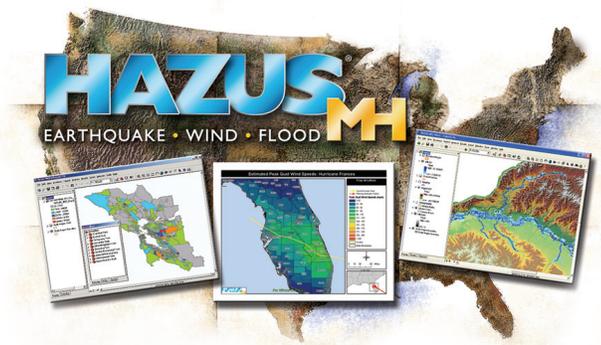
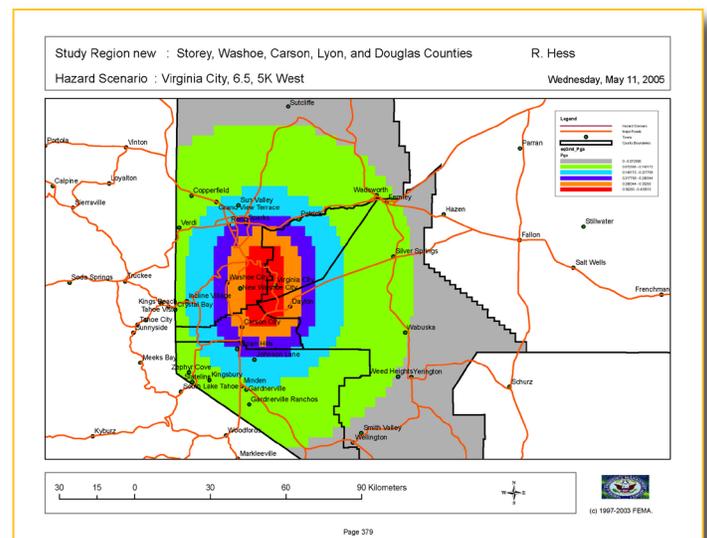


NVHUG Loss-Estimation Modeling of Earthquake Scenarios for Each County in Nevada Using HAZUS-MH



Background

With the support of the Nevada Division of Emergency Management the Nevada Bureau of Mines and Geology (NBMG) conducted a project to model the potential earthquake loss in each county in the state of Nevada using HAZUS-MH. Potential earthquake faults that are located near each County seat were selected as the basis for each County HAZUS-MH model. The results generated by HAZUS-MH for this project, including statistics and maps, have been made available to the Nevada HAZUS User Group and to the general public via the Web at www.nbmj.unr.edu/dox/of061/of061.htm.



One of the first pieces of information needed in disaster planning, preparedness, and response is a general estimate of potential damage and costs of an event, such as an earthquake. Nevada has a relatively high level of earthquake hazard, but that hazard is not evenly distributed throughout the state. Another relevant factor is that the characteristics of the population, infrastructure, and societal resources vary dramatically across the state.

The probability of at least one magnitude 6 or greater event in the next fifty years is between 34 and 98%. The probability of at least one magnitude 7 or greater event in the next fifty years is between 4 and 50%. Hazards include intense ground shaking, ruptures of the ground, liquefaction, landslides, and ancillary problems, such as fires and hazardous waste spills. Understanding these facts, plus the fact that it is possible to prepare, respond, and mitigate structural and nonstructural risks motivated this project.

Project

A fault that has been determined to be a likely source of an earthquake was selected near each County seat. How often such an earthquake may occur, a parameter that varies from thousands to tens of thousands of years, was not considered in this study. In all cases it is not known when the next earthquake will occur, only that there is a high probability of occurrence. The earthquake scenario provides decision makers with information they need to plan for an earthquake occurrence.



