

ABOUT THIS STUDY

When we began this study in 1999, the date **9/11** was just another day on the calendar. It isn't any more. The destruction caused on that infamous day in 2001 has affected the nation profoundly. It has even affected the way studies such as ours perceive, assess, and mitigate risk. The terrorist attacks on the World Trade Center gave us a new benchmark for comparison: Would an earthquake in the New York City metro area incur comparable injuries, casualties, and financial losses?

The answer to this question is disconcerting. Even a moderate event (Magnitude 6) could result in an estimated 1100-1200 deaths, as well as igniting up to 900 fires simultaneously in the NY-NJ-CT region. Considering the large population (18.5 million) and the region's building inventory (predominately unreinforced masonry), it is clear that even a moderate earthquake would have critical consequences on public safety and the economy of this area.

Who is NYCEM?

To create public awareness of seismic risk, the New York City Area Consortium for Earthquake Loss Mitigation (NYCEM) was formed in 1998. The group consists of interested organizations and major public and private stakeholders from federal and state emergency management, public service, engineering, architecture, financial and insurance companies, and academia.

Why This Study?

Our specific objectives for this study were to:

- ▶ Develop and implement a risk and loss estimation for the metropolitan NY-NJ-CT region using *HAZUS*, which is FEMA's methodology for performing loss estimations
- ▶ Assemble soil information for the entire Tri-State region to quantify details of the seismic hazard
- ▶ Compile a complete building inventory for Manhattan to estimate local impact, and a less detailed building inventory for the surrounding metropolitan areas to realistically quantify regional risk
- ▶ Identify and model a variety of earthquake scenarios and their probable consequences
- ▶ Assess the performance of individual, essential facilities relative to the probable demands placed on them
- ▶ Present results and recommendations for developing and implementing cost-effective risk management plans to reduce potential damage and losses.

This report summarizes our findings. We believe the results outlined herein will help strengthen the already robust disaster management program in the NYC metro area.

The New York City Area Consortium for Earthquake Loss Mitigation, www.nycem.org