

Representative Quaternary Geology Experience

Liquefaction Susceptibility, St. Louis, Missouri

- Mapping Quaternary geologic deposits from aerial photographs for three 7.5' quadrangles in metropolitan St. Louis area
- Compiling borehole and historic high groundwater elevations for development of surface contour maps
- Developing a liquefaction susceptibility map based on geologic, hydrologic, and geotechnical parameters

Alluvial Fan Mapping and Assessment, Central Valley, California

- Mapping Quaternary and recent alluvial fan deposits for a 400+ km² fan system
- Interpreting historic and recent aerial photographs and field reconnaissance, and incorporation of data to GIS
- Assessing the current condition of the fan area with respect to land use, soil and water resources, for the development of Best Management Practice (BMP) recommendations

Quaternary Deposit Mapping, Los Cordovas Quadrangle, Northern New Mexico

- Mapped Quaternary geologic deposits from aerial photographs; including basalt flows, fault scarps, alluvial fans and fluvial terraces

Fault Investigation, San Francisco Bay Area, California

- Collected and compiled information for geologic borehole database from multiple sources
- Created structure contour model of contacts across site area
- Developed geologic cross-sections to interpret subsurface geometry of units for investigation of vertical offsets potentially due to faulting

Geologic Site Characterization, Diablo Canyon, California

- Developed multiple-intersection geologic cross-sections to characterize subsurface geologic conditions for a proposed radioactive waste facility
- Created stratigraphic/structural model of clay layers to assess stability of planned foundation excavation site

Environmental Impact Statement Review, San Francisco Bay Area, California

- Assessed potential geologic impacts to a proposed development site, and provided recommended mitigation measures
- Reviewed existing documentation for adequacy and completeness based on site conditions
- Provided written report on the seismic, soils, and slope stability hazards