



# Background on the California Seismic Safety Commission

**Fred Turner, SE**

**CA Seismic Safety Commission**

A Government Public Policy Advisory Group



# Alfred E. Alquist California Seismic Safety Commission



- Multi-disciplinary, 20 Commissioners
- Volunteers with 5 paid support staff
- Public Policy Advice
- Independent Reviews
- Research & Learning from Earthquakes
- Sponsor Earthquake Legislation

[www.seismic.ca.gov](http://www.seismic.ca.gov)



# Disciplines on the CSSC

- Local Government (4)
- Senate (1)
- Assembly (1)
- Gov't Building Official (1)
- CA Emergency Management Agency (1)
- CA Building Standards Commission (1)
- CA State Architect (1)
- Architecture, Planning, Fire Protection, Utilities, Electrical Engineering, Mechanical Engineering (4)
- Structural Engineering, Geotechnical Engineering, Geology, Seismology (4)
- Insurance, Social Services, Emergency Services (2)



# Agenda for CSSC on 10 Nov

- Shake Table Research & Fire Following Earthquakes
- Review of a Water System Improvement Program (US\$4.6 Billion)
- Review of Nuclear Power Plant hazards
- Restoring CA's Commerce after Earthquakes
- Statewide Drop, Cover and Hold On Drill
- Seismic Retrofits for Public Schools
- Enhancing CalEMA's Safety Assessment Program, Barricading & Stabilization Practices
- Survey of Hospital Personnel, Post-EQ Evacuations



# Major CSSC Accomplishments

- Risk Management Programs – URM's, hospitals, schools, bridges, dams ...
- Public Awareness Campaigns
- Financial Incentives
- Financing for major capital outlays
- Independent Review Policies
- Research and Development

# Similarities Between CA and NZ



## NZ

- 1931 Napier EQ
- 269,000 Square km
- 4.3 million people

## CA

- 1933 Long Beach EQ
- 424,000 Square km
- 38 million people

- 
- Population Growth from mid 1800's
  - Similar Building Stock – Predominantly Wood, Older Commercial URM buildings
  - Active Earthquake Engineering Practices
  - Enforcement of Building Standards
  - Cross-pollinating academics and practitioners
  - High to moderate seismicity

# Unreinforced Masonry Building Law in California



- State Law Enacted in 1986
- Only URM buildings in High Seismic Regions
- 25,945 Unreinforced Masonry Buildings
- 283 Jurisdictions with URM's
- 70% Mitigated – 18,144 Bldgs
  - 55% Retrofitted – 14,203 “
  - 15% Demolished – 3,941 “
- 7,801 buildings remained unretrofitted as of 2006

# Unreinforced Masonry Building Law in California



- Section 8875 Government Code  
[www.leginfo.ca.gov](http://www.leginfo.ca.gov)
- Three Requirements for Local Governments
  - Inventory URM Buildings
  - Establish Loss Reduction Programs Tailored to Local Government Discretion
  - Report Progress to the CSSC





# Four Types of URM Programs

- Mandatory - 75% Bldgs, 52% Govts, 87% Ret/Dem
- Voluntary - 5% Bldgs, 15% Govts, 24% Ret/Dem
- Notification - 6% Bldgs, 18% Govts, 13% Ret/Dem
- Other Types-14% Bldgs, 15% Govts, 26% Ret/Dem
  
- No Programs –2% Bldgs, 8% Govts, 31% Ret/Dem

