



Berkeley Hazard Mitigation Bond Program

Full Mitigation Best Practice Story

Alameda County, California



Berkeley, CA - Like most California communities, the City of Berkeley is susceptible to multiple hazards, including earthquakes, wildland-urban interface fires, landslide and liquefaction areas, and urban creek flooding. The community has experienced significant earthquake damage in recent years and is in continual preparation for the forecasted Hayward fault event as well as and other major regional earthquakes. The Hayward fault runs through the eastern portion of Berkeley.

The City of Berkeley launched its first mitigation bond program in 1992 with passage of two general obligation bond measures and establishment of a variety of municipal residential upgrade incentive programs. The main purpose of the city's program is to reduce potential life and property losses in the event of a major natural disaster.

An Un-reinforced Masonry Upgrade Program was developed to provide legislative mandates for the upgrade of hazardous buildings and a seismic technical Advisory Group established to advise the city manager on all seismic safety projects. A thorough study is planned to define the community's risk exposure including loss estimates using FEMA's HAZUS software. The study will be used to adopt improved building codes and standards for upgrades and to secure funding sources for private sector risk reduction. Further, the city constructed a new Emergency Operation Center(EOC) and a separate public safety building to house police and fire operations, and installed a contingency disaster water supply system. The city also instituted a special fire assessment district in the Berkeley hills areas most vulnerable to wildland-urban interface fires. These districts levied an annual fee of \$50 per parcel to fund vegetation management activities and provide fire prevention assistance for property owners.

Berkeley launched another phase of the mitigation program, the Disaster Resistant Community Project, in December of 1998. This project will assist city officials to combine the efforts of the University of California, Berkeley and the city along with many community stakeholders to continue hazard assessment and mitigation efforts. The public sector work has been very successful. By the year 2002, every major municipal and school building in Berkeley will be seismically upgraded. Private sector mitigation is what the city will concentrate on for the next five to 10 years to reduce hazards in seismically weak commercial and residential structures. About 1,200 homes are upgraded annually via the transfer tax rebate program for a total of approximately 6,300 homes in the last five years. Another 1,250 residences have been upgraded in the last 18 months using the permit fee waiver program.

The local investment in risk reduction is tremendous and has generated \$262 million in three local mitigation bond measures. City officials say that the post disaster costs saved would be at least \$520 million with this pre-disaster mitigation investment.

By leveraging funds and seeking technical assistance from a variety of sources, this city has made significant progress in reducing hazards and making its residents more aware of the necessity to mitigate and prepare before the next earthquake. These efforts will protect the infrastructure, economic stability and sustainability of the community and in doing so the residents will benefit from their investments in mitigation.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region IX**

State: **California**

County: **Alameda County**

City/Community: **Berkeley**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Earthquake; Wildfire**
Activity/Project Type: **Retrofitting, Structural**
Structure Type: **Masonry, Un-reinforced/Plain**
Activity/Project Start Date: **01/1992**
Activity/Project End Date: **Ongoing**
Funding Source: **Homeowner; Local Sources; Private funds**
Funding Recipient: **Local Government**
Funding Recipient Name: **City of Berkeley, California**

Activity/Project Economic Analysis

Cost: **\$262,000,000.00 (Estimated)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **No**
Value Tested By Disaster? **No**
Repetitive Loss Property? **No**

Reference URLs

Reference URL 1: <http://www.ci.berkeley.ca.us/>
Reference URL 2: <http://www.usfa.fema.gov/>

Main Points

- The City of Berkeley launched its first mitigation bond program in 1992 with passage of two general obligation bond measures and establishment of a variety of municipal residential upgrade incentive programs.
- An Un-reinforced Masonry Upgrade Program was developed to provide legislative mandates for the upgrade of hazardous buildings and a seismic technical Advisory Group established to advise the city manager on all seismic safety projects.
- About 1,200 homes are upgraded annually via the transfer tax rebate program for a total of approximately 6,300 homes in the last five years.
- By leveraging funds and seeking technical assistance from a variety of sources, this city has made significant progress in reducing hazards and making its residents more aware of the necessity to mitigate and prepare before the next earthquake.

