# Multi-Hazards Post-Event Reconnaissance

Jon Bray, Roger Borchardt, John Christian, Jeff Keaton, Jimmy Martin, Kevin Sharp, Harry Yeh, Laurie Johnson



### **Initial Thoughts**

- Multi-Hazard vs. Non-Earthquake
  - FEMA uses Multi-Hazard as communityspecific exposure to multiple sources of peril
- "Extreme" and "Event"
  - Disaster in terms of damage or loss
  - Triggering event

#### What Qualifies?

- Guiding Principles needed
  - Geotechnical Component
  - Compelling Question to be Answered
  - Education (add to body of knowledge)
  - Education (expand capabilities of participants)
  - Degree of Documentation (case histories)
  - Available Data (precipitation, wave height, ...)
  - Access to Features
  - Disaster Declaration

## Candidate Extreme Events

- Hurricane (flooding and storm surge)
- Floods (levee erosion and failure)
- Dam Failure (?)
- Coastal (large-scale erosion)
- Storms (landslide, debris flow, erosion)
- Snow-melt (landslide, debris flow, erosion)
- Volcanic eruption (lahar, landslide-dam)
- Meteorite impact
- Impulse Waves



### Candidates for Exclusion

- Coastal Subsidence
- Sinkhole Collapse
- Mine Collapse
- Shrink-Swell Soil
- Isolated Landslide

### Candidates for Collaboration

- National Weather Service
- Corps of Engineers
- USGS
- DHS / FEMA
- State Departments of Water Resources