

Summary Report

2022 ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION

Mission: Support the People of California to Reduce Life and Economic Losses from earthquake related disasters.



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Alfred E. Alquist Seismic Safety Commission (SSC)

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Executive Summary

The following annual report provides a brief overview of the projects of the Alfred E. Alquist Seismic Safety Commission (SSC) in 2022. Once the projects are completed, all reports or studies produced are posted on the SSC “publications” webpage at http://ssc.gov/forms_pubs/

The SSC is among the seismic safety resources for the State of California dedicated to reducing earthquake risk for the people of California since 1975. The SSC investigates earthquakes, reports on earthquake-related issues, and evaluates and recommends to the Governor and Legislature policies needed to reduce earthquake risks. Although the SSC has no regulatory authority over earthquake policy, the SSC strives to ensure a coordinated framework for establishing earthquake safety policies and programs in California.

Sincerely,

SSC Executive Director

SSC Vision

Achieve resiliency by providing state, local government and the public with state-of-the-art disaster tools that will reduce losses and expedite recovery.

2022 SSC Staff

Annde Ewertsen, Executive Director
Salina Valencia, Director of Legislation & Communications
Tanya Black, Administrative Processes Manager
Jia Wang-Connelly, Senior Structural Engineer

2022 SSC Commissioners

Name	Area of Expertise
Honorable Cindy Silva, Chair	Local Government
Fuad Sweiss, Vice Chair	Mechanical Engineering
Ida Claire	California State Architect
Honorable Ken Cooley	State Assembly Member
Alegria De La Cruz	Social Services
Honorable Debra Garnes	Local Government
Mark Ghilarducci	California Governor Offices of Emergency Services
Joone Kim-Lopez	Public Utilities
Mia Marvelli	California Building Standards Commission
Kevin McGowan	Emergency Services
Dr. H. Kit Miyamoto	Structural Engineer
Honorable Anthony Portantino	State Senator
Honorable David Rabbitt	Local Government
Andrew Tran	Insurance
Vincent Wells	Fire Protection

Authority & Statue

The SSC was established in 1975 to advise the Governor, Legislature, state and local agencies, and the public about strategies to reduce earthquake risk (Government Code §8870, et seq.).

The SSC is a department within the Office of Emergency Services (Cal OES). In coordination with Cal OES, SSC offers a broad perspective of the overall seismic risk to the state, sets consistent policies and goals without regard to political agendas and makes independent findings and recommendations without agency bias or repercussions.

The SSC investigates earthquake-related issues and evaluates and recommends to the Governor and Legislature policies and programs needed to reduce earthquake risk.

To ensure a coordinated framework for establishing earthquake safety policies and programs in California, the SSC uses the expertise of its members, experienced in earthquake-related fields, to review, evaluate, and translate scientific information and make recommendations to guide and influence earthquake safety policies.

The SSC assists in the state's mitigation efforts through collaboration with Cal OES and stakeholders. The SSC responds after earthquakes to gather information and recommends policy changes based on lessons learned.

The SSC does not have regulatory authority over any specific programs or agencies, but it is empowered with quasi-judicial and investigative powers to examine and conduct studies on seismic safety policies and programs across lines of governments and the private sector.

The SSC is composed of 15 Commissioners: 10 appointed by the Governor, with expertise in earthquake or disaster-related fields; 1 legislative member from each of the California State Senate and the California State Assembly; and 3 Commissioners representing the Governor's Office of Emergency Services, the Division of State Architect, and the Building Standards Commission. The SSC is supported by 6.0 staff members.

Financial Summary

The following provides background information on the SSC's various funding sources.

Insurance Fund

California Insurance Code (CIC) section 12975.9 established the Seismic Safety Account as a special account within the Insurance Fund to, upon appropriation by the Legislature, fund Cal OES, SSC and the California Department of Insurance (CDI). The Seismic Safety assessment is imposed on each person who owns real property, commercial or residential, that is covered by a property insurance policy. CDI calculates the assessment annually every August 1 for all commercial and residential earned property exposures reported during the previous calendar year. Pursuant to CIC section 12975.9(b), the annual assessment shall be based upon the number of earned property exposures from both commercial and residential insurance policies, the amount required for the support of the SSC, the actual collection and administrative costs of CDI, and the maintenance of an adequate reserve, but shall not exceed fifteen cents (\$0.15) per earned property exposure.

General Fund

As part of the state's broader preparedness efforts, the SSC was transferred to Cal OES through the Governor's Budget. The Budget Act of 2021-22 allocated General Fund funding to the SSC to support the transfer. The transfer has increased the coordination efforts between SSC and Cal OES, along with other components of the state's multi-hazard strategy, earthquake preparedness, and broader distribution of seismic safety policies and recommendations.

Gift Agreement, California Research and Assistance Fund (CRAF)

In August of 2007, the SSC was awarded a one-time allocation of funds, in the form of a Gift Agreement, from the California Research and Assistance Fund (CRAF). The CRAF funds the SSC research and education projects. As outlined in the CRAF Gift Agreement, the SSC is entitled to collect up to 10 percent overhead expenses for contracts awarded through the fund. Recipients of these funds develop products for the SSC and have an overhead limit of 25 percent. This fund is currently active.

Contract with the California Public Utilities Commission (CPUC)

Upon request, the SSC also receives reimbursement from the California Public Utilities Commission (CPUC). Pursuant to Assembly Bill No. 361, approved by the Governor, and under the California Emergency Services Act, the CPUC created an independent disaster council for the purposes of planning activities related to initial and subsequent

assessments of the Diablo Canyon nuclear power plant site. These assessments include the investigation and interpretation of environmental factors such as seismic safety. The Independent Peer Review Panel (IPRP) comprises the following: SSC, the Energy Commission, the California Geological Survey of the Department of Conservation, the California Coastal Commission, Cal OES, and the County of San Luis Obispo.

SSC Operating Budget Fiscal Year 2021-2022

Seismic Safety Assessment Revenue	1,314,000
General Fund	351,000
California Public Utilities Commission	15,000
California Research and Assistance Fund	700,000

Projects

Review of Project Delays for the San Francisco Public Utilities Water System Improvement Program

Pursuant to Water Code Section 73502. Assembly Bill 1823 Regional water systems enacted the Wholesale Regional Water System Security and Reliability Act, which required the County and City of San Francisco Public Utilities Commission (SFPUC) to adopt a specified program of capital improvement projects designed to restore and improve the Bay Area regional water system that delivers water from the Hetch Hetchy Reservoir in Yosemite. Within 90 days of receiving a notice of project deletions or delays for the program, the Seismic Safety Commission and the State Department of Public Health are to submit to the Joint Legislative Audit Committee written comments about the significance of the changes with respect to public health and safety.

SSC reviewed “Wholesale Regional Water System Security and Reliability Act 2022 Notice of Changes to the San Francisco Public Utilities Commission Water System Improvement Program” dated August 19, 2022 and “Fiscal Year (FY) 2021-2022 Annual Report Water System Improvement Program San Francisco Public Utilities Commission” dated September 1, 2022. The Annual Report for the Fiscal Year 2021-2022 revealed, overall completion of the program’s construction of this \$4.8 billion project is at 98.6%, reduced from 98.9% due to extension of the project and program schedules. However, all projects with Seismic Reliability as primary or secondary Level of Service (LOS) goal have been 100% completed.

As of June 30, 2022, the overall Water System Improvement Program (WSIP) is forecast to be complete on February 1, 2027.

Independent Peer Review Panel for Diablo Canyon Nuclear Power Plant

The SSC and many other state organizations assisted the California Energy Commission in the development of a report in response to AB 1632 (Blakeslee) in 2008. The legislation directed PG&E to use advanced three-dimensional seismic surveying and other methods to try to reduce the uncertainty regarding the plant’s seismic hazards. In 2011, the California Public Utilities Commission (CPUC) created an Independent Peer Review Panel (IPRP) consisting of the CPUC, the SSC, the California Geological Survey, the California Energy Commission, the California Coastal Commission, and a representative from the County of San Luis Obispo. The IPRP has been reviewing and meeting as warranted with personnel from PG&E and various interveners since 2011.

With the pending extension of Diablo Canyon under SB 846, IPRP will review the report of "findings and recommendations for improved safety" by Diablo Canyon Independent Safety Committee (DCISC) in 2022. [(Public Utilities Code sec. 712.1(e)(1) &(2)]

This project is still in progress.

AB 100: Annual Reporting Requirement of the Seismic Safety Commission (SSC)

Assembly Bill 100 (Committee on Budget), enacted as Chapter 20 of the Statutes of 2020 transferred the SSC to Cal OES, and established an annual reporting requirement of the SSC. The Legislature finds that numerous agencies at various levels of government have substantial responsibilities in the fields of earthquake preparedness and seismic safety. To provide a consistent policy framework to track and monitor those activities and to identify key activities and responsibilities related to seismic safety the SSC is requiring entities participate in the annual reporting requirement. The purpose of this reporting is to illustrate how the State has developed multiple seismic safety risk reduction and recovery programs. Improved descriptions of what entities have been doing to reduce seismic risk will lead to a better understanding and improved cooperation between State departments, local governments, universities, and private industry.

In 2022, the SSC received a report from the California Earthquake Authority.

This project is ongoing.

Earthquake and Fire Following Earthquake Resilience of Mid-Rise Cold-Form Steel (CFS) Buildings with the University of California of San Diego (UCSD)

The SSC, Cal OES and UCSD agreed to partner to improve the understanding of CFS framed mid-rise building systems under earthquake and post-earthquake fire conditions. Central to this effort is the earthquake testing, post-earthquake repair, earthquake re-testing and finally live fire testing of a CFS 10-story building constructed on the UCSD large high-performance outdoor shake table. Through the shaking, implementation of repair strategies and fire test, the project team will facilitate an understanding of the performance, recovery time and hence the resiliency of these types of buildings when subject to earthquake and live fire scenarios.

The contract was executed on March 9, 2022. The project is delayed but still in progress.

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