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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 Liquefaction Hazard Zones
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 below the ground surface
- 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