continue by securing things such as televisions, dressers, water heaters, cabinet doors, hanging objects, and small objects, following the instructions within this document. Try securing at least one item every weekend until you get everything done. You may need to ask others for help or to borrow tools. Perhaps you might help them too. We're all in this together!

Learn more at EarthquakeCountry.org/Step1

© 2022 Earthquake Country Alliance

How to Secure:

- Tall Furniture
- Televisions/Monitors
- Hanging Objects
- Small Objects
- Refrigerators
- Cabinet Doors
- Storage Racks
- Water Heater

EarthquakeCountry.org/step1

88

ECA Mini Awards

- **Purpose:** provide materials for ECA member projects that improve earthquake resilience by promoting mitigation, awareness, and preparedness, and multiply impact of programs
- **Purchases:** \$500 to \$1000 each
- **Eligibility:** Proposals for earthquake **mitigation** and **education** activities
- **New packages:** For 2025 you'll be able to fully customize the materials for your project (furniture straps, printed materials, etc.)
- **2025 Award Application period:** Proposals were due July 23

89

ECA Late-2024 Nor Cal Mini Award Recipients

Pace Solano: 2 file cabinet straps, 4 furniture/bookcase straps, 1 storage cabinet fastener, 2 TV straps, 12 QuakeHOLD putty, 4 QuakeHOLD gel; \$275

City of Martinez: 8 storage rack fastening kit, 4 computer straps, 3 refrigerator kits, QuakeHOLD putty, \$500

Invictus Academy of Richmond: 20 furniture straps, 10 bookcase/storage strap, 5 file cabinet straps, 3 copier fastener; \$500

Cortez Family Childcare: 5 furniture strap, 3 bookcase/storage straps, 3 storage rack fastening kit, 6 wall "lasso" kit, 1 refrigerator kits, 1 water heater strap, 1 seismo-latch deluxe, 2 QuakeHOLD putty, 2 QuakeHOLD gel; \$405

Pacific Skyline Council, Boy Scouts of America: 9 furniture/bookcase straps, 8 storage cabinet fastener; \$495

St. Francis Catholic High School: 20 file cabinet straps, 5 bookcase/file cabinet fastener, 5 storage cabinet fastener; \$500

Comunidades Aliadas Tomando Acción: 4 storage rack fastening kit, 2 refrigerator kits, 4 bookcase/file cabinet straps, 2 furniture fastening kit; \$340

Golden Valley USD: 5 bookcase/storage straps, 4 bookcase/file cabinet straps, 3 storage cabinet fastener, 4 storage rack fastening kit, 5 QuakeHOLD; \$495

International School of Monterey: 10 bookcase/file cabinet straps, 2 storage rack fastening kit, 2 storage cabinet fastener, 2 refrigerator kits, 6 furniture straps, 4 file cabinet strap; \$500

American Red Cross: 1 furniture strap, 3 bookcase storage straps, 8 file cabinet straps, 3 storage cabinet fastener, 2 storage rack fastening kit, 1 TV strap, 2 computer straps, 1 copier fastener, 1 refrigerator kits, 1 seismo-latch deluxe, ; \$495

Salinas Valley Solid Waste Authority: 2 file cabinet straps, 2 furniture/bookcase straps, 4 storage cabinet fastener, 1 storage rack fastening kit, 10 computer straps, 1 tabletop fastening kit, 5 QuakeHOLD putty, 2 QuakeHOLD gel, 4 picture hooks; \$500

Williams Whittle Residential Care Home: 1 furniture strap, 3 file cabinet strap, 1 storage cabinet fastener, 1 TV strap, 4 refrigerator kits, 3 water heater straps, 4 QuakeHOLD putty, 3 QuakeHOLD gel, 2 residential kit; \$500

San Carlos School: 10 furniture straps, 8 file cabinet straps, 9 bunk bed fastening kits, 1 electronic strap; \$500

Our Lady of Miracles Catholic School: 20 bookcase/storage straps, 5 file cabinet straps, 1 bookcase/cabinet fastener, 1 copier fastener, 2 QuakeHOLD putty; \$325

Building Blocks of Grace Preschool: 14 furniture straps, 2 file cabinet straps, 1 storage cabinet fastener, 2 refrigerator kits, 2 seismo-latch deluxe, 1 picture hook; \$370

Mendocino County Office of Education: 20 bookcase/storage straps, 20 cabinet latches, 10 QuakeHOLD putty, 30 picture hooks; \$500

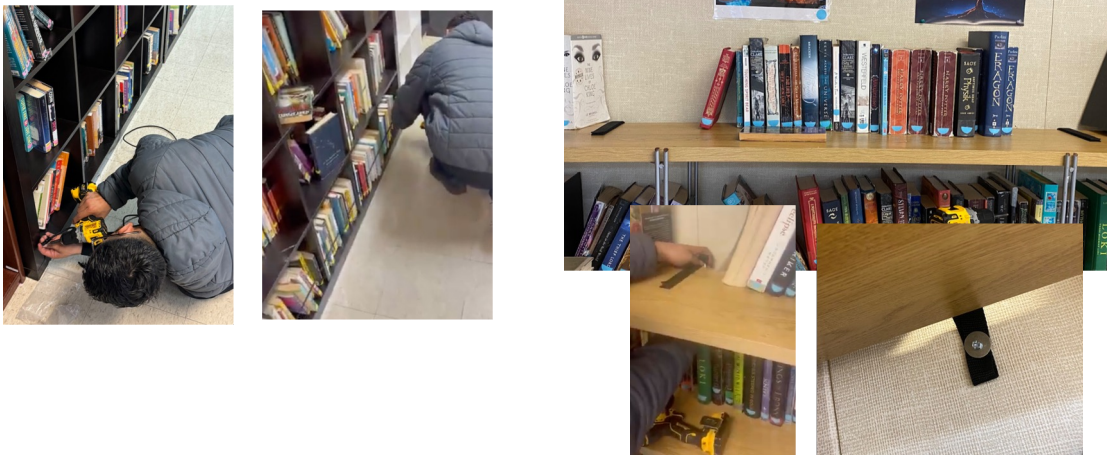
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City of Martinez, CA



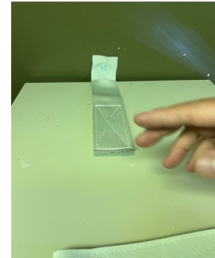
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Invictus Academy of Richmond



92

International School of Monterey



93

Mendocino County Office of Education



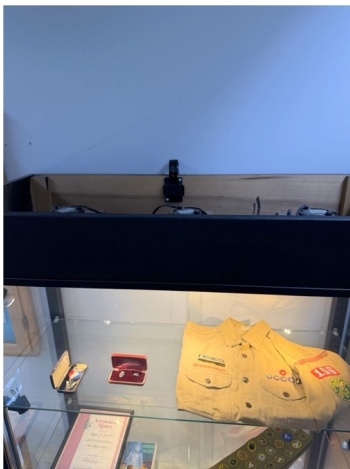
94

Salinas Valley Solid Waste Authority



95

Boy Scouts of America- Pacific Skyline Council



96

Our Lady of Miracles Catholic School



97

Disaster Supplies Checklist

- Choose where you want to store your supplies:
 - Under-Bed bag?
 - Go-Bag?
 - Home?
 - Work?
 - Car?
- What personal items do you need?

Step 3: Organize Emergency Supplies
The Seven Steps to Earthquake Safety

It may be easier and cheaper than you think to **organize emergency supplies in convenient locations**. This is not just about "having a kit." Include supplies specific to you, such as medications, eyeglasses, clothing, shoes, toiletries, and more. This is in addition to the basic supplies everyone should have (water, food, first-aid, flashlight, radio, etc.).

The chart below can help you customize supplies for when and where you need them: **under-bed bag** (immediate supplies), **evacuation** ("go-bag" - 3 days), **home** (2 weeks), and perhaps **at work** and in your **car**. Choose what makes the most sense based on your needs and budget. Learn more at EarthquakeCountry.org/step3.

Under-Bed?	Go-Bag?	Home?	Work?	Car?	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clothing, shoes, hard hat / helmet, gloves
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Whistle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flashlight / headlamp
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dust mask and goggles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glasses / contacts
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tools (gas wrench, shovel, crowbar, knife)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contact info (in-state, out-of-state)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of ID / important documents
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Batteries, battery pack, & charging cables
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Medications / Copies of prescriptions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	First-aid supplies and emergency blanket
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water and food (long shelf-life)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Portable radio
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Toiletries (sunscreen, tissues, hygiene items)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cash (small bills)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maps (local and regional)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pet supplies (food, water, toys, leashes)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Litter / sand (spills, traction)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jumper cables, spare tire, inflator, jack
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flares / road hazard lights
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Personal item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Personal item

Choose... what makes sense for YOU and where to keep it!

Logos: FEMA, ICNP, © 2022 Earthquake Country Alliance

EarthquakeCountry.org/step3

98

Under-Bed Bags

- Keep **shoes**, socks, and a **flashlight** in a **closed** bag attached to each bed.
- You can also include other items as in this picture.



Prevents...

- Stepping on broken glass, or glass in shoes
- Tripping over objects

Allows you to...

- Exit bedroom safely
- Help injured



99

Drop/Lock, Cover, and Hold On: Adapt to Your Situation

- If possible:
 - Drop** on to your hands and knees, where you are
 - Cover** your head and neck with one arm and hand;
 - If a sturdy table or desk is nearby, crawl underneath it for shelter
 - If no table/desk, crawl against a wall or next to low furniture for sideways protection
 - Hold On** to your shelter until shaking stops
- If you can't get back up on your own: don't drop down – sit down, stay in bed, etc. then Cover your head and Hold On.
- If you use a wheelchair or walker with wheels: **Lock** the brakes, **Cover** your head as best you can, and **Hold On**.
- Practice your preferred method with others who assist you
- EarthquakeCountry.org/step5

If You Feel Shaking or Get an Alert:



EarthquakeCountry.org/step5

100

Earthquake Safety Video Series



- Separate short (1-8 min) videos:
 - indoors, nearby table/desk
 - indoors, no table/desk
 - theater/stadium
 - near the shore
 - in a car
 - in bed
 - for users of mobility devices/aids
- View full videos at [Youtube.com/greatshakeout](https://www.youtube.com/greatshakeout)
- Download full videos at ShakeOut.org/messaging

101

Great ShakeOut Earthquake Drills

- Annual opportunity for schools, organizations, and families to practice earthquake safety and other aspects of their emergency plans
- 2025 International ShakeOut Day: **October 16**
- Learn more and register: ShakeOut.org
- How to participate, guides, etc.: ShakeOut.org/howtoparticipate



102

Social Science Research Basis for ShakeOut

People Get Motivated to Prepare When:



- They see and hear consistent information about what to do frequently, in many forms, and from many sources
- They see others like themselves getting prepared
- They talk about preparedness with people they know
- They learn potential consequences, and how to avoid them

Based on research results of Mileti, D., Wood, M., Bourque, L., and others

ShakeOut puts these findings into practice

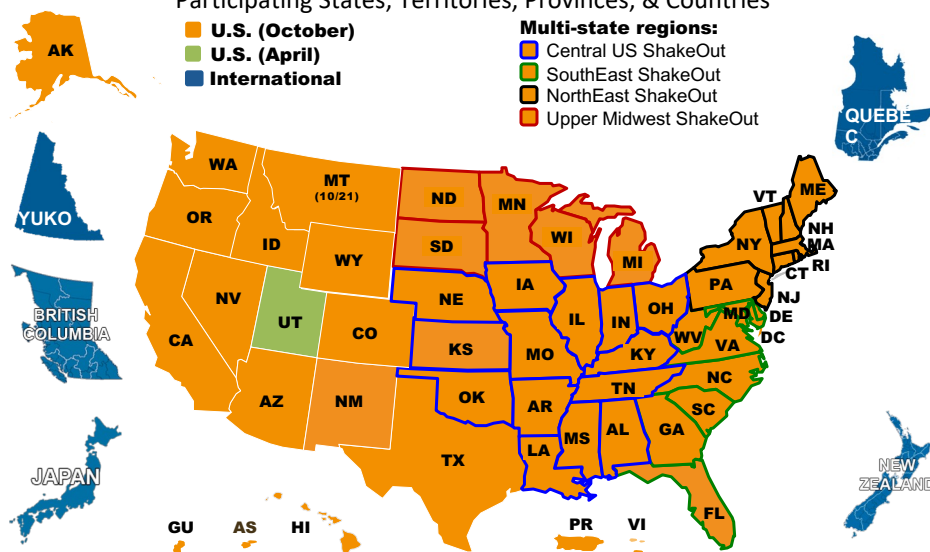
103

Great ShakeOut Earthquake Drills

Participating States, Territories, Provinces, & Countries

- U.S. (October)
- U.S. (April)
- International

- Multi-state regions:**
- Central US ShakeOut
 - SouthEast ShakeOut
 - NorthEast ShakeOut
 - Upper Midwest ShakeOut



Register in your region, or for any country, at ShakeOut.org

104

SCEC's National Coordination Role

As the background organization (with support from FEMA) for ShakeOut nationally, SCEC:

- Maintains and updates all ShakeOut websites
- Creates and distributes regionally customized "ShakeOut Update" email newsletters to encourage participation and additional actions
- Sends individual emails to people who haven't renewed their registration
- Calls larger organizations nationwide to help them to renew their registration
- Creates social media content posts for everyone to share (see ShakeOut.org/messaging and follow x.com/ShakeOut and facebook.com/GreatShakeOut)

A Few, Simple Steps Toward Peace of Mind

Dear <first name>>,

International ShakeOut Day is October 18, but you can also take action right now to prepare to survive and recover. Start with the [Seven Steps to Earthquake Safety](#), share the drill manuals and other guides on the [ShakeOut Resources](#) page, and participate in the ShakeOut conversation on social media with #ShakeOut.

We're all in this together - what we do now determines how well we bounce back from the next significant earthquake!

[Register for the 2018 ShakeOut!](#)

[How to Participate](#) [Resources](#)

[Share and Embed](#) [What is Participating](#)

Shake Out.
Don't Freak Out.
October 18, 2018
www.ShakeOut.org

Promote ShakeOut To Your Community

Whether you're a public information officer, member of the media, or a general ShakeOut enthusiast, the messaging resources at ShakeOut.org/messaging are the best ways to help promote ShakeOut to your community and help educate about earthquake preparedness. Graphics, animations, videos, infographics, and other media can be downloaded and adapted as you need, some of which are highlighted below.



105

Example ShakeOut Resources

Official Participant

Join Us in the World's Largest Earthquake Drill.

DROPI COVER! HOLD ON!

October 16, 2025

Register at ShakeOut.org

Protect Yourself!

If you feel shaking or get an alert.

DROPI COVER! HOLD ON!

Learn more at ShakeOut.org

Great ShakeOut Earthquake Drills

Shake Out

At 10 seconds, Get Ready to Drop, Cover, and Hold On!

Drop, Cover, and Hold On!

DROPI COVER! HOLD ON!

Recommended Earthquake Safety Actions

Shake Out

Drop, Cover, and Hold On!

DROPI COVER! HOLD ON!

Great ShakeOut Earthquake Drills

Drill Guidance for Organizations

(Remote Work, In-Person or Both)

Great ShakeOut Earthquake Drills

Drill Guidance for Grades K-4

(Distance Learning or In-Person)

Simulacros de Terremoto Great ShakeOut

Orientación de Simulacros para Organizaciones

(Por videoconferencia, en persona o ambos)

Get Ready to ShakeOut.

October 16, 2025

Register: ShakeOut.org

ShakeOut. Don't Freak Out.
October 16, 2025 Register now at ShakeOut.org

Shake Out

IF NEAR A STURDY DESK OR TABLE

ShakeOut.org/ArribaYaEstoyDrill!

DROPI COVER! HOLD ON!

LOCK! COVER! HOLD ON!

#ShakeOut ShakeOut.org

106



107

Exercise Themes & Ideas

- The Toolkit identifies **30 Themes** addressed in the scenario, spanning **45 ideas** for discussion-based exercises
- Document symbols indicate **17 Facilitator Tools** (Discussion Guidance and Slidesets) based on the suggested ideas (**and soon 3 more!**)
- All materials are available at EarthquakeCountry.org/haywired

	Planning and Preparedness	Response	Recovery	Mitigation
Access to Data & Information		29		39
Accounting for Employees		29		
Aftershocks & Fault Afterslips			35	
Alternate Locations	23		36	
Building Content				39
Clean-up				39
Communications & Internet	23 & 24	29 & 30		
Customer Base			36	
Economic Impact			36	
Elevators		31		
Employee Commutes and Residences	24			
Employee Retention & Staffing Shortage				
Fires After the Earthquake				
Fuel (Gasoline and Diesel)	24			
Generators	25			
Insurance				
Lifeline Infrastructure in Fault Zones				
Mail Package Delivery				
Mental Wellbeing				
Natural Gas	25			
Payroll	26			
Power (Electricity)	26			
ShakeAlert®	26			
Shutting Off Utilities				
Slow Return to Normal				
Structural & Non-Structural Building Damages				
Supply Chain Movement of Goods	27			
Water	27			
Wastewater Sewer	27			
Working Remotely	28			



108

Toolkit Website and Upcoming Trainings

EarthquakeCountry.org/haywired

Upcoming Workshops

Hayward, September 18 (with CalOSBA)

Access to Data and Information

Newark, September 29 (Small Businesses)

Building Contents

Newark, September 30 (Large Businesses)

Supply Chain – Movement of Goods

Host a Workshop: Email benthien@usc.edu



September 18
Hayward Workshop

109

Q&A

Join ECA (free) be notified of future events, etc.

EarthquakeCountry.org/join

Questions?

info@earthquakecountry.org

Please complete our
brief workshop survey:

SurveyMonkey.com/r/8YV7KCX



110

Brief Announcements from Attendees

Questions?

info@earthquakecountry.org

Please complete our
brief workshop survey:
[Surveymonkey.com/r/8YV7KCX](https://www.surveymonkey.com/r/8YV7KCX)



111

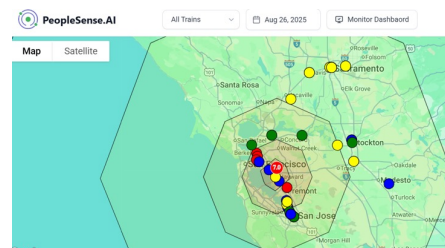


ECA Bay Area Summer 2025 Workshop

Hayward City Hall, Aug 27th 2025



PeopleSense®.AI



Glocol Networks, A Technology Partner of USGS



All Logos & Trademarks belong to their respective companies

112

What is PeopleSense®.AI ?

PeopleSense™ Data Lake

PeopleSense Rail

PeopleSense Places

Cal PIDS

✓ Real-time info on Live Occupancy

Training Simulators

113

What is the USGS-Glocol ShakeAlert PeopleSense Partnership?

Data Application FlowChart

PeopleSense Sensors

- Time Stamps
- Passenger Crowding
- Location

PeopleSense Rules Engine

ShakeAlert Message

Seismic Event

USGS ShakeAlert

The Earthquake Early Warning System for the West Coast of the United States

Real-Time Occupancy Info at the time of ShakeAlert EEW

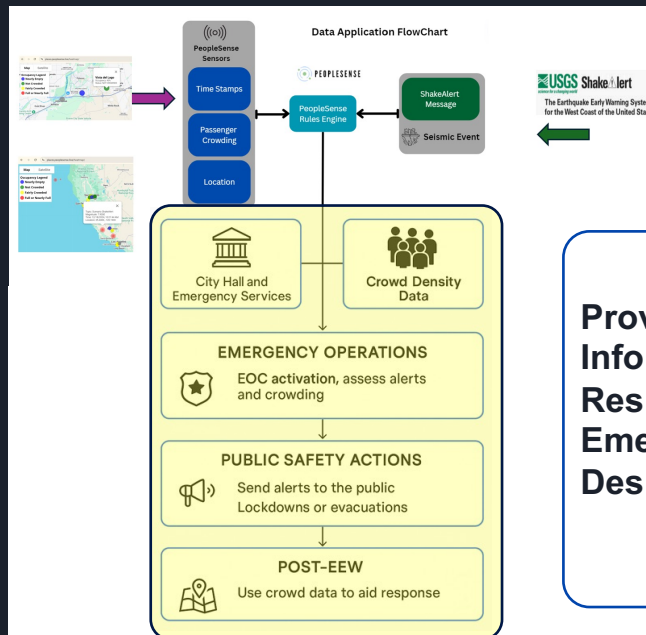
End Users

- Transit Agencies
- Emergency Responders
- Users

114



...Extending to Emergency Service Providers & First Responders



Provides Valuable Info to First Responders & Emergency Dispatchers

117




Dr Harsh Verma
CTO & Co-Founder, Glocol Networks
harsh@PeopleSense.AI


118

ShakeAlertTM Ready


Expanding the range of venues and contexts where earthquake preparedness information is made available through community-specific education and outreach



National, state, and local parks; other outdoor venues; other free-choice learning environments



K-12 schools with ShakeAlert technical implementations (ShakeAlert-powered schools)



Community Emergency Response Team (CERT) Programs in CA, OR, and WA

119

ShakeAlertTM Because seconds matter.

Preparing Outdoor Visitors for Earthquakes in Parks and Free-Choice Learning Environments

PRODUCTS

- Park-specific fact sheets** explain earthquake risks, geologic context, alert access, and safety actions.
- A “Know the Signs” coloring sheet and poster** visually highlight natural warning signs of earthquakes.
- A Resource Toolkit** provides outreach tips and tools to help staff and visitors prepare for earthquakes.







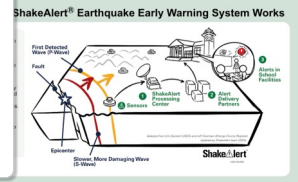
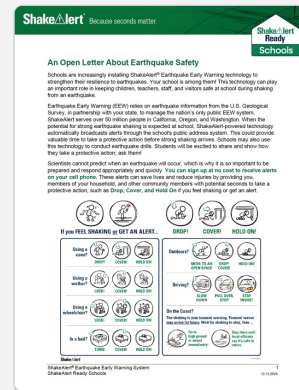


120

Preparing K–12 Schools and Districts for Earthquakes with ShakeAlert Educational Resources

PRODUCTS

- **Grade-level lessons** cover earthquake science, early warning, and protective actions.
- **Professional development** prepares staff to respond to ShakeAlert-powered alerts, and
- **Parent presentations and engagement letters** raise awareness of ShakeAlert's role in school safety.
- **Administrator resources** to support implementation.



We Need Water - Why?



Examine the cup of water. Estimate:

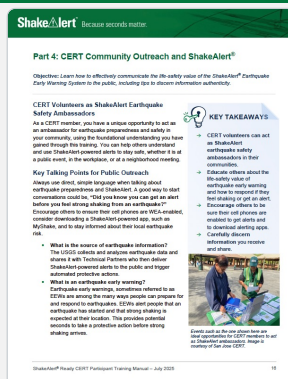
- How many cups do you need to drink per day?
- How many cups do you need to wash?
- How many cups do you need to flush the toilet?
- How many cups do you need for other uses?
- How many **total** cups do you estimate you need per day?

121

Preparing CERT Teams with Earthquake Early Warning Training and Resources

PRODUCTS

- **CERT Participant Manual**
- **Essentials Version (15 minutes)**
Instructor Guide & PowerPoint Slides
- **Full Version (60 minutes)**
Instructor Guide & PowerPoint Slides
- **Roll-Out/Implementation Strategies**



Why This CERT Training?

The West Coast is "earthquake country," where 55 million people and infrastructure are threatened by earthquake hazards.

As public safety "ambassadors," CERT members can educate others about ShakeAlert and its public safety benefits.

ShakeAlert can provide precious seconds of warning before strong shaking from an earthquake reaches a location.



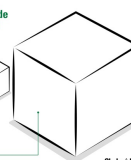
About Magnitude

- Magnitude (M) measures the total energy released by an earthquake and is reported as a single value (e.g., M 6.0).
- A single step in the magnitude scale, such as from M 5.0 to M 6.0, represents a 32x stronger earthquake.


Earthquake Magnitude and Energy Released

A single step in the magnitude scale represents a 32x increase in energy released.

Magnitude 5
Magnitude 6
Magnitude 7
Magnitude 8
Magnitude 9




122



We need your feedback!

Test out this free CERT training supplement and tell us what you think.

Email Corey Reynolds at corey@coreyreynolds.com or chat with Sam or Dena later!



Part 1: About Earthquakes and ShakeAlert EEW System Basics

Part 2: ShakeAlert-Powered Alerts and How to Get Them

Part 3: How ShakeAlert-Powered Alerts Contribute to Life Safety

Part 4: CERT Community Outreach and ShakeAlert

123

What is something that you:

learned
will do
will use
will tell others

124

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