



State Of California

# ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION



*Governor Edmund G. Brown Jr.*

State Capitol, Room 4202  
Sacramento, California  
Minutes of Meeting  
March 13, 2014

## **Members Present**

Michael Gardner, Chairman  
Greg Beroza  
Salud Carbajal  
Ken Cooley/Elizabeth Hess  
Christina Curry  
Randall Goodwin  
Peggy Hellweg  
Helen Knudson  
Emir Macari  
Jim McGowan  
Kit Miyamoto (arrived at 10:03 a.m.)  
David Rabbit  
Timothy Strack  
Fuad Sweiss  
Daniel Torrez  
Chester Widom

## **Commissioners Absent**

Tracy Johnson

## **Staff Present**

Richard McCarthy, Executive Director  
Karen Cogan, Administrative Officer  
Robert Anderson, Senior Engineering Geologist  
David King, Legislative & Special Projects Mgr  
Henry Reyes, Special Projects Manager  
Fred Turner, Structural Engineer

## **I. CALL TO ORDER/ROLL CALL**

Chairman Michael Gardner called the meeting of the Alfred E. Alquist Seismic Safety Commission to order at 10:00 a.m. and welcomed all participants. Administrative Officer Karen Cogan called the roll and confirmed the presence of a quorum.

## **II. APPROVAL OF JANUARY 15, 2014 MINUTES**

Chairman Gardner asked if commissioners recalled who made and seconded the motions on Page 5 and Page 18 of the minutes. Commissioner Timothy Strack said he seconded the motion on Page 5 regarding the annual report. Commissioner Peggy Hellweg identified herself as one of the people who seconded the motion on Page 18.

Chairman Gardner pointed out that the first word under Item VII on Page 5 should be changed to "Commissioner" rather than "Commission."

Commissioner Fuad Sweiss proposed rewording the first sentence in the fourth paragraph on Page 7 to read as follows: “Commissioner Sweiss asked Mr. Turner to explain to the Commission why 2015 was selected.”

**ACTION:** Commissioner Salud Carbajal made a motion, seconded by Commissioner Strack, that:

*The Commission approve the minutes of the January 15 meeting as amended.*

\* Motion carried, 14 – 0 – 1 (Commissioner Jim McGowan abstaining, Commissioner Kit Miyamoto absent during voting).

### **III. CHAIRMAN’S REMARKS**

#### **Report from Nominating Committee**

Chairman Gardner informed the Commission that Agency representatives recommend electing a new chairman and vice-chairman at the same time, so he suggested postponing the Nominating Committee report until the May meeting. He asked commissioners interested in serving as chairman or vice-chairmen to send a statement of interest and a summary of qualifications to Executive Director Richard McCarthy by April 1 so the Nominating Committee can consider them.

#### **Committee Appointments**

Chairman Gardner suggested that the Commission discuss committee appointments at the May meeting.

### **IV. EXECUTIVE DIRECTOR’S REPORT**

#### **Invitation from Nevada Earthquake Safety Council**

Mr. McCarthy informed the Commission that the Nevada Earthquake Safety Council had invited the Commission to attend a joint meeting on either August 13 or November 12, and he asked if commissioners were interested in holding a joint meeting. He noted that the Commission is already planning to meet in San Francisco in October.

Chairman Gardner expressed his opinion that a joint meeting would be a good way of fostering interstate cooperation. He asked if the Nevada Earthquake Safety Council would be willing to travel to San Francisco for a joint meeting in October, noting that having the meeting there would be helpful to the Commission from a budgetary perspective. Mr. McCarthy said the Nevada group had proposed either August or November, and in recognition of the Commission’s difficulty in arranging out-of-state travel, they were willing to meet at a location in North Lake Tahoe or Truckee.

Commissioner Kit Miyamoto asked how a joint meeting would promote the Seismic Safety Commission's mission and activities. He noted that Commission meeting agendas tend to be rather full because the Commission only meets six times a year. Mr. McCarthy replied that the Nevada Earthquake Safety Council has expressed interest in a number of Commission activities, including Dr. Sumner's investigation of the seismic vulnerabilities of agricultural industries, the study on the seismic risks of the Lake Tahoe basin, the development of guidelines to assist local governments in dealing with collapse-prone buildings, and cooperative activities with Mexico. He noted that the Nevada Earthquake Safety Council might be able to partner with the Commission on some mutually beneficial research projects. Mr. McCarthy proposed holding a regular Commission meeting, followed by a joint meeting or workshop after the regular meeting. He suggested that the Commission consider postponing its regular July meeting and having an August meeting instead.

Commissioner Strack expressed support for a joint meeting, noting that Nevada could be a potential source or funding for Commission projects. He also observed that emergency access is a critical issue in the event of any kind of disaster in the Tahoe region. He said he liked Mr. McCarthy's suggestion about having a Commission meeting first, followed by a joint meeting.

Commissioner Ken Cooley noted that a joint meeting would provide a good opportunity for the Commission to enhance its visibility with the public. He remarked that Nevada has many problems similar to those in California, including the issue of unreinforced masonry buildings. He recommended that the staff prepare a PowerPoint presentation highlighting the Commission's work and its legacy, and he suggested developing a press release promoting the joint meeting. Chairman Gardner added that many people in California are not aware of the Commission's activities, and he agreed with Commissioner Cooley that a joint meeting would generate favorable publicity and exposure for the Commission.

Ms. Cogan said that the Commission was planning to meet in San Francisco in October to mark the 25<sup>th</sup> anniversary of the Loma Prieta earthquake, so scheduling a joint meeting in November would result in back-to-back out-of-town meetings for the Commission. Commissioner Chet Widom recalled that the Commission had selected October 9 as the date of the San Francisco meeting.

After some discussion, commissioners agreed that August would be a better time for a joint meeting than November. Mr. McCarthy pointed out that the Commission can schedule a teleconference meeting in July if necessary. Senior Engineering Geologist Robert Anderson cautioned that hotel reservations would need to be made well in advance because of limited room availability due to summer vacations, concerts, and the popular Hot August Nights festivities in Reno. Mr. McCarthy indicated that he would contact the Nevada Earthquake Safety Council to confirm the August 13 date and decide on a meeting location.

Commissioner Hellweg suggested that the Commission consider holding joint meetings with similar counterpart organizations in other western states next year.

## **Commission Twitter Account**

Mr. McCarthy reported that he met with Agency representatives the previous week to discuss plans to establish a Seismic Safety Commission Twitter account to promote Commission activities and products.

## **Department of Water Resources Meeting Regarding Subsidence Issues**

Mr. McCarthy said that he, Commissioner Hellweg, and Commissioner Greg Beroza would be attending a meeting that afternoon with representatives of oil and gas companies to discuss subsidence and seismicity issues associated with extraction of oil and geothermal energy from California's Central Valley.

## **Budget**

Legislative and Special Projects Manager Dave King reported that the Commission's financial status was sound. He noted that the Commission had been able to absorb an \$80,000 reduction in this year's budget, but next year will be more challenging.

## **V. EARTHQUAKES AND CALIFORNIA AGRICULTURE: IDENTIFYING AND MEASURING VULNERABILITIES AND POTENTIAL MITIGATION OF LOSSES**

Dr. Daniel Sumner, Agricultural Issues Center, University of California at Davis, summarized the results of the study begun 2013 to investigate the seismic vulnerabilities of various sectors of the agricultural industry in California. He noted that this research project was a joint effort between his staff at the Agricultural Issues Center at UC Davis and Dr. Scott Brandenburg of UCLA. He explained that the goals of the study were to examine the historical background and identify the issues highlighted by the damage to agricultural businesses as a result of the 2010 earthquake near Mexicali. He said the researchers focused on cattle operations in the Imperial Valley, including a meat packing plant in Brawley, crops grown in Monterey County, and the dairy industry in the San Joaquin Valley.

Dr. Sumner reported that Dr. Brandenburg conducted shock tests to determine the fragility of various kinds of equipment and infrastructure used in cattle operations in Imperial County. He said the 2010 Mexicali earthquake caused extensive damage to irrigation facilities, water distribution systems, and canals in both Mexico and the southern part of Imperial County. He noted that cattle are an economically perishable product, so disruption in production, packing, or ports can affect the entire supply chain.

Dr. Sumner explained that Monterey County is a key supplier of perishable salad vegetables and fruits that are transported via Highway 101 to the rest of California and the U.S. He said the researchers estimated the extent of crop losses if a major earthquake occurred during peak growing season as well as off-peak seasons. He observed that Monterey County has many growing seasons throughout the year, a factor that contributes to its resilience. Dr. Sumner stated that the researchers concluded that an earthquake at a peak time would have the greatest impact,

but increased prices due to supply shortages would likely offset crop losses for the county as a whole. He acknowledged that some individual growers would experience severe damage and disruption, but those who escaped significant damage would prosper because they could command higher prices for the crops they produced.

Dr. Sumner advised that although most of California's dairy processing and production facilities are located in the San Joaquin Valley, an area that is not as seismically sensitive as other parts of the state, there are significant vulnerabilities in terms of animal welfare, storage, and transportation. He noted that dairy operations today are largely automated, so damage to vulnerable equipment or the electrical supply could create tremendous problems in terms of milking cows and processing fresh milk.

Dr. Sumner recommended conducting further research on the produce industry, parts of the dairy industry, and the wine industry, noting that these are the three largest agricultural sectors in California.

Chairman Gardner thanked Dr. Sumner for his work and complimented him on the quality and thoroughness of his report. He recommended synthesizing some of the main points in an executive summary. Dr. Sumner responded that he would highlight key parts and create a bulleted summary.

Chairman Gardner proposed appointing an ad hoc committee to work with Dr. Sumner and the staff to finalize his report for approval by the Commission at the May meeting. Commissioner Christina Curry and Commissioner Macari volunteered to serve on the committee. Chairman Gardner asked commissioners to send their comments and suggestions to the committee within the next two weeks. Mr. McCarthy said the staff will solicit feedback from the Agency and the Department of Food and Agriculture as well.

Chairman Gardner thanked Dr. Sumner for his report.

## **VI. SMALL BUSINESS ECONOMIC SURVEY STUDY – FINAL DRAFT**

Ms. Pricilla Lopez, State Chair, California Small Business Development Center Leadership Council, thanked the Commission for providing funding for the Small Business Development Center (SBDC) to investigate and promote small business disaster preparedness. She said the first part of this project involved a survey to identify specific needs of various types of small businesses, and the second part focused on gathering and disseminating best practices and tips to improve disaster preparedness.

Ms. Lopez summarized the results of the small business survey. She said 213 people responded, representing a good mix of different industry sectors. She noted that 49 percent of respondents were sole proprietors, and most were involved in service industries. She observed that 36 percent of respondents indicated that they back up their data on a regular basis, but 18 percent do not. Ms. Lopez commented that many people back up data on servers located at their sites, which could be a problem if earthquakes or other disasters damage their facilities. She said about 48 percent of the businesses reported that they do not carry any form of disaster insurance,

but some do have flood, fire, or earthquake coverage. Ms. Lopez noted that respondents consider man-made disasters their biggest threat, followed by fire, and then earthquakes. She said respondents indicated that the state can help small businesses in disasters by maintaining communications, transportation, and electricity, and by providing funding.

Ms. Lopez reported that the SBDC compiled a best practices manual that will be posted on its Website, and she suggested including a link to this document on the Commission's Website and the GO-Biz Website as well. She said SBDC will follow up with a series of outreach workshops and an awareness campaign, and she noted that SBDC will be bringing a future proposal to the Commission to fund these efforts.

Chairman Gardner expressed his appreciation to SBDC for this impressive study. He said he was not surprised by the results, but was disappointed that so many small businesses remain unprepared for a major disaster.

Commissioner Miyamoto pointed out that California has not experienced any truly major disasters since the 1906 San Francisco earthquake. He noted that many small businesses will be lost if there is a serious event because they will not have sufficient financial resources to sustain themselves. He emphasized the importance of fast and easy access to capital in order to preserve jobs and keep businesses afloat. Ms. Lopez said some small businesses would be eligible for loans from the U.S. Small Business Administration, but state and local governments can also help by providing funds. Commissioner Miyamoto recommended encouraging small businesses to purchase business interruption insurance, and he asked if SBDC had any estimate of their total capital needs. Ms. Lopez responded that SBDC has not quantified overall capital needs. Commissioner Miyamoto advocated studying this issue in more detail.

Chairman Gardner thanked Ms. Lopez for her report. He suggested gathering more input from business people, and recommended establishing a small committee to work with the staff and SBDC to finalize the report for approval at the May meeting. Commissioners Carbajal and Sweiss volunteered to serve as a review committee. Chairman Gardner asked commissioners to forward their comments and recommendations to the staff by April 1.

Mr. McCarthy recommended seeking input from the Agency and GO-Biz. He proposed that the Commission focus first on finishing this report, and then provide guidance on the second phase of the project.

## **VII. DRAFT GUIDEBOOK FOR LOCAL GOVERNMENTS TO MANAGE THE RISKS OF COLLAPSE-PRONE BUILDINGS IN CALIFORNIA**

Mr. Fred Turner, Staff Structural Engineer, reported that after the last meeting, the staff sought outside editing help to update the guidebook from the Institute of Local Governments, the University of California, and California State University, but none of those groups was interested. However, he noted, the Agency recommended Ms. June Vargas, information officer at the Department of Consumer Affairs, as a possible candidate, so the staff has been negotiating for her services. Mr. Turner advised that Ms. Vargas provided samples of similar publications and seems highly qualified to provide the kind of assistance needed; in addition, her office is

close to the Commission's headquarters. He said Ms. Vargas has been very flexible and accommodating, and she offered to develop a rough draft of the first chapter for the Commission to review. Mr. Turner added that contracting with another state agency is much easier for the Commission than an outside bid process.

Mr. Turner said the guidebook is designed to provide information to local governments about various options for dealing with collapse-prone buildings. The document is heavily footnoted, with a detailed table of contents, index, and glossary of terms.

**ACTION:** Commissioner Widom made a motion, seconded by Commissioner Macari, that:

*The Commission publish the guidebook totally electronically.*

Mr. Turner recommended publishing the guidebook in both hard-copy and electronic formats. He noted that printing the document in-house will keep costs at a minimum. Commissioner Goodwin concurred that both hard-copy and electronic versions should be made available.

Commissioner Strack agreed with Mr. Turner that the Commission should offer both formats. He proposed focusing on completing the document, and then deciding on how it should be published. Commissioner Widom noted that the editor needs to know the format in advance. Mr. Turner said Ms. Vargas is able to produce both online and hard-copy versions.

Commissioner Carbajal expressed support for the approach recommended by the staff.

**ACTION:** Commissioner Strack made a substitute motion, seconded by Commissioner Hellweg, that:

*The Commission publish the guidebook in both hard-copy and electronic formats.*

Commissioner Widom and Commissioner Macari agreed to withdraw the original motion and second.

\* Motion carried, 16 – 0.

## **VIII. GLOBAL EARTHQUAKE MODEL PROJECT UPDATE**

Ms. Kate Stillwell, Global Earthquake Model (GEM), thanked the Commission for its sponsorship of GEM. She said GEM will be considering upgrading the Commission to a voting member at its June meeting. She explained that GEM is a public-private partnership with a scientific and humanitarian mission of producing useful tools to reduce earthquake risk worldwide.

Ms. Stillwell reported that GEM is on schedule to release its OpenQuake open-source platform later this year, and she showed examples of how OpenQuake can be used to map earthquake hazards, estimate earthquake fatalities, and predict levels of shaking, damage, and social impacts of earthquakes.

Ms. Stillwell noted that the Commission is sponsoring two projects: “Back to Normal,” a study of the factors that speed up post-earthquake recovery, and “Beyond Button Pushing,” an investigation of the assumptions behind existing risk models. She said a kickoff meeting was held in February to launch “Back to Normal.” She explained that the goal of this project is to identify which specific government policies are most effective in promoting rapid recovery, and one of the end products will be a map-based application.

Commissioner Miyamoto observed that availability of capital is one of the most important factors in economic recovery; he asked how GEM models commercial investment and insurance availability. Ms. Stillwell responded that “Back to Normal” focuses on how fast recovery takes place, not the availability of funds. Commissioner Miyamoto commented that certain government policies have a substantial effect on recovery; he cited earthquake insurance and local versus national government control as important variables. He requested a conference call with the Stanford researchers to discuss these issues. Ms. Stillwell recommended that Commissioner Miyamoto be included on the review panel for this project.

Chairman Gardner thanked Ms. Stillwell for her report.

#### **IX. THE CALIFORNIA EARTHQUAKE AUTHORITY: EDUCATE, MITIGATE, AND INSURE**

Mr. Glenn Pomeroy, Chief Executive Officer, California Earthquake Authority (CEA), provided an update on the CEA’s progress and activities. He explained that California enacted a mandatory offer law in 1984 that required insurance companies to offer earthquake insurance to California homeowners. However, he said, after the Northridge earthquake, many insurers left the market because of the high volume and cost of damage claims. Mr. Pomeroy stated that over half the damage in the Northridge earthquake was to residential structures, which accounted for about 40 percent of the \$23 billion in recovery costs.

Mr. Pomeroy noted that in response to this problem, the California Legislature passed AB 1366 in 1995, and the CEA was created in 1996. He said the CEA is a publicly managed and privately financed program that provides earthquake insurance to homeowners. He reported that the CEA provides 840,000 earthquake insurance policies today, representing about three quarters of all the earthquake policies in California. He advised that the CEA now has the capability to pay twice as many claims as there were after the Northridge earthquake. However, he added, over 90 percent of California homeowners still have no earthquake insurance.

Mr. Pomeroy said the three goals of the CEA’s 2014-16 strategic plan are to educate, mitigate, and insure. He noted the education component includes online information, broadcasting public service announcements, direct mail, and collaborative partnerships with a wide range of private organizations. He invited Ms. Janiele Maffei, Chief Mitigation Officer, to discuss CEA’s mitigation program in more detail.

Ms. Maffei showed a brief video explaining the registration and qualification process for the CEA's brace and bolt program. She said the CEA is completing a pilot project now, and then the program will be expanded statewide.

With respect to the CEA's goal of increasing the number of insured homeowners, Mr. Pomeroy noted that the federal Earthquake Insurance Affordability Act, now pending before Congress, will make earthquake insurance more affordable and valuable to homeowners. On the state level, he said, Commissioner Cooley is sponsoring AB 2064, a bill that would reform California's mandatory offer law. He urged the Commission to pass a motion of support for AB 2064.

Chairman Gardner said the Commission receives regular legislative updates and recommended positions on pending bills, and he asked the staff to include AB 2064 in its legislative report at the next meeting.

Chairman Gardner thanked Mr. Pomeroy and Ms. Maffei for their report.

## **X. CALIFORNIA MULTI-HAZARD MITIGATION PLAN BRIEFING**

Mr. Jose Lora, Chief, Mitigation Division, California Office of Emergency Services (Cal OES), provided an overview of State Multi-Hazard Mitigation Plan (SHMP). He said the SHMP focuses on earthquakes, fires, and floods, the three primary hazards facing California. He explained that the state is required to update its plan every three years, and local jurisdictions must update their plans every five years. He added that jurisdictions that develop enhanced mitigation plans are eligible for additional mitigation funds from the federal government.

Mr. Lora stated that collaboration is the key to the overall planning process. He advised that Cal OES is the lead agency, with 80 partner organizations contributing to this effort. He reported that Cal OES has made significant progress since the last SHMP update, including incorporation of new California Geological Survey and U.S. Geological Survey hazard maps, developing financial incentives for homeowners, and providing a hazard mitigation grant program. He noted that the Concrete Coalition, a trade organization, is working to develop a strategy to mitigate the hazards of non-ductile concrete buildings.

Mr. Lora showed slides illustrating the new MyHazards and MyPlan Websites developed by Cal OES. He explained that the MyPlan Website consolidates different kinds of hazard mapping in one location, helps identify vulnerable state-owned buildings, and provides a range of tools and resources to facilitate implementation of hazard mitigation plans. He added that the Web portal will be revamped by the end of the year to add new features.

Commissioner Knudson asked when projected rises in sea level will be incorporated in the state's mitigation plan. Mr. Lora replied that the staff is working with developers now to add that layer, and their hope is to complete that work by the end of 2014.

Chairman Gardner thanked Mr. Lora for his report.

## **XI. NORTHRIDGE 20 SYMPOSIUM: UPDATE AND NEXT STEPS**

Professor Steve Mahin, Pacific Earthquake Engineering Research (PEER) Center, provided an update on the Northridge 20 Symposium held at UCLA in January. He said over 600 people attended, most of whom are structural engineers, but there were also many emergency managers, people from the financial and insurance sectors, scientists, and state and local government officials at the conference. He noted that the symposium featured a general meeting and panel discussions by policy makers and experts the first day, followed by a series of break-out sessions focusing on particular issues the next day. Professor Mahin identified major sponsors and participating organizations, and he showed slides depicting some of the highlights of the event.

Professor Mahin indicated that the next step will be to develop a summary report with a series of recommendations, and he presented some sample recommendations pertaining to lifelines and utilities, ground motions and ground failure, and business and insurance issues. He said the summary report will include a plan for prioritizing and implementing the recommendations.

Chairman Gardner thanked Professor Mahin for the briefing and expressed support for the concept of developing a summary report with recommendations. He recommended that the Commission review and discuss the recommendations at the May meeting.

## **XII. LEGISLATION**

Mr. King drew attention to his written report for a summary of pending legislation of interest to the Commission. He said the staff is watching AB 1510, a spot bill authorizing use of property taxes to finance retrofit projects; AB 2181 (Bloom), which would mandate inspections and retrofits of non-ductile concrete buildings; SB 1151, pertaining to in-depth seismic studies of geological hazards and modifications to Alquist-Priolo seismic zoning; and SB 1345, which proposes extending some reporting dates, including the deadline for the San Francisco Public Utilities Commission (SFPUC) water improvement project.

Chairman Gardner asked Mr. King to add AB 2064 (Cooley), which would reform the state's mandatory offer laws, to the list of tracked bills.

Mr. McCarthy recommended that the Commission discuss SB 1345 in more detail at the May meeting. He said this proposal would extend the Commission's yearly review of the SFPUC water delivery system project to 2022, seven years after the current deadline of 2015.

Chairman Gardner thanked Mr. King for the update.

## **XIII. PUBLIC COMMENT**

There were no members of the public who wished to address the Commission.

**XIV. GOOD OF THE MEETING**

Commissioner Hellweg advised that Ms. Frannie (Winslow) Edwards, former commissioner and member of the Mineta Transportation Institute at San Jose State University, would like to make a presentation to the Commission about the state’s earthquake early warning system and the high-speed rail project at the July meeting.

Commissioner Sweiss provided an update on recent activities in San Francisco. He noted that San Francisco enacted a soft-story ordinance last year and held an earthquake fair in January as a follow-up. He reported that 3,000 property owners and over 160 vendors attended. He said the city is developing an educational video that he would present at the next meeting.

Commissioner Sweiss indicated that San Francisco is introducing a new ordinance requiring seismic evaluations of the city’s 120 private schools within the next three years. He added that this initiative was in part inspired by Commissioner Miyamoto’s discussion of damage to schools in the Philippines at the last meeting.

**XV. ADJOURN**

There being no further business, the meeting was adjourned at 1:20 p.m.

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Sue Celli  
Office Manager

Approved by:

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Richard McCarthy  
Executive Director