# 2023 Annual Report





#### Alfred E. Alquist Seismic Safety Commission (SSC)

Improving the seismic safety and resiliency of California communities by providing resources and guidance, facilitating research, and fostering collaboration in earthquake preparedness, mitigation, and recovery.

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#### Introduction

The Alfred E. Alquist Seismic Safety Commission (SSC) is pleased to present its 2023 annual report as required by Government Code §8589.75. The commission shall report annually to the Governor and Legislature on its findings, progress, and recommendations related to activities of the commission and the state toward higher levels of seismic safety and any other seismic safety issues. This report provides a brief overview of the SSC projects in 2023. Once projects are completed, all reports or studies are posted on the SSC "publications" website at https://ssc.ca.gov/forms\_pubs/.

The SSC is an important seismic safety resource for the State of California dedicated to reducing earthquake risk for the people of California since 1975. The SSC improves the seismic safety and resiliency of California communities by providing resources and guidance, facilitating research, and fostering collaboration in earthquake preparedness, mitigation, and recovery. The SSC strives to ensure a coordinated framework for establishing earthquake safety policies and programs in California.

Sincerely,

Annde Ewertsen

Annde Ewertsen, Executive Director

#### SSC Vision

A California that is prepared for, safe from, and resilient to seismic hazards.

#### SSC Staff

Annde Ewertsen, Executive Director Tanya Black, Administrative Processes Manager Jia Wang-Connelly, Senior Structural Engineer Trinity Gleckler, Program Analyst Christopher Lozano, Program Analyst





#### SSC Commissioners, as of December 31, 2023

Honorable Cindy Silva Honorable Freddie Rodriguez Alternate: Stephanie Nguyen

Ida A. Clair

Alternate: Diane Gould Alegría De La Cruz Honorable Debra Garnes

Joone Kim-Lopez Kevin McGowan Dr. H. Kit Miyamoto

Honorable Anthony Portantino Honorable David Rabbitt

Nancy Ward

Alternate: Lori Nezhura

Vincent Wells

Irina Brauzman, Representative

Vacant Vacant Chair, Local Government Vice Chair, CA State Assembly

CA Division of State Architect

Social Services Local Government

Public Utility

Emergency Services Structural Engineer CA State Senate Local Government

CA Governor's Office of Emergency Services

Fire Protection

CA Building Standards Commission

Planning Insurance





#### Seismic Safety Commission Background

The SSC was established in 1975 to advise the Governor, Legislature, state and local agencies, and the public about strategies to reduce earthquake risk. In 2020, the SSC became a unit within the Office of Emergency Services (Cal OES) (Government Code §8589.71, et seq.).

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 is composed of 15 Commissioners: 10 appointed by the Governor, with expertise in earthquake or disaster-related fields or local government; 1 legislative member each from 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 SSC and the California Department of Insurance (CDI). The Seismic Safety assessment is imposed on each person who owns real property, commercial or residential, 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 reorganized under Cal OES as set forth in the Government Code Section 8589.71. The Budget Act of 2021-22 allocated General Fund to the SSC to support the reorganization. The reorganization 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.

#### California Research and Assistance Fund

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 SSC research and education projects. As outlined in the CRAF Gift Agreement, the SSC is entitled to collect up to 10 percent of 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)

The SSC contracts with the CPUC as an Independent Peer Review Panel (IPRP). Pursuant to Section 712 of the Public Utilities Code, the CPUC created an independent disaster council (members include: SSC, the Energy Commission, California Geological Survey of the Department of Conservation, California Coastal Commission, Cal OES, and County of San Luis Obispo) for the planning activities related to initial and subsequent assessments of the Diablo Canyon Power Plant (nuclear) site. These assessments include the investigation and interpretation of environmental factors such as seismic safety. IPRP activities are further discussed on pages 8-9.

#### SSC Operating Budget Fiscal Year 2022-2023

Insurance Fund—Seismic Safety Account	\$1,349,999
General Fund	\$269,000
California Research and Assistance Fund	\$700,000
California Public Utilities Commission	\$15,000





#### **Projects**

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

Pursuant to Water Code Section 73502, the Wholesale Regional Water System Security and Reliability Act, 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. With any notice of project deletions or delays for the program, the State Water Resources Control Board and the SSC shall each submit written comments to the City of San Francisco and the Joint Legislative Audit Committee, about the significance of the changes with respect to public health and safety, no later than 120 days after the date of notice of that change. SSC reviewed the "Fiscal Year (FY) 2022-2023 Annual Report Water System Improvement Program San Francisco Public Utilities Commission" dated September 1, 2023. It indicated the \$4.8 billion construction program is 98.9% complete. All projects with seismic reliability with either a primary or secondary Level of Service (LOS) goal are 100% complete.

As of July 30, 2023, the overall Water System Improvement Program (WSIP) is forecast to be completed on February 1, 2027.

### Independent Peer Review Panel for Diablo Canyon Nuclear Power Plant

The Independent Peer Review Panel (IPRP) was established by the California Public Utilities Commission (CPUC) in 2010. It was tasked with providing expertise to the CPUC while also assuring the public that Diablo Canyon Power Plant (DCPP) seismic studies were being performed appropriately. Members of the IPRP include representatives from CPUC, California Energy Commission, California Coastal Commission (CCC), Cal OES, California Geological Survey (CGS), SSC, and County of San Louis Obispo (SLO).

Under Senate Bill 846 (SB 846) of 2022, the IPRP was tasked with reviewing the seismic assessment for the Diablo Canyon Power Plant (DCPP) in a consulting role for the Diablo Canyon Independent Safety Committee (DCISC) (see Public Utilities Code § 712.1(e)(1)).





In February 2023, the DCISC approved its Fact-Finding Team (FFT) reports covering the last quarter of calendar year 2022 and their DCPP visits on January 31, 2023 and February 1, 2023. Several key issues were covered in the FFT reports including a seismic safety review report for DCPP. In accordance with Public Utilities Code § 712.1(e)(1) as part of its consulting role under SB 846, the IPRP submitted and published the comments to the DCISC for its consideration<sup>1</sup>.

The seismic study of DCPP required by SB 846 (2022) is ongoing. This project is in progress.

#### **Annual Reporting Requirement of the Seismic Safety Commission**

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. The Legislature finds that numerous agencies at various levels of government have substantial responsibilities in the fields of earthquake preparedness and seismic safety.

In 2023, the SSC received reports from:

- California Energy Commission
- California Public Utilities Commission
- California State Architect
- California Department of Water Resources
- California Department of Education
- California Department of General Services—Office of Public-School Construction

As an annual reporting requirement, 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 entered into a contract on March 9, 2022, and agreed to partner to improve the understanding of mid-rise CFS-framed building systems under earthquake and post-earthquake fire conditions. Central to this

<sup>&</sup>lt;sup>1</sup> https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/electric-costs/diablo-canyon-independent-peer-review-panel-reports/20230505dcisc-irp-comments-on-february-report.pdf





effort is the earthquake testing, post-earthquake repair, earthquake re-testing, and 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 resiliency of these types of buildings when subject to earthquake and live-fire scenarios.

The project is delayed because projects on the shake table scheduled before this project are behind schedule. The project is anticipated to begin in Summer 2024.





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