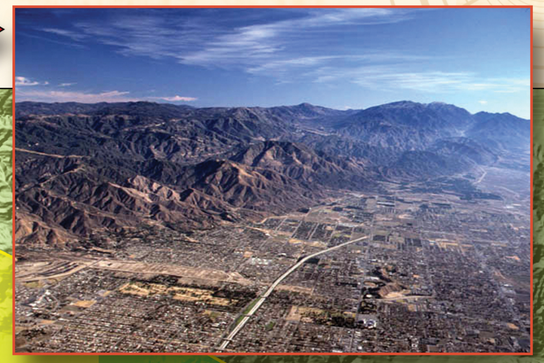
Using HAZUS-MH for Mitigation Planning Efforts

Earthquake Model Scenario: *San Bernardino Segment of the San Andreas Fault Zone*

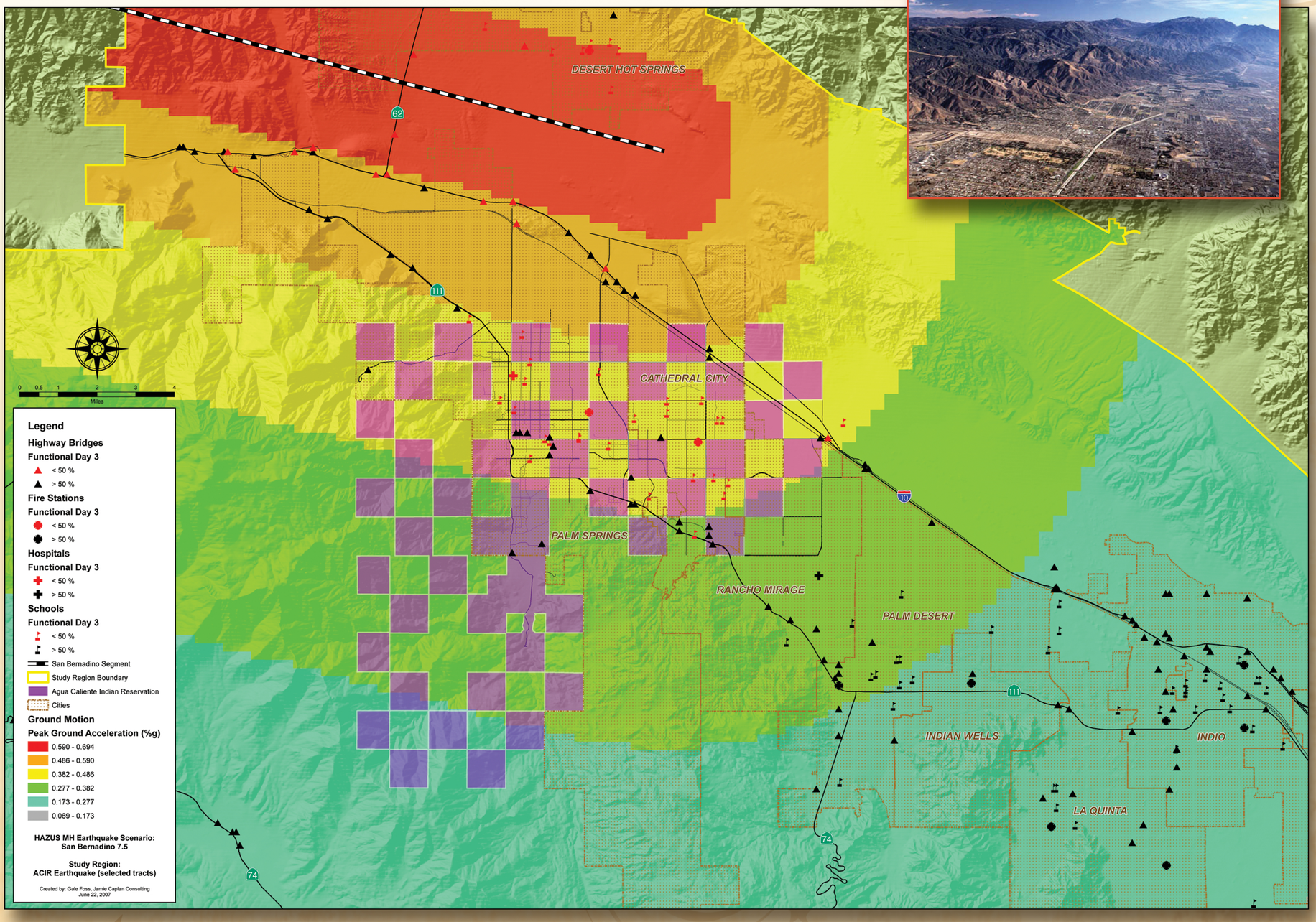
Aerial photograph looking northeast toward the San Bernardino Mountains and part of the San Bernardino Basin, southern California. The San Andreas Fault lies along the base of the mountains.



HAZUS-MH is a risk assessment software program developed by the Federal Emergency Management Agency (FEMA) for analyzing potential losses from floods, hurricane winds and earthquakes.

Using this model, we ran a scenario based on a 7.5 magnitude earthquake (the maximum for this fault segment identified by the U.S. Geological Survey) affecting the San Bernardino segment of the San Andreas Fault Zone. Based on software-supplied data (level 1), this map shows the Peak Ground Acceleration (PGA) of the fault segments, red being the most acceleration. This map includes the percent of functionality for the Highway Bridges, Fire Stations, Hospitals, and Schools categories on the third day after the event.

The earthquake model helps jurisdictions adapt their mitigation planning and facility coordination. This map was prepared for the Agua Caliente Band of Cahuilla Indians' Pre-Disaster Mitigation (PDM) plan.



FEMA

To learn about HAZUS-MH, a loss estimation software: www.fema.gov/plan/prevent/hazus/index.shtm
For more information on becoming active in a HAZUS User Group: www.fema.gov/plan/prevent/hazus/hz_users.shtm

DATA SOURCES: HAZUS-MH (Loss estimation methodology developed by FEMA); Roads: TIGER2000; U.S. Census Bureau; Hillshade created from U.S. Geological Survey (USGS) data. Aerial Photograph: USGS