

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

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California Geological Survey

Surface Fault Displacement Hazard Workshop

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Photo by W. Bryant

The 1971 Mw 6.6 San Fernando earthquake was associated with surface fault rupture that damaged or destroyed many structures.



Photo by E. Hart

**The Alquist-Priolo (AP) Act
was enacted in 1972 following the earthquake.**

Alquist-Priolo Act

The intent of the Alquist-Priolo Act is to prohibit the location of developments and structures for human occupancy across the trace of active fault, thus avoiding the hazard of surface fault rupture.



1992 Mw 7.3 Landers Earthquake

Photo by W. Bryant

Alquist-Priolo Earthquake Fault Zoning Act of 1972

Earthquake Fault Zones encompass hazardous faults, which are defined as those faults that are sufficiently active and well-defined

Sufficiently active - faults that exhibit evidence of Holocene displacement (approx. last 11,000 years)

Well-defined - trace detectable by trained geologist

Surface Fault Rupture Usually Occurs Along Pre-Existing Faults

San Andreas Fault - Wallace Creek

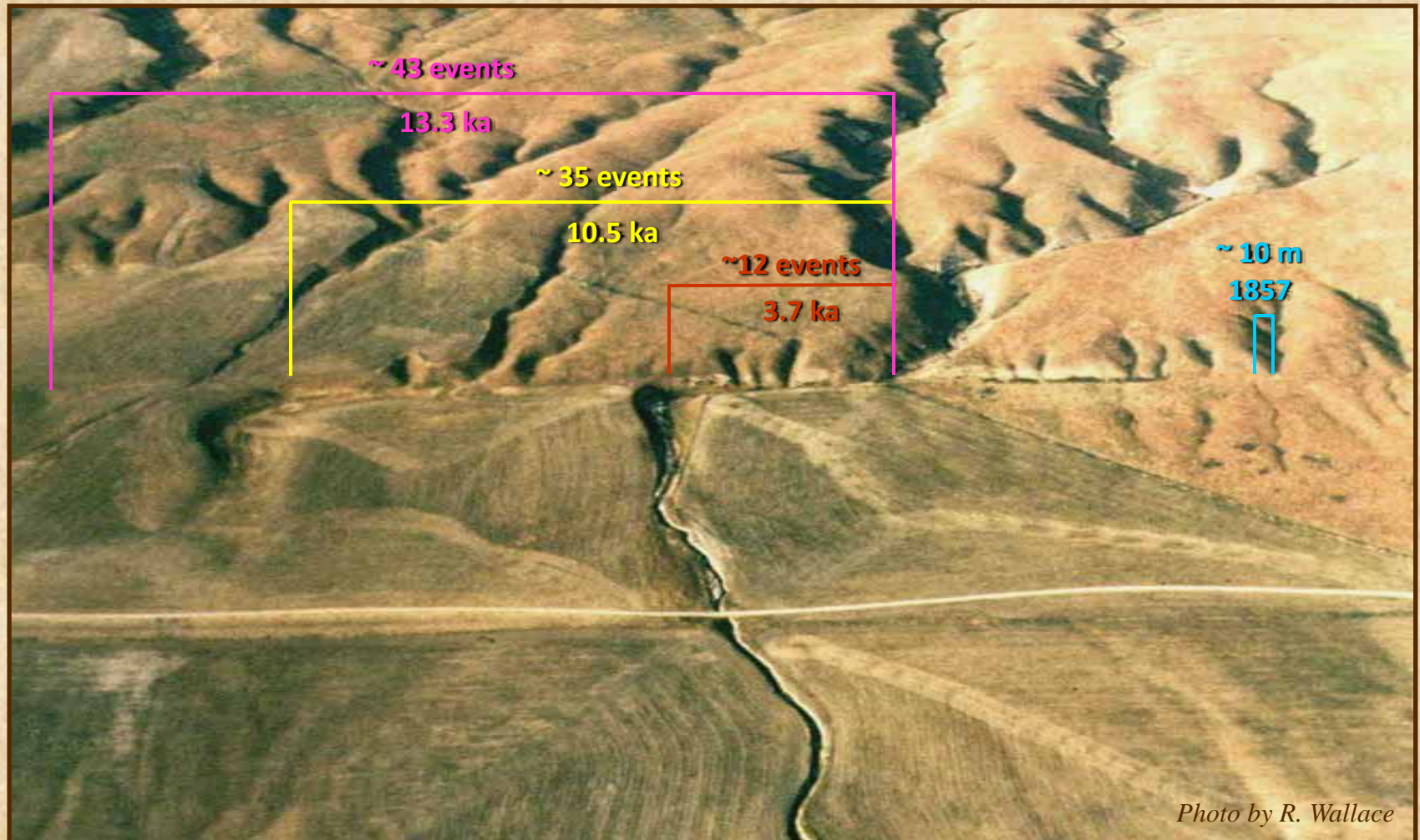


Photo by R. Wallace

ALQUIST-PRIOLO ACT

- RESPONSIBILITIES -

STATE GEOLOGIST

- Zones -

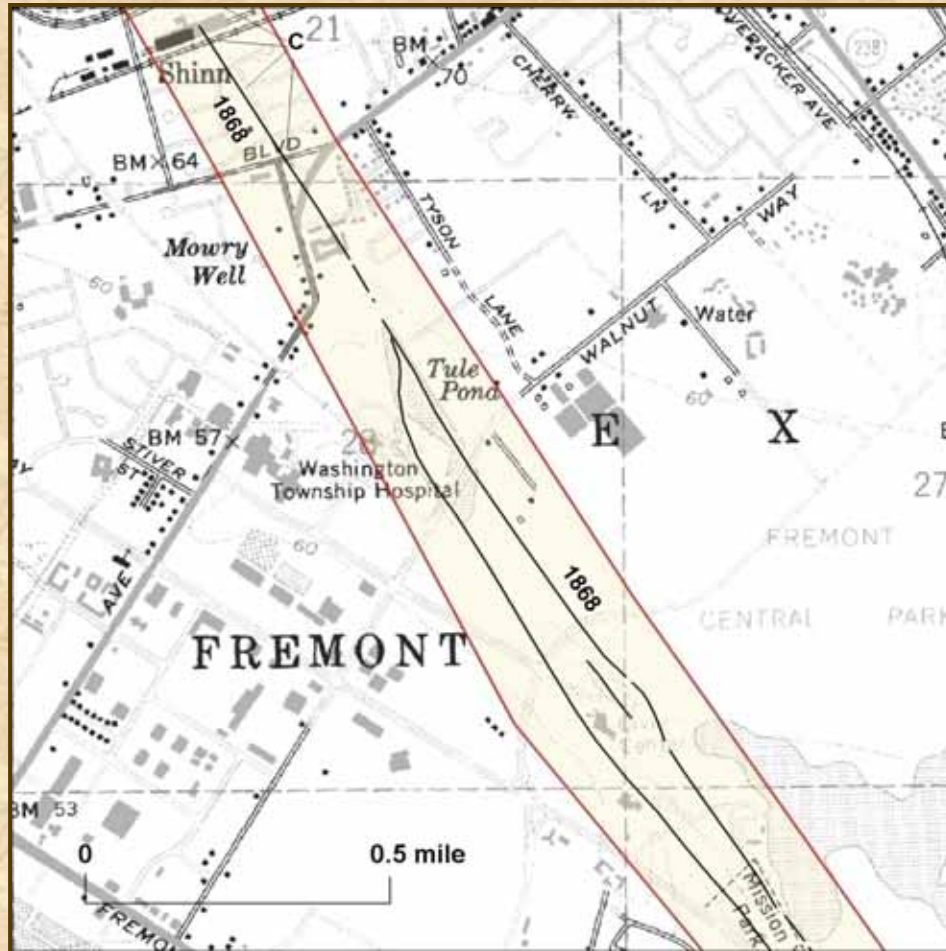
MINING & GEOLOGY BOARD

- Sets Policies & Criteria -

AFFECTED LEAD AGENCIES

- Implements -

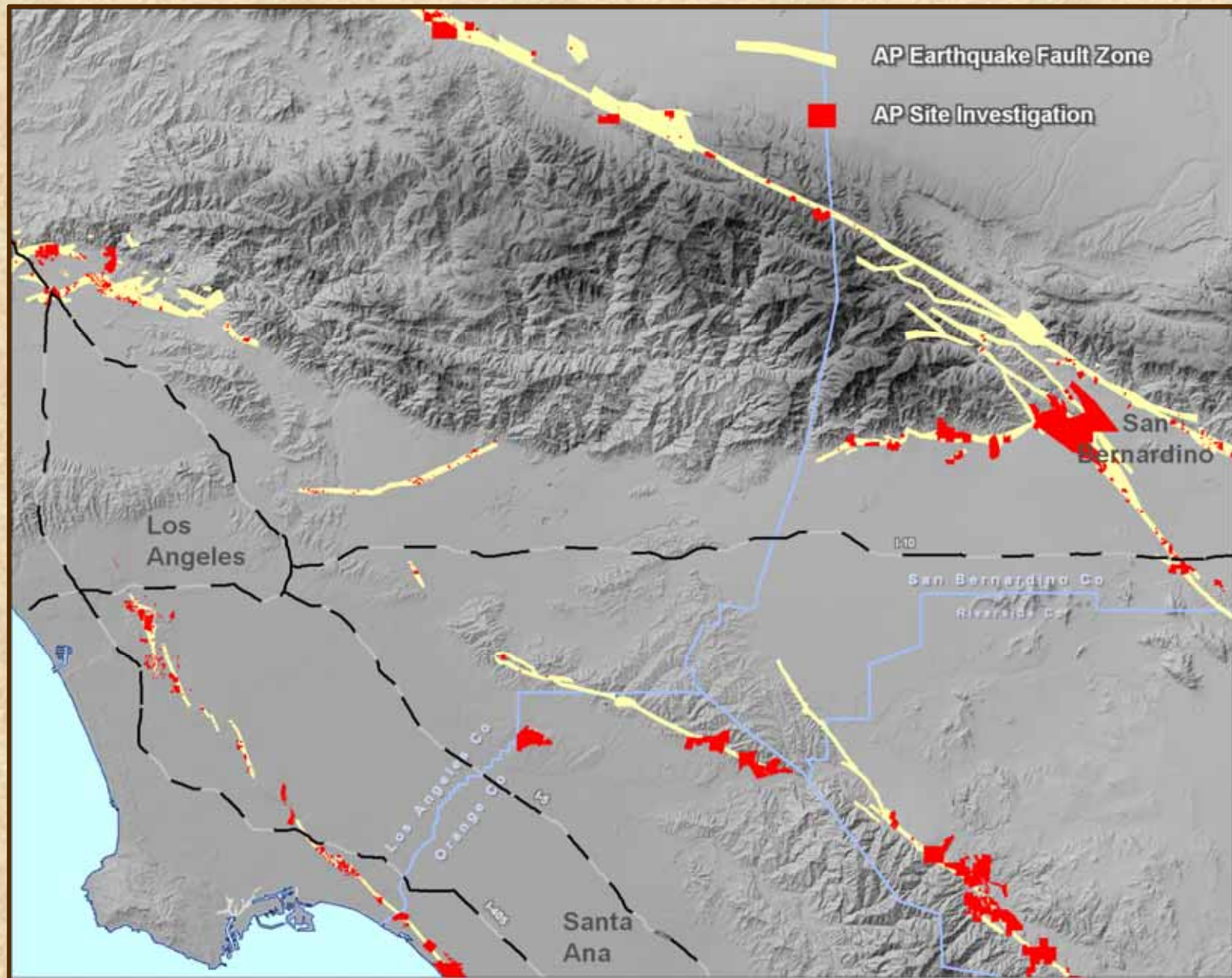
Earthquake Fault Zones



Earthquake Fault Zones are regulatory zones encompassing faults meeting the zoning criteria of sufficiently active and well-defined.

Zone boundaries generally are located 500 feet away from active faults in order to accommodate imprecise locations of faults and the possible existence of active branches.

Over 4500 Site Investigations Filed With CGS



Site-Specific Investigation

The objective of a site specific investigation is to ensure that structures for human occupancy will not be located across active faults.

To accomplish this, the investigation should accurately locate active fault traces and recommend appropriately wide setbacks.

Setback

A setback, or no build zone, is delineated around active faults located during the site investigation to allow an appropriate level of conservatism or factor of safety. The width of a setback zone allows for the occurrence of near-fault deformation and the inherent uncertainties of projecting the location of the fault between known data points.

Setback from active fault as generally applied is 50 feet. The current California Code of Regulations (sec 3603a) states:

“...as the area within 50 feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report prepared as specified Section 3603(d) of this subchapter, no such structures shall be permitted in this area.”

As currently written, there is no minimum distance. However, SMGB initially stated that 50 feet represented minimum standard. This remained in policies and criteria until 1984.



Application of the AP Act - Site Investigation in Pacifica

Proposed Development Pacifica



0 200 400 feet

San Andreas Fault
Zone



Site Investigation

- Blue Lines — Site Boundary
- Green Lines — Trench Locations
- Red Lines — Active Faults

0 200 400 feet



Site Investigation

- Blue Lines** — **Site Boundary**
- Green Lines** — **Trench Locations**
- Red Lines** — **Active Faults**

0 200 400 feet



Building Locations



City of Camarillo

City of Camarillo appealed to State Mining and Geology Board in late 2006, specifically with respect to:

- Presumption of activity of faults within an EFZ**
- Setback width**
- Fault rupture hazard mitigation**

As a result of that appeal, a Technical Advisory Committee was assembled in order to review the State Mining and Geology Board's policies and criteria to clarify and possibly update regulations.

