

MCEER 2005 ANNUAL MEETING

Rancho Cordova, CA

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Are Hospitals in California Costing Too Much to Build and Retrofit?

Marshall Lew, Ph.D., G.E.



California Hospitals

- ❑ All hospitals must be compliant with the requirements of SB 1953 by year 2030
- ❑ Many of California's hospitals will require complete replacement
- ❑ Estimates for this work exceed \$40 billion
- ❑ This is an unfunded mandate
- ❑ Many hospital facilities are financially challenged

California Hospitals

- ❑ Structural evaluations indicate that liquefaction is the most significant seismic hazard (other than ground shaking) affecting California hospitals

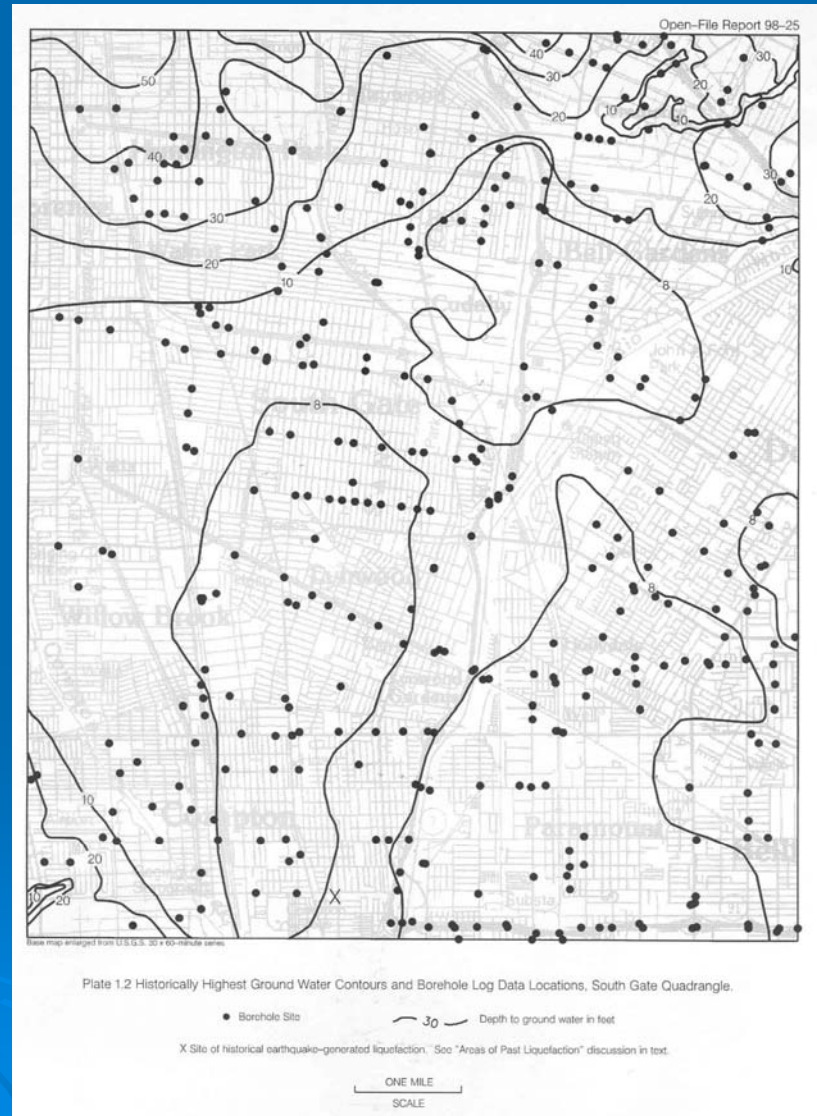
California Hospitals

- The method of evaluation for liquefaction can have a very large impact on the design of hospitals
 - Design ground motions
 - Design ground-water level



California Hospitals

- State of California
Historic High Ground-
water Levels



California Hospitals

- ❑ Example in Downey, CA
- ❑ In Liquefaction Hazard Zone
- ❑ Historic High Ground-water Level at 8 feet
- ❑ Current Ground-water Level is at 58 feet below the ground surface
- ❑ For design purposes (for foundations and evaluation of liquefaction) – must use Historic High Ground-water level