



# UCSB and HPWREN

Permanently Instrumented Field Sites  
Geotechnical Earthquake Engineering and  
Seismology Research

# Two NEES Field Sites (GVDA)

HPWREN

Communications provided Web-cast capability for this Grand Opening of the NEES field site at Garner Valley, CA in August of 2004.

A Series of demonstrations introduced southland high school students and teachers to earthquake engineering research.



# Two NEES Field Sites (WLA)

The Wildlife Liquefaction Array located in Imperial Valley, CA along the Alamo river.

The remote site transmits continuous data in real-time to the HPWREN backbone located 95km away. The site is run completely from solar power.



# UCSB Borrego Valley Array

Over \$2M invested by Kajima Co. Japan to construct and perform site characterization studies in early 1990's.

Facility donated to the UCSB Geotechnical Array program in 2000.

Connected to HPWREN in 2003.



# Superstition Mountain



HPWREN / NEES / USGS  
Collaboration



Repeater Station connects remote sites to HPWREN:

- NEES WLA site,
- Continuous GPS stations
- USGS strong motion station located at the site in the building shown at left.