

## Workshop Location



Orange County Water District  
18700 Ward Street  
Fountain Valley, CA 92708  
[www.ocwd.com](http://www.ocwd.com)

**Friday May 10, 2013**  
8:00 – 9:00 Reg. & Social  
9:00 – 12:30 Presentations  
1:00 – 2:30 Presentations  
2:45 – 4:30 Discussions

This Workshop focuses on the latest geotechnical and structural engineering concepts to mitigate surface fault rupture. The interdisciplinary forum allows the participants to go beyond the current regulatory restriction of total fault avoidance regardless of site-specific procedures now available to mitigate risk to life and property.

## Registration Information

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Name

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Affiliation

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Address

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City, State, Zip

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Email

- Mail check for \$85, payable to AEG, to: Eldon Gath, c/o Earth Consultants Int., 1642 E. 4<sup>th</sup> St., Santa Ana, CA 92701
- Space-available registrations at the door will be \$100. These cannot be assured and lunch may not be provided.
- The event is limited to 100 people.
- A sandwich lunch and drinks will be provided.

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Contact Eldon Gath for further information: 714-412-2653 or [gath@earthconsultants.com](mailto:gath@earthconsultants.com)

## Surface Fault Rupture



**New Mitigation  
Concepts and  
Political Challenges**

AEG • ASCE • EERI

A Knowledge and  
Technology Transfer  
Workshop

**May 10, 2013**



## Speakers (partial list)

**Moderators:** Dr. Roy Shlemon and Eldon Gath

**Keynote Speaker:** Dr. Jonathan Bray – UC Berkeley, 2012  
SSA/EERI Joyner Lecturer

**Craig Comartin** – CDComartin, Inc.

**Alan Kropp** – Alan Kropp & Assoc.

**Dr. Roy Shlemon** – Roy J. Shlemon & Assoc.

**Dr. Thomas Rockwell** – SDSU & Earth Consultants International

**Charles Nestle** – County of Los Angeles, Dept. of Public Works

**Other invitees.**

**Panel Discussion and Attendee participation encouraged**

**Who Should Attend:** Geologists, Engineers, Architects, City Planners, Attorneys, Agency Regulators and others concerned with California seismic hazards and with improving the public's health, safety and welfare.

## Fault rupture is only ground deformation along discrete or dispersed surfaces – does the structure care why the ground moved?

Surface fault rupture is defined as a hazard in California under the 1972 Alquist-Priolo Act that was passed in response to the 1971 San Fernando earthquake to regulate future development within active fault zones. Although the Act has been amended 11 times, and had its name changed from “Special Studies Zones Act” to “Earthquake Fault Zoning Act” in 1994, the technical intent of the Act has never been challenged: i.e. *“prohibit the location of developments and structures for human occupancy across the trace of active faults”* (CA 2621.5). As such, the A-P Act's only permitted mitigation is the total avoidance of the hazard.

In the past 40 years since the passage of the A-P Act, the geologic understanding of fault rupture has greatly improved by use of paleoseismic trenching, by earthquake field investigations, and by new generations of geologists completing thousands of fault studies. Today it is possible to

quantitatively and temporally determine fault hazards at a resolution that was totally unknown in 1971.

Geotechnical and structural engineering practice has also matured significantly since 1971, and today provide a technical basis for mitigation of surface fault displacements unavailable when the A-P Act was written. Indeed, the CA Seismic Hazards Mapping Act requires the mitigation of slope and liquefaction-induced displacements that often exceed fault rupture displacements!

This conference will bring together developers, planners, engineers, geologists, and regulators to examine the fault rupture mitigation issue from all angles, and perhaps develop consensus for a 12<sup>th</sup> amendment to the Act.

Please participate, contribute, and benefit.