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OF EMERGENCY SERVICES



ALFRED E. ALQUIST
SEISMIC SAFETY COMMISSION MEETING
In-person and Teleconference Meeting
Thursday, April 9, 2026

1. Call to Order and Roll Call

Chair Rabbitt called the meeting to order at approximately 10:07 a.m. A roll call was conducted to establish a quorum.

Commissioners In-Person Attendance

David Rabbitt, Chair, Local Government
Debra Garnes, Vice Chair, Local Government
Ida Clair, State Architect
Representative Lori Nezhura for Caroline Thomas Jacobs, CA Governor's Office of Emergency Services (Cal OES)
Joone Kim-Lopez, Public Utility
Dr. H. Kit Miyamoto, Structural Engineer
Kevin McGowan, Emergency Services
Cindy Silva, Local Government

Commissioners Virtual Attendance

Representative Irina Brauzman for Stoyan Bumbalov, Building Standards Commission
Vincent Wells, Fire Protection

Commissioners Absent

Assembly member Gail Pellerin, CA State Assembly

2. Chair Remarks

Chair Rabbitt announced that this will be his final meeting as Chair of the Seismic Safety Commission (SSC) and that he will not be running for what would be his fifth term as Sonoma County Supervisor. Chair Rabbitt expressed that he would like to continue serving on the commission after the conclusion of his term with Sonoma County at the end of the year.



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3. Introduction of Director Caroline Thomas Jacobs, California Governor's Office of Emergency Services

Director Thomas Jacobs introduced herself to the SSC. They provided a brief history of her experience that led to her becoming the new director of Cal OES and a commissioner for the SSC.

4. Approval of Seismic Safety Commission (SSC) March 12, 2026, Meeting Minutes:

Commissioner Silva made a motion to approve the SSC March 12, 2025, meeting minutes, seconded by Commissioner Kim-Lopez. Public comment was opened before the vote, and no comment was made. A roll-call vote was held, and the motion passed with one abstention from Commissioner Clair.

5. Election of Chair and Vice Chair

-Dr. Sara K. McBride, Ph.D., Executive Director, SSC

The SSC is required by legislative law to elect a Chair and Vice Chair annually. As mentioned in the Chair Remarks, Commissioner Rabbitt is not seeking reelection as Chair this year. Vice Chair Garnes applied for either the Chair or the Vice Chair position in this year's election.

Chair Rabbitt moved to elect Vice Chair Garnes as the new Chair of the SSC, seconded by Representative Nezhura. Before the vote, there was an opportunity for public comment, but no comments were made. The motion passed unanimously.

Commissioner Kim Lopez moved to designate Commissioner Rabbitt as the Vice Chair, seconded by Representative Nezhura. The public was invited to comment, but no comments were provided. A vote was held, and the motion passed unanimously.

6. From Ideas to Impact: How Caltech Seismology Lab Helps Advance Seismic Safety in California

-Prof. Zhongwen Zhan, Director, Seismological Laboratory, Caltech



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Professor Zhan spoke to the SSC about the history of the Caltech Seismology Lab and the various ways it supports seismic safety in California. The seismic lab at Caltech was established in 1921 with five stations to monitor seismic activity; today, there are over 500 stations in Southern California. Tracing the history of the seismology lab, Professor Zhan described three examples currently used to strengthen seismic safety: the Community Seismic Network, Distributed Acoustic Sensing, and Damage Proxy Maps.

Professor Zhan talked about how Caltech has begun using fiber-optic cables as seismic sensors along lines running from Glendale to Long Beach, spaced every 10 meters. Currently, less than 1% of the fiber statewide is used for seismic sensors, and if all the cables were used, it could add between 1 million and 2 million more sensors statewide.

It was announced that the Dr. Lucy Jones Center for Science and Society will be moved into the Seismo Lab.

Vice Chair Rabbitt asked what is involved in installing the sensors in the fiber-optic cable and what incentives might be used to facilitate this process. Professor Zhan responded that the sensors do not harm the existing fiber and collect data by sending a laser through it.

Representative Nezhura asked if this project has been pitched to a city or county as a pilot program. Professor Zhan's response focused on the scalability of implementation, with a potential pilot in a high-seismic-risk area.

Commissioner Kim-Lopez asked whether funding is the primary need for expanding sensor efforts. Professor Zhan replied that funding is one of the biggest needs, with an implementation cost of approximately \$20 million, excluding ongoing operational costs.

Commissioner Clair asked about the Community Seismic Network, which has sensors at every LAUSD school. Is there a need for help with scalability? Commissioner Clair had an additional question about the boxes installed in schools and whether they are easily unplugged. To answer the question about sensors in schools, the boxes are installed in locations such as lockers and are not easily mistaken for being unplugged.



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7. Seismic Plus: Addressing Risk in an Era of Compounding Disasters and Polycrisis

-David Olgosby, University of California Disaster Resilience Network (UCDRN)

David Olgosby presented on the University of California Disaster Resilience Network and its work on compounding disasters. The UCDRN is a coordinated set of research centers across the UC system, with each campus focusing on a different area of disaster risk, yet designed to work together.

8. Lunch Break

A lunch break was held from 11:43 a.m. to 12:51 p.m.

9. UC San Diego Shake Table Project Update

-Prof. Tara Hutchinson, P.E., Professor, UC San Diego

Professor Hutchinson started her presentation by thanking all the partners who participated in the project. Current efforts for this project include the following sections:

- 1) Outreach to partners and wider community
- 2) Dissemination
 - High-profile technical conferences
 - Archival journal papers
- 3) Special Interest Cal OES/SSC
 - UAV Inspection Report
 - Repair Cost and Time Estimates Methods
 - Data Archiving – DesignSafe

The UAV Inspection Report has been provided to the SSC and is under review. The Repair Cost and Time Estimates Methods included multiple vendors that tracked estimated repair costs at different damage states of the structure. An additional method for conducting a virtual walkthrough to estimate damage using OpenSpace.ai was discussed.

Commissioner Miyamoto asked a question regarding the acceleration/amplification of testing on the shake table. Professor



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Hutchinson stated that the amplification did not exceed 3Gs. Commissioner Miyamoto also commented on how well the structure held up in the fire testing.

Commissioner Silva asked a question related to housing costs and the implications of adding the use of cold-formed steel to the building code.

The Public was given the option to comment, but no comment was made.

10. **ShakeOut 2.0**

-Prof. Ahmed Elbanna, Statewide California Earthquake Center, University of Southern California

Professor Elbana provided a history of the 2008 ShakeOut scenario and exercise. Ruptures along the San Andreas Fault were mentioned, with the last event on its southernmost section occurring over 300 years ago. Professor Elbana highlighted six areas of scientific advancement since the initial simulation in 2008: rupture forecasting, ground motion simulation, dynamic rupture physics, community Earth models, observational networks, and scientific AI and ML.

Cost estimates for the damage in the 2008 scenario were \$213 billion in losses, which would be over \$300 billion adjusted for inflation. If other factors are included to reflect growth in population and GDP, the projection could range from \$500 billion to \$1 trillion. Factors absent in the 2008 scenario included wind-enhanced earthquakes, lengthy aftershock sequences, digital shutdowns, exploitation of cyberinfrastructure, and hazard maps influenced by climate conditions.

11. **Project Updates**

- Dr. Sara K. McBride, Executive Director, SSC

Executive Director Dr. Sara K. McBride updated Commissioners on the status of the following projects:

- **Ferndale and Türkiye**— Jia Wang-Connelly, Senior Structural Engineer, provided an update on the Doublet Scenario Regional



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Risk Assessment. She reported progress on Part 2, including the Level 1 regional risk assessment for the San Francisco Bay Area, Level 2 modeling of progressive structural collapse in the focused study area, and Level 3 analysis for the Los Angeles Metropolitan Area. Technical experts are currently reviewing the initial deliverables and will address comments before submitting a revised draft in mid-April. Staff noted that the contract has been extended by one year, through April 2027.

- **UC San Diego Shake Table Project**— For the latest update, see Dr. Tara Hutchinson's presentation above at 9. UC San Diego Shake Table Project Update
- **Mobile Home Building Code Project**— Jia Wang-Connelly, Senior Structural Engineer, provided an update on the BRIC Building Code Plus-Up grant. She reported that, before advancing the project, two rounds of investigations were completed, including literature review, modeling, laboratory testing, and geotechnical soil analysis. She announced that the SSC has selected the Applied Technology Council as the contractor for the project, the Letter of Acknowledgment has been signed, and the project is currently in the final review stage with DGS. Staff noted the intent to launch the project as soon as possible due to FEMA's tight deadline.
- **SSC Website & Design Contract**— Staff reported that the interactive 120-Year Story Map has been completed and is now available on the SSC website. CTS and Cal OES IT are collaborating on site architecture and content integration to ensure a seamless transition to the redesigned SSC website.
- **Reducing Post-Earthquake Ignitions and Improving Firefighting Water Supply Capacity Reliability**— Jia Wang-Connelly, Senior Structural Engineer, reported that the SSC is working through contract issues with UC Berkeley related to the classification of researchers under the agreement. She noted that SSC is coordinating with Cal OES to resolve these issues and move the project forward.
- **Building Health Monitoring Using California's MyShake Smartphone App**— Staff reported that the project has progressed rapidly, and



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Dr. Allen is expected to provide a final report at either the July or October Commission meeting. A related journal article has been completed and will be submitted for publication shortly. SSC anticipates presenting the findings at the next Commission meeting.

- **5-Year Work Program Survey Results** —Staff discussed results from the Commissioner survey, with seven Commissioners participating over two weeks between March and April. The discussion began with Question 1 regarding annual Themes for the 5-Year Work Plan. Responses indicated that 75% of participants prioritized Water Systems, Structures, and Gas as the focus for 2027. Additional priorities, ranked from highest to lowest, were Power Generation, Health Care Facilities and Networks, Transportation, and Cyber Safety/Internet. Commissioners also reviewed comments on the inclusion of Utilities, post-earthquake debris cleanup, and telecommunications, as well as concerns about focusing too narrowly on critical infrastructure rather than on broader disaster risk reduction (DRR).

The discussion then moved to Question 3 on Cross-Cutting Themes—evergreen themes that warrant support or funding regardless of the year. Staff noted that projects incorporating both the annual theme and a cross-cutting theme may receive priority. The highest-rated cross-cutting theme was Polycrisis and Compounding Disasters, followed by Human Dimensions (e.g., social sciences), Improved Safety for First Responders, and Adaptive Reuse and Emergent Technologies (AI, automation), with miscellaneous themes following.

For Question 5, Commissioners reviewed the AB 100 reporting template and identified key elements they felt should be included or requested from departments. Suggestions emphasized the need to ensure consistency and measurable outcomes so the Legislature can identify statewide gaps, track progress, and target investments. Commissioners recommended including required seismic safety activities; voluntary seismic activities; joint ventures



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with local, state, or federal agencies; internal and external groups benefiting from the activities; supporting metrics; and estimated timeframes for returning to normal service after a maximum-level earthquake.

Question 6 addressed the development of an expert elicitation process to help the Commission better understand complex issues by engaging a panel of subject-matter experts.

The final discussion item, Question 9, involved establishing a bi-monthly seminar series to highlight new science, SSC projects, research, and policy initiatives. Commissioners expressed strong support for the concept but noted concerns about whether current staffing levels could sustain the effort.

12. Miscellaneous Announcements

Dr. Sara K. McBride, Executive Director, and Tanya Black, Administrative Processes Manager, provided an overview of Assembly Bill 2471. The bill proposes increasing the SSC membership from 15 to 17 commissioners and adjusting the number of Governor-appointed seats. Required representation would expand to include the State Fire Marshal, the Department of Insurance, and the Strategic Growth Council. AB 100 reporting requirements would also incorporate these agencies. The bill authorizes appointed members to represent investor-owned utilities and, through 2030, permits the Commission to issue policy recommendations related to post-earthquake fire risks and disruptions to lifeline infrastructure.

Staff reported the bill's progression: passage by the Emergency Management Committee (6-0), referral to the Committee on Insurance, subsequent review by the Fiscal Committee, and advancement to the Appropriations Committee. Commissioner Silva asked who introduced the bill and what issue it seeks to address, noting the associated fiscal impact. Staff clarified that the bill was introduced by the Chair of the Emergency Management Committee to improve consistency between permanent and term-limited commissioner positions and to review additional aspects of earthquake response.

Dr. McBride also provided an overview of Senate Bill 895, which would establish the California Foundation for Science and Health Research within



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the Government Operations Agency to administer grants and loans for scientific research. The bill proposes funding the foundation through \$23 billion in bonds, subject to voter approval, and creates both a governing council and a finance committee. Staff noted that the current bill language does not include seismic or geohazard research, though it does reference other hazards such as wildfire. Staff reported ongoing coordination with Legislative Affairs to request amendments adding seismic and seismic-related hazards as eligible funding areas and including the Seismic Safety Commission as an oversight entity for funded projects. A further update will be provided at the July Commission meeting.

13. Public Comments: Items Not on the Agenda

Public comment was provided via Zoom by Eillen Boken, State and Federal Legislative Liaison for the Coalition for San Francisco Neighborhoods. She noted that similar comments were delivered earlier in the week at the State Lands Commission and will be presented next week at the Coastal Commission, as well as at the June meeting of the Ocean Protection Council. Her comments referred to two resolutions and an image related to catastrophic fire risk.

She described a November 18, 2025, resolution urging the transfer of the standalone, high-pressure Auxiliary Water Supply System (AWSS), used for catastrophic and post-earthquake fire suppression in San Francisco, from the SFPUC back to the San Francisco Fire Department. A second resolution, dated January 20, 2026, calls for expanding the AWSS across all San Francisco neighborhoods to improve post-earthquake fire-response capacity. She also referenced an image of the Pacific Palisades fires, noting that it illustrates the Los Angeles Fire Department's lack of infrastructure to draw ocean water for catastrophic fire suppression.

14. Adjourn

Chair Garnes adjourned the meeting at 3:17 p.m.

Minutes submitted by: Tanya Black, Administrative Processes Manager