## **CE 295 - RESEARCH SEMINARS IN STRUCTURAL & GEOTECHNICAL ENGINEERING**

## Dynamic Shake Testing of a Model Levee on Peaty Organic Soil in the Sacramento-SanJoaquin Delta

Date: Thursday, March 6<sup>th</sup>, 2014 Time: 4:00 – 4:50 pm Room: EG - 3161 (Small Conference Room)

Guest Speaker: (Dr.) Ted Reinert, PhD Defense Presentation (UCLA)

## Abstract:

Understanding the level of seismic risks facing the Sacramento-San Joaquin Delta is of national concern given the country's two largest water diversion systems are located in the southern portion of the estuary. Recent studies of seismic risk in the Delta indicate that a moderate earthquake in the region could cause multiple simultaneous levee breaches that would flood Delta "islands" and draw in saline water from the west, thereby halting delivery. These studies focused primarily on the seismic response of liquefiable sands and silts within and beneath the Delta levees, which is widely acknowledged by experts as being a significant problem. However, most Delta levees are founded on peat soil, often in combination with sandy soils, and much less is currently understood about the seismic deformation potential of peat.



Aerial photo of the 2004 Jones Tract failure. (Lund et al. 2007)