

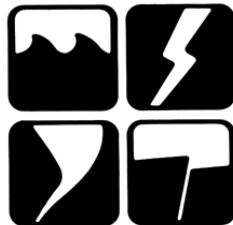
**Damage Assessment After the  
Paso Robles (San Simeon, California) Earthquake:  
Lessons for Emergency Management**

**By**

**David A. McEntire  
and  
Jill Cope**

**2004**

**QUICK RESPONSE RESEARCH REPORT #166**



**The views expressed in the report are those of the authors and not necessarily those of the Natural Hazards Center or the University of Colorado.**

## **Introduction**

Disaster research indicates that response is the most widely studied phase of emergency management (Mileti 1999; Tierney et. al. 2001). Studies have covered a variety of topics including: emergence (Drabek and McEntire 2003), warning (Sorensen 2000), evacuation (Sorensen and Mileti 1988), sheltering (Quarantelli 1982), mass fatality incidents (Hooft et. al. 1989), unrequested donations (Neal 1994), debris management (Swan 2000), politics (Sylves and Waugh 1996), special populations (Fothergill et. al. 1999), general management/administration (Quarantelli 1997) and coordination (McEntire 2002). Ironically, the function that often initiates disaster response operations and facilitates recovery has not received much attention. This vital activity is damage assessment.

The following Quick Response Report attempts to add to the knowledge base of this neglected aspect of emergency management. In so doing, the paper will utilize the San Simeon earthquake in Paso Robles, California (San Luis Obispo County) as a case study to identify lessons for the emergency management profession. These findings cover, among other things, issues ranging from the importance and repetitive nature of damage assessment to coordination challenges among the many actors involved in this post-disaster function. Prior to discussing such issues, the paper will provide background information about Paso Robles and the earthquake, and then discuss the methods utilized to collect data for this study.

## **Background Information**

Paso Robles is a small city (18.7 square miles) situated just North of San Luis Obispo on U.S. Highway 101 in central California. According to the U.S. Census, the population of Paso Robles stood at 26,900 in 2003 (City of Paso Robles 2004). The economy of this city is based heavily upon retail trade, tourism, manufacturing services and agriculture, but there are also construction and finance sectors. Major employers in the area include public schools, the California Youth Authority, Wal-Mart, Specialty Silicone Fabricators, ProForms, and the city government. The State of California declares that the vast majority of people live in single family residences in Paso Robles. However, there are also a limited number of individuals and families that live in mobile homes or apartments. Paso Robles is therefore very similar to the other incorporated cities in San Luis Obispo County.

Because of its location near California's fault lines along the Pacific coast, Paso Robles and San Luis Obispo County are prone to earthquakes. And, at 11:15:56 on December 22, 2003, a major earthquake on the Oceanic fault (a relative of the San Simeon fault) occurred registering 6.5 on the Richter scale. According to a Preliminary Earthquake Report provided by the United States Geological Survey (2004), the earthquake was located at 35.706 degrees North, 121.102 degrees West (about 24 miles West/North West of Paso Robles). The quake had a depth of 4.7 miles and was reported to have lasted for several seconds. Although the earthquake was felt in both San

Francisco and Los Angeles, Paso Robles and the County of San Luis Obispo suffered the brunt of the shaking.

The earthquake resulted in both human and material losses. Two women died while trying to exit a downtown retail business; the building crushed them as it toppled to the ground. A few victims were trapped for some time in other collapsed structures and had to be rescued by emergency workers. At least 40 others went to area hospitals with injuries such as lacerations and fractures. As severe as the human toll was, it could have been much worse. When the earthquake occurred, the downtown area was only moderately populated in spite of the busy Christmas shopping season. Also, the normal crowds had not yet gathered for lunch in local restaurants.

But the buildings and infrastructure in the area were not quite as fortunate (see Attachment A). Chimneys were broken on many homes throughout San Luis Obispo County. Porches collapsed and cracks were visible in the exterior walls in other residences. Mobile homes shifted off of their foundations in some areas (Quinn 2003). Windows and the facades of many offices were broken and/or damaged, especially in the City of Paso Robles. Support columns in other edifices were severely weakened throughout the area. One bread store in a downtown area was completely flattened. Turley Wine Cellars lost up to 150 barrels of wine when they crashed to the floor as the shaking began. A number of schools were damaged, but one received losses to 14 classrooms, the auditorium, and a number of school offices. A historic clock tower tipped over in downtown Paso Robles. The City Hall in Atascadero also sustained a substantial amount of damage in the event (Allan 2003). In Paso Robles, the Senior Center was damaged when a fire sprinkler broke, spewing forth a large amount of water to ruin drywall, insulation and floor coverings (City of Paso Robles 2004). The Paso Robles library received damages to the stucco on the exterior of the building and the dry wall on the interior (City of Paso Robles 2004). Along the coast, the historic Hearst Castle was spared but some of the irreplaceable artifacts were damaged inside (Lynem 2004). Roads were cracked in several places including State Highway 46. Gas lines were broken in some neighborhoods (Snow 2003) and up to 100,000 people lost power for a short time. Two of the three water storage tanks in Paso Robles shifted during the earthquake. A large hot spring (1,000 GPM) emerged in the middle of the Paso Robles City parking lot, discharging pungent water into the street. Residences, businesses, government property and the infrastructure had obviously sustained heavy but scattered damages in many areas.

As of January 7, 2004, estimated damages were as follows:

- \$35,000,000 to primary residences
- \$134,510,000 to businesses
- \$54,027,500 to public buildings and equipment
- \$140,000 to agricultural equipment such as irrigation systems and pumps

Total financial losses along with the cost of debris removal and emergency protective measures amounted to \$226,557,500 for the entire county (County of San Luis Obispo 2004). These figures do not include state road systems and other damages or indirect losses/expenses.

It is necessary to note that most of the affected areas did not experience total losses as has been witnessed in other earthquakes in California and around the world. And, there appeared to be a fairly strong, inverse relation with modern building codes, advances in seismic engineering and retrofitted buildings. Older, unreinforced masonry buildings (URM) seemed to receive most of the damages (Bridges 2003). But, the destruction was severe for this rural area and the small jurisdictions in the County of San Luis Obispo. The earthquake is therefore a good case to study for the purposes of understanding damage assessment.

## **Methods**

Immediately after the Paso Robles earthquake, the authors began collecting and analyzing various documents from the Internet about the event, its resulting impacts and the ongoing response. Many of these articles were from local and national news sources, while other material included publications from the United States Geological Survey, the City of Paso Robles and its Chamber of Commerce. After contacting the County Office of Emergency Services to learn more about efforts to evaluate the destruction, it was decided that a request would be made to activate a Quick Response Grant from the Natural Hazards Center at the University of Colorado at Boulder. When approval was granted, the authors traveled to the site and spent a few days conducting interviews with numerous participants involved in damage assessment. Interviewees represented diverse organizations and included the mayor and representatives from the Chamber of Commerce, the American Red Cross, the Main Street Association, Public Works, the Fire Department and the County Office of Emergency Services. While in Paso Robles, the authors attended a press conference held by Senator Barbara Boxer. The local library was also visited to acquire articles from local newspapers about the earthquake and ongoing damage assessment operations.

Questions asked during the interview included:

- How important is damage assessment for the response and recovery phases of emergency management?
- What organizations have been involved in this function?
- What steps were/are being implemented by your department/agency to evaluate the destruction?
- What types of damage assessments were/are being undertaken after the earthquake?
- Did/does the damage assessment occur more than once after the disaster?
- Were there challenges encountered after the disaster that inhibited an effective assessment of the hazard's impact?
- In what areas do you feel your organization was successful and why?
- What lessons should be gleaned from this damage assessment operation and applied to future disasters?

After returning from the field, the authors' notes and taped interviews were then reviewed and a draft of the Quick Response Report was created. This preliminary paper was then sent to various officials involved in damage assessment. These individuals were

then asked to read the draft and provide comments on its content and accuracy. Recommendations were then incorporated into this final Quick Response Report.

## Lessons

Our research uncovered a number of interesting and relevant findings about damage assessment for the emergency management community. Below is discussion of the most important lessons from the Paso Robles earthquake.

1. Damage assessment plays a vital role during the initial minutes and hours of disaster response operations. One of the first activities in any disaster is to assess its impact in order to marshal resources and determine strategic priorities. In several parts of the county, it was the citizens who experienced the earthquake and witnessed its resulting damage that called the fire departments through the 911 system. The mayor of Paso Robles also became involved in the emergency assessment process during the first few minutes of the incident. Once the ground stopped shaking, he immediately exited his office and heard one of the buildings collapse in the downtown area. He ran a few blocks and thought, upon witnessing an incredible scene of destruction, that scores of people would have been killed by the falling rubble in the downtown area. At the same time, the fire department noted the devastation and accordingly summoned additional emergency personnel including those mutual aid partners from surrounding jurisdictions. It was believed that this quick response by the fire department helped to prevent many fires (Snow 2003). A short time later, the mayor met with other city leaders in the Emergency Operations Center (EOC) to declare a state of emergency and discuss policies regarding the disaster's impacts (including the damage assessment function). Thus, damage assessment is certainly relevant to the initial emergency phase of disaster, which is a fact that has not been pointed out adequately in prior research.
2. Damage assessment is crucial to the recovery phase of emergency management and is required before resources can be acquired and utilized for disaster assistance and rebuilding. Before a disaster can be declared at the federal level, sufficient evidence must be gathered about damages and financial losses. One public official commented about the importance of damage assessment after the San Simeon earthquake: "if you are looking for any state or federal assistance, you need to be able to substantiate those numbers. . . . the assessments are absolutely essential [for this purpose]." Simply put, disaster grants and loans cannot be received unless and until warranted through the damage assessment process.
3. Although damage assessment is a dangerous activity, it does promote a safer environment for the public and those involved with repairs, demolition and reconstruction. When the fire department arrived at the area in Paso Robles with the greatest concentration of damages, the dangerous situation of many buildings was taken into consideration. Roofs and upper floors had collapsed to the ground

level. Eaves and awnings above the sidewalks had fully or partially separated from numerous edifices. Walls had crumbled, and bricks and concrete were hanging precariously from building facades. Fire fighters therefore used yellow tape to cordon off the areas that were regarded to be the most dangerous. The goal was to keep the public out of harms way.

Over the next few days, the fire and police chiefs met with other city leaders to discuss post-disaster policies. Safety became the number one priority. Anyone entering the area had to have proper safety equipment and had to be accompanied by a fire fighter. Fences were brought in and a perimeter was placed around the damaged buildings in the downtown district. Police officers were stationed in the area to prevent people from entering unsafe areas and buildings (and as a symbolic gesture to discourage possible - but improbable - looting). As the inspections continued, those offices deemed safe were opened to building owners and merchant tenants. Other buildings had to have debris removed, receive shoring, and then be assessed again before access could be granted. Condemned buildings remained closed to the public, although there was at least one report of a building occupant disregarding the fences and entering a damaged structure to gather personal belongings. Nonetheless, damage assessment did play a role in limiting the number of injuries and deaths associated with this disaster.

4. There is an incredible convergence of personnel at the scene of a disaster for the purpose of evaluating the disaster's impacts. Aside from emergency workers and curious onlookers, there were a number of people and agencies that were involved in examining the impact of the disaster. The American Red Cross had at least 10 people (five groups consisting of two inspectors each) conducting damage assessments on residential structures. The Building Department played the lead role in conducting damage assessments for city facilities and downtown businesses. Because this department only has a few staff members, its efforts were supported by many volunteer architects and engineers who came to Paso Robles from different parts of California. The Chamber of Commerce and Main Street Association worked with local businesses to determine lost income, the number of employees laid off, and other liabilities associated with the disaster. Public Works contracted with several consulting firms such as Boyle, Floyd and Butterfield, and GSI to assess water storage tanks, the sewage treatment facility, and the hot spring that percolated to the surface in the City Hall parking lot. Officials from county, state and federal emergency management agencies traveled to Paso Robles and worked with the County Office of Emergency Services to verify destroyed property. The State Department of Transportation (CalTrans) spent time inspecting state bridges and highways. Insurance companies also assessed damages to settle claims with their clients. Although there were a number of organizations involved in damage assessment, the most important in this disaster were the American Red Cross (for residential structures), the Building Department (for city facilities), Public Works (for the infrastructure), and the County Office of Emergency Services (which compiled the damage assessment numbers and relayed them to FEMA).

5. There are different types of damage assessments and diverse methods to conduct them. The earthquake in Paso Robles has seen and will experience at least three types of damage assessments. An *initial damage assessment* was conducted immediately after the event by the Fire Department to evaluate safety concerns and begin to mobilize resources. As time progressed, the County Office of Emergency Services gathered residential damage assessment data from the Red Cross as well as all other types of damage and loss estimates from governments and businesses in the area. This data was presented to state and federal emergency management officials for verification as part of the *Preliminary Damage Assessment* (which opens up the possibility of receiving a Presidential Disaster Declaration). Insurance agencies and FEMA employees are now starting to conduct very specific *technical damage assessments* to identify the appropriate amount of reimbursement.

These above types of assessments were and will be carried out through different means. The initial damage assessment was performed in vehicles by the Red Cross, the Fire Department, and Public Works. This is known as a *drive-through assessment*. In this case, observers tally visible damages in specific areas to gain a quick appraisal of the overall scope of the destruction. Many different county agencies utilized planes and helicopters to conduct their initial damage assessments. This is known as an *aerial damage assessment*, which covers a large geographic area and is often the preferred means of politicians. *Site assessments* were utilized or will be employed by virtually all organizations to perform initial, preliminary and technical assessments. This involves an up-close visual confirmation of the situation or a walk-through evaluation of the building by damage assessment experts. Damage assessments are consequently not only varied but are undertaken via distinct methods as well.

6. Damage assessment is not a one-time occurrence, but a repetitive process. While attempting to mobilize resources, ensure safety, acquire federal aid, and confirm the accuracy of disaster losses, all organizations conducted damage assessment in an extremely redundant manner. In San Luis Obispo County, there were a number of reasons for this repetition. First, all earthquakes (including the one that occurred in San Simeon) produce hidden damage that is often difficult to detect in the initial damage assessments. Second, the quake's aftershocks caused additional destruction to buildings and the infrastructure which required follow-up damage assessments. But there were also organizational factors that resulted in the need for further damage assessments. For instance, the Red Cross utilized an initial damage assessment to determine the number of personnel that would need to be called in to carry out more detailed appraisals later on. When these human resources arrived, the more comprehensive assessment could then take place. The Building Department in the City of Paso Robles conducted repeated damage assessments for businesses in the downtown area. During the emergency period after the disaster, many buildings were inspected quickly and declared off limits. In the following days, inspectors reevaluated buildings and some of them were reopened. The county, at the request of the Federal Emergency Management

Agency, also tried to finish the preliminary damage assessment within a few weeks after the disaster. The date was then pushed back by FEMA, which allowed the county to add to its initial figures. At the time of this writing, damage reports continue to flow in to county officials. FEMA is now beginning to conduct technical damage assessments. In Paso Robles, as in other parts of the county, the damage assessment was on-going and dynamic rather than static and a one-time occurrence.

7. Accuracy of initial and even latter damage assessments may be questionable. In most disasters, some of the damage assessments will be inaccurate or incomplete. Respondents stated that this might have been the case in Paso Robles and San Luis Obispo County as well. As already mentioned, some of the buildings that were initially designated as being severely damaged were not actually in a dangerous condition. Ergo, the fence perimeter around buildings was moved periodically to reflect the change in building status. Furthermore, assessing the damage from earthquakes is much more time consuming than other types of disasters. In comparison to the visible destruction of floods and fires, earthquake damage is sometimes difficult to detect. The integrity of structures may only be seen upon careful examination and inspection from within the edifice. The widespread nature of the damages and time of year may have also resulted in less-than-perfect numbers. The earthquake's adverse effects were spread over the entire county, which made traveling to each site for verification problematic. In addition, many people were out of town and were only able to report damages when they returned after the holidays. There were also a significant number of vacation homes in rural areas that could not be assessed until the owners came back to inspect them. Consequently, damage assessment numbers fluctuated consistently but generally grew over time.
8. Damage assessment is a politically salient activity after a disaster occurs. When the earth stopped shaking, the disturbing images of destruction encouraged the mayor and city council to declare a disaster in Paso Robles. The county also declared a local emergency about one hour after the incident. The next day, Governor Arnold Schwarzenegger traveled to Paso Robles to see the damage first-hand, and he issued a state of emergency for the entire County (Schwarzenegger.com 2004). Because the extent of the impact was not well-known for several weeks after the event, the damage assessment process became very important in political terms. The county set up a designated line for assessment purposes and, in one day alone, received over 200 calls from people reporting damages (Tribune Staff Reporter 2004). The Chamber of Commerce contacted each business to ensure that its damages and related losses were reported. It also posted a special section on its website dedicated to the earthquake (City of Paso Robles 2004). Among the documents located here, the Chamber made a plea for business and home owners to relay vital damage information to the city or county (see Attachment B). It also encouraged disaster victims to write letters to key political figures, and even had a sample letter and addresses on the webpage (see Attachment C). The Paso Robles Main Street



Association also wrote a letter to U.S. Representative Bill Thomas to encourage him to do what he could to help bring political attention to the devastated areas (see Attachment D). The State Office of Emergency Services also stressed to FEMA the extent of the damages (Tribune Staff Reporter 2004).

Because FEMA's decision was slow in coming, congressional leaders traveled to Paso Robles during the second week of January. Representative Thomas visited the area on the 8<sup>th</sup> and Senator Boxer did the same on the 9<sup>th</sup>. Both toured the area to see damages, and then held press conferences to bring further visibility to the disaster. Some of the people present expressed the concerns of the special interest groups they represented (e.g., Hispanic population, historic Catholic Missions, etc.). Senator Boxer then explained in her press conference that she was concerned about possible damages to a nuclear power plant in the area (see Attachment E). She then told city officials and reporters that she wrote letters to Governor Schwarzenegger and President Bush to explain the extent of the disaster needs and she encouraged disaster victims to do the same (see Attachments F and G). Hence, damage assessment was not only a technical process but a political problem-solving activity as well. The extent of the damages and strong pressure on the government resulted in a Presidential Disaster Declaration on January 13, 2004 (see <http://www.fema.gov/news/newsrelease.fema?id=10390>).

9. There are several challenges confronting damage assessment personnel. Aside from the general difficulties associated with earthquake assessments, the geographic scope of the event and time of occurrence, there were other problems facing those involved in evaluating damages. Many employees, tenants and owners in the downtown area desired to obtain personal belongings such as keys, wallets or purses they left behind when they evacuated the damaged buildings. A determination had to be made about the possibility of meeting these requests in a safe manner, and then fire fighters retrieved the belongings (with the use of a drawn map of the office space and location of the belongings) or accompanied the individuals into the area so they could be acquired.

Another problem surrounded the condemned buildings. Some business operators were frustrated that they could not retrieve retail stock, display cases, and other equipment for operations (e.g., machines and computers) in a timely fashion (Snow and Quinn 2003). They were losing money and saw no way to resume business in other locations until these articles could be obtained. The city wanted to err on the side of caution, however, since the possibility of sizable aftershocks could easily bring down previously damaged structures. Doug Monn of the Building Department also told more than 200 business and building owners at a special meeting that his staff was short handed and that patience would be required (Snow and Quinn 2004). He also provided information about future permitting requirements at the gathering.

Other problematic factors included the difficulty of communicating with each of the parties involved in damage assessment, or compiling the numbers from different organizations. Although organizations generally had communications equipment, the sheer number of people and agencies involved

made the relaying of information difficult at times. In addition, each department or agency had a specific reason for conducting damage assessment and the numbers were not always compatible. For instance, organizations had their own forms that were distinct from those of others, and counting techniques were also divergent. Some assessors also preferred to use parcel numbers on their documents while others utilized the complete addresses of damaged buildings. In addition, it was noted that there was confusion as to whether damages should be tallied according to purchase price, market value, or replacement costs. It was reported that no clear answer was given by the federal government. All of these things made damage assessment a monumental and difficult undertaking.

10. Many steps can be taken before and after a disaster to ensure an efficient and effective assessment of damages. All things considered, the damage assessment after the Paso Robles earthquake was fairly successful. Some interviewees at the county level believe that their prior planning, training and experience in damage assessment made the function easier to perform. In contrast, officials in Paso Robles asserted that their creativity and flexibility helped them complete their damage assessments in spite of their small staff in the building department. In particular, as volunteer engineers and architects arrived in Paso Robles, they were told to check in at the gazebo at the park in front of City Hall. These experts were then divided into teams (comprised of at least one fire fighter, an architect and an engineer), were assigned geographic areas, were given keys to the buildings that were collected from local businesses, and were briefed about dangerous conditions and the goals and methods of the assessment. Many people commented about how individuals worked together harmoniously to assess the damages.

Another major strength made evident during damage assessment was the widespread knowledge of standard operating procedures. Fire fighters spray painted symbols common to the search and rescue community on buildings to denote who evaluated the safety of the structures, when this was done and what the results were. The Building Department also utilized California's damage codes (e.g., red – condemned, yellow – potentially dangerous, and green – safe) to track destroyed areas and educate building owners and occupants about their meaning and status. The shift rotation of the Emergency Operations Center appears to have been very smooth, with periodic briefings about the damage assessment function when leadership duties changed. Modern technology such as specialized cameras were utilized to detect damages to the city's water treatment facilities, and Geographic Information Systems helped to track the extent of all types of damages throughout the county. Moreover, Paso Robles City utilized the web in an effective manner to keep the media and public informed about damage assessment issues (see Attachments H and I). A final strength made evident in this event is that the leaders in Paso Robles did an excellent job of reaching out to the community to ask for damage reports and they utilized the political system to its advantage. These efforts ultimately resulted in a Presidential Disaster Declaration, thereby opening up the possibility for federal recovery assistance for victims in the area. These are a few of the many positive features made evident

during the damage assessment process in Paso Robles and in other areas of San Luis Obispo County.

## **Conclusion**

Like many other disasters, the Paso Robles earthquake resulted in death, injuries, destruction and disruption. One of the most important and repeated functions undertaken by numerous organizations after this event was damage assessment. It helped to ensure the safety of citizens and emergency workers, and had the goal of bringing outside resources into the area to assist recovery efforts. Although there are different types of and methods for damage assessment, each kind witnessed the challenge of accuracy. Damage assessment was also a key political issue during the disaster declaration process. While there were many problems that appeared during the assessment of damages after this disaster, steps were taken to promote successful evaluations of property destruction and financial losses.

In closing, it is hoped that this research will benefit scholars and practitioners interested or involved in emergency management. Since the findings in this paper can only be regarded as preliminary due to the utilization of a single-case methodology, the authors encourage additional studies about damage assessment in the future. There is much to be learned about this vital function, which may significantly improve disaster scholarship and assist the emergency management profession as it deals with increased vulnerability and rising disaster losses.

## **References**

- Allan, L.W. 2003. "City Hall Sustains \$10 Million in Damages." *Atascadero News*, December 31, A1.
- Bridges, Andrew. 2003. "Earthquake Claims a Building that Wasn't Upgraded to Meet Safety Standards." *Azcentral.com*. [http://www.azcentral.com/news/articles/1223Calif-Qua . . .](http://www.azcentral.com/news/articles/1223Calif-Qua...)
- City of Paso Robles. 2004. Demographics, Damage Assessment, Earthquake Repair Funding, Earthquake Information. [http://www.prcity.com/government/departments/commd . . .](http://www.prcity.com/government/departments/commd...)
- County of San Luis Obispo. 2004. "Summary of Financial Damage Estimates for the San Simeon Earthquake." January 8, San Luis Obispo County Office of Emergency Services.
- Drabek, Thomas E. and David A. McEntire. 2003. "Emergent Phenomena and the Sociology of Disaster: Lessons, Trends and Opportunities from the Research Literature." *Disaster Prevention and Management* 12 (2): 97-112.

Fothergill, Alice, Enrique G.M. Maestas, and JoAnne DeRouen Darlington. 1999. Race, Ethnicity and Disasters in the United States: A Review of the Literature." *Disasters* 33 (2): 156-173.

Hooft, Peter J., Eric K. Noji and Herman P. Van De Voorde. 1989. "Fatality Management in Mass Casualty Incidents." *Forensic Science International* 40: 3-14.

Lynem, Julie. 2004. "Artifacts are Broken, But not Beyond Repair." *The Tribune*, January 9, A1.

McEntire, David A. 2002. "Coordinating Multi-Organizational Responses to Disaster: Lessons from the March 28, 2000, Fort Worth Tornado." *Disaster Prevention and Management* 11 (5): 369-379.

Mileti, Dennis S. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Joseph Henry Press: Washington, D.C.

Neal, David M. 1994. "The Consequences of Excessive Unrequested Donations: The Case of Hurricane Andrew." *Disaster Management* 6 (1): 23-28.

Quarantelli, E.L. 1997. "Ten Criteria for Evaluating the Management of Community Disasters." *Disasters* 21 (2): 39-56.

Quarantelli, E.L. 1982. *Sheltering and Housing After Major Community Disasters: Case Studies and General Observations*. Federal Emergency Management Agency: Washington, D.C.

Quinn, Anne. 2003. "Los Robles Mobilehome Estates Hit Hard by Quake." *Paso Robles Press*, December 31, A1.

Schwarzenegger.com. 2004. "Governor Schwarzenegger Tours Paso Robles, Declares State of Emergency in San Luis County."  
<http://www.schwarzenegger.com/en/news/uptotheminut> . . .

Snow, Mary. 2003. "Fire Department's Quick Actions Prevented Fires." *Paso Robles Press*, December 31, A1.

Snow, Mary and Anne Quinn. 2003. "Downtown Merchants Face an Uncertain Future." *Paso Robles Press*, December 31, A1.

Sorensen, John H. 2000. "Hazard Warning Systems: Review of 20 Years of Progress." *Natural Hazards Review* 1 (2): 119-125.

Sorensen, John H. and Dennis S. Mileti. 1988. "Warning and Evacuation: Answering Some Basic Questions." *Industrial Crisis Quarterly* 2: 195-209.

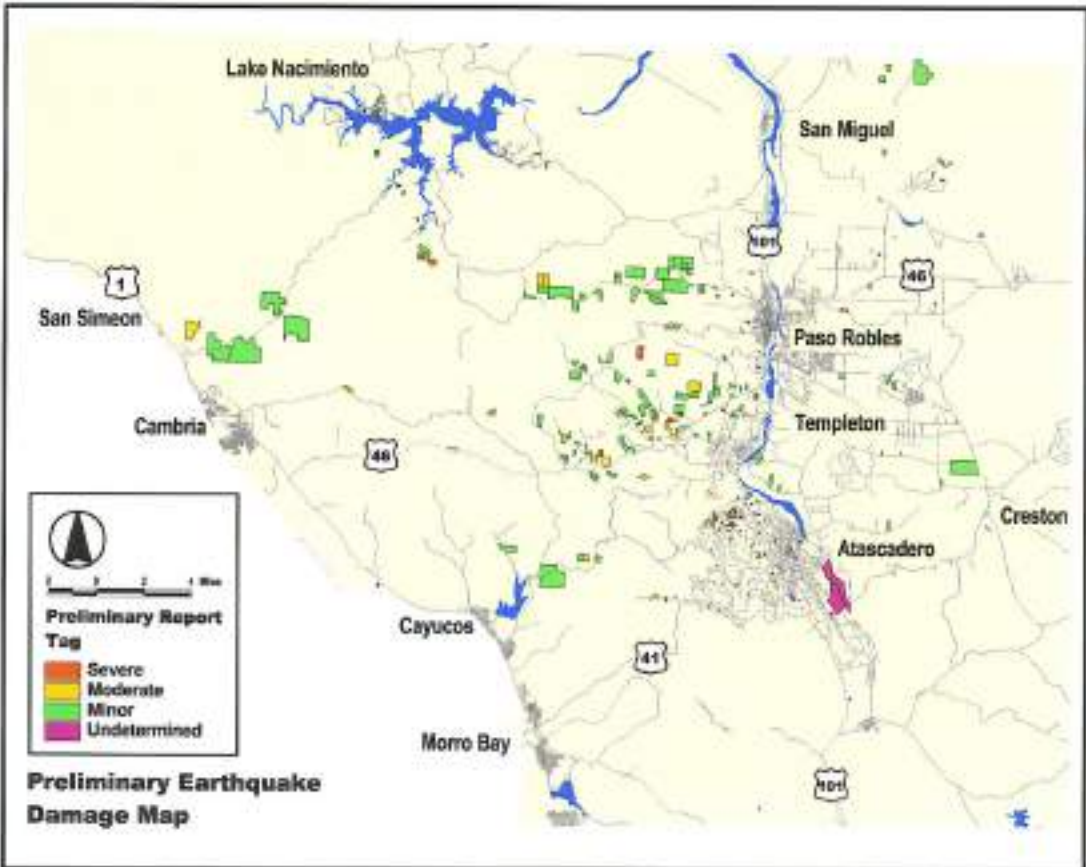
Swan, Robert C. 2000. "Debris Management Planning for the 21<sup>st</sup> Century." *Natural Hazards Review* 1 (4): 222-225.

Sylves, Richard T. and William L. Waugh. 1996. *Disaster Management in the U.S. and Canada: The Politics, Policymaking, Administration and Analysis of Emergency Management*. Charles C. Thomas: Springfield, Ill.

Tierney, Kathleen J., Michael K. Lindell and Ronald W. Perry. 2001. *Facing the Unexpected: Disaster Preparedness and Response in the United States*. Joseph Henry Press: Washington, D.C.

Tribune Staff Reporter. 2004. "Local Officials Continue to Push for FEMA Funds." *The Tribune*, January 7, A1, A6.

United States Geological Survey. 2004. Preliminary Earthquake Report, Magnitude 6.5 – Central California, 2003 December 22 19:15:56.  
<http://earthquake.usgs.gov/recenteqsUS/Quakes,nc4014> . . .





**Address**  
 City of Paso Robles  
 1000 Spring Street  
 Paso Robles, CA 92540  
**Phone**  
 (805) 237-PASO (7276)  
 (805) 237-6565 FAX  
**Hours**  
 Mon-Fri 8am to 5pm  
**E-mail**  
[info@prcity.com](mailto:info@prcity.com)

**City Council**  
**Departments**  
 Administrative Services  
 City Clerk  
 City Manager  
 Community Development  
 Emergency Services  
 Library Services  
 Recreation Services  
 Police  
 Public Works  
**Advisory Bodies**  
**Planning Commission**  
**Press Releases**

**EARTHQUAKE REPAIR FUNDING**

**URGENT HELP NEEDED!**

The damage sustained from the recent earthquake has created a huge financial burden throughout our small community. Although Governor Schwarzenegger declared San Luis Obispo County a disaster area, this does not automatically guarantee FEMA and SBA funding. Citizens are encouraged to contact key elected officials (contact information below) to encourage favorable consideration for a Presidential disaster decree, thus leading to eligibility for federal relief through FEMA and SBA.

The damage in our county seen by the damage assessment teams last weekend **does not meet the threshold for requesting a federal disaster designation for citizens and businesses.** As a result, the most important step for now is that the Individual Assistance (IA) Preliminary Damage Assessment (PDA) teams are coming back for a second look (the IA PDA teams are for citizens and business damages). They will need to see damaged homes and businesses they have not already seen. What they need to see in order for the SBA to make a recommendation are about 150 homes (in the entire county) with major damage. The definition of major damage in this case is a home with uninsured damages which will cost 40% or more of the home's value to repair. Also include businesses with such damage, that the PDA teams did not see last weekend.

The county is asking that residents and business owners report all major structural damage caused by the San Simeon earthquake, in order to receive federal aid. The collected information will be used by state and federal authorities to determine whether the county qualifies for a "federal declaration of emergency."

To report structural damage, call (805) 546-3646.

**State & Federal Representatives**

<b>Governor Arnold Schwarzenegger</b>	Capitol Office State Capitol Building Sacramento, CA 95814	Ph: 916-445-2841 Fax: 916-445-9835 <a href="mailto:governor@govnet.or.ca.gov">governor@govnet.or.ca.gov</a>
<b>State Senator Bruce McPherson D-18th District</b>	Capitol Office State Capitol Room 4081 Sacramento, CA 95814	Ph: 916-445-5843 <a href="mailto:senator.mcpherson@sen.ca.gov">senator.mcpherson@sen.ca.gov</a>
	Santa Cruz Office 701 Ocean Street Santa Cruz, CA 95060	Ph: 831-426-0401
<b>Assemblyman Abel Maldonado</b>	Capitol Office State Capitol Room 4015 Sacramento, CA 94249-0033	Ph: 916-319-2033 Fax: 916-319-2133
	San Luis Obispo District Office 1381 Marsh Street San Luis Obispo, CA 93401	Ph: 805-548-3381 Fax: 805-549-3400
<b>Assemblyman Kevin McCarthy</b>	Capitol Office State Capitol Room 4116 Sacramento, CA 94249-0033	Ph: 916-319-2032 Fax: 916-319-2132
	Bakersfield District Office 4000 California Avenue	Ph: 805-305-2985 Fax: 661-375-3880

HOME SEARCH

ADVANCED SEARCH

**HOT TOPICS**

Click the links below for information:

**Earthquake Information**

- General Plan
- Draft Airport Land Use Plan
- Draft Airport Master Plan Update
- Water Quality Strategic Report
- Wastewater Water Supply Project

What are the City's Population and Demographics? [Find out here ...](#)

Have something to say about the website? Fill out the "Feedback" form and let us know! ...

City Projects out to Bid: [Planholders Lists & Bid Results ...](#)

Find out what job openings the City currently has ...

Date:

To:

Dear

As a resident of Paso Robles, I am sending you this letter on behalf of the local businesses and residents in San Luis Obispo County. Please urge the Federal Government to declare San Luis Obispo County a disaster area. The earthquake related costs to the City of Paso Robles, Paso Robles School District, County Facilities and local businesses and residences are in the millions of dollars.

Essential facilities are crippled. Many homes are severely damaged. The economic burden to address repair, reconstruction, and effectively deal with hazard mitigation is far beyond what the local community can bear.

Local businesses and residents are seeking a Federal Designation to facilitate SBA loans, which are essential in order to rebuild the economy of this community. The local economy of Paso Robles and the long-term effects are yet to be quantified.

On behalf of the business owners and residents of Paso Robles, please urge the Federal Government to declare San Luis Obispo County a disaster area so that we may qualify for the necessary funding to rebuild our community.

Respectfully Submitted,





## Paso Robles Main Street Association

U.S. Representative Bill Thomas  
6500 Palma Ave., Suite #210  
Atascadero, CA 93422  
805-461-1034; [Http://billthomas.house.gov](http://billthomas.house.gov)

Dear Representative Thomas,

Our town of Paso Robles has been forgotten by our representatives, we fear, now that the 6.5 earthquake that demolished our downtown is no longer big news.

We fear that our government officials have lost interest, as we stand here looking in disbelief at the broken, silent rubble in the heart of our town.

Three days before Christmas, our downtown community was a shining example of the heartland of America. The governor of California had declared Paso Robles the City of the Year.

In Washington DC, at this very moment, is a nomination to declare Paso Robles the best example of economic revitalization in the nation. We accomplished this with no state or federal aid whatsoever—just 15 years of hard work with our own hands.

Facing ruin in the 1980s from recession and urban blight, our people fought to revitalize our dying downtown. Little people—senior citizens, schoolchildren, mom-and-pop businesses, just plain old folks—donated their time and dollar bills to save the old town square. Our property owners, volunteers, little entrepreneurs united together to transform our community's downtown district into a thriving success story.

Every store was full. We had a zero vacancy rate. Private property owners invested millions into restoration and refurbishment of their buildings. Dozens of folks invested their life savings into new business start-ups.

Now, ten days after the earthquake, 58 businesses, out of 179 in the downtown district, are shut down under the rubble here.

While the rest of you celebrated Christmas and New Year's, 40 percent of our small mom-and-pop stores have no livelihood whatsoever. Hundreds of employees are going without paychecks. The people who served these little businesses are losing income. The children who would have sat on Santa's lap downtown to share their wishes, instead, stand with their parents at a cyclone fence and stare in disbelief at the silent wreckage where Santa used to sit.

The toll on those mom-and-pop stores is already at \$7 million, with only 15 percent of them able to report in to volunteers manning their own cell phones. Our most stately buildings, which gave our award-winning downtown its historic charm, are threatened with destruction if not already crumbled in the streets.

People from all over the world used to walk these streets and speak of the joy we brought them. Our success story here, our beautiful town, reminded them of the places where they grew up. Music floated through the town square from the bandstand, laughter rose from the sidewalk cafes. We captured the comfort and pleasure of an era gone by.

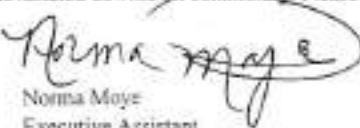
The destruction here is a disaster of mammoth proportions, not just to our stricken businesses, not just to the community that loves its civic living room, but to the hundreds of thousands of visitors who have discovered here the heartland of America.

Can this great nation turn its back on a small town that personifies the American dream? Is so much aid shipped across the seas that none can be spared for a small, suffering American town? Our downtown is the heart of our community, and now that heart is broken.

Please do all you can to bring federal aid to our devastated downtown community. Please do all you can to have Paso Robles declared a federal disaster.

Thank you,

  
Chris Alba  
Executive Assistant  
Paso Robles Main Street Association

  
Norma Moye  
Executive Assistant  
Paso Robles Main Street Association

835 12th Street #D, Paso Robles, CA 93446  
(805) 238-4103 • FAX (805) 238-4029

Email: [mainstreet@rcsa.net](mailto:mainstreet@rcsa.net) • Website: <http://www.pasoroblesdowntown.org>

BARBARA BOXER  
CALIFORNIA

COMMITTEES:  
COMMERCE, SCIENCE,  
AND TRANSPORTATION  
ENVIRONMENT  
AND PUBLIC WORKS  
FOREIGN RELATIONS

## United States Senate

MAINT SENATE OFFICE BUILDING  
SUITE 112  
WASHINGTON, DC 20510-0505  
(202) 224-3559  
<http://www.senate.gov/boxxer>

December 23, 2003

Nils Diaz  
Chairman  
Nuclear Regulatory Commission  
1 White Flint N. Bldg.  
11555 Rockville Pike  
Rockville, MD 20852

Dear Chairman Diaz:

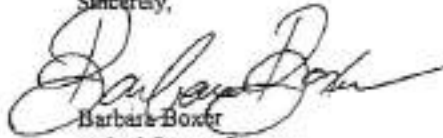
I am writing to you to urge that the Nuclear Regulatory Commission undertake an emergency inspection of Diablo Canyon Nuclear Power Plant. I am concerned that the 6.5 magnitude earthquake which struck the area yesterday may have caused damage to the plant that has not yet been detected.

I have been advised that a serious earthquake could cause structural damage to the underlying foundation of the plant's reactors. I request that, as part of your work, you inspect the foundation as well as the cooling tubes and other piping in the facility.

I am sure that Californians would feel more secure knowing that the Diablo Canyon plant has been inspected. It is important to rule out any damage and therefore any increased risk that may have been caused by the earthquake.

I urge you to act quickly. We must ensure that all facilities are safe. I will contact you in the next few days.

Sincerely,



Barbara Boxer  
United States Senator

1700 MONTGOMERY STREET  
SUITE 240  
SAN FRANCISCO, CA 94111  
(415) 423-2000

812 NORTH SPRING STREET  
SUITE 174A  
LOS ANGELES, CA 90012  
(213) 894-0000

301 T STREET  
SUITE 7-010  
SACRAMENTO, CA 95814  
(916) 448-3100

1130 O STREET  
SUITE 2400  
FRESNO, CA 93721  
(509) 437-1109

400 S STREET  
SUITE 1240  
SAN DIEGO, CA 92101  
(619) 235-3584

201 NORTH C STREET  
SUITE 310  
SAN JOSE VALLEJO, CA 94589  
(925) 888-8525

PRINTED ON RECYCLED PAPER

BARBARA BOXER  
CALIFORNIA

COMMITTEE  
ON COMMERCE, SCIENCE  
AND TECHNOLOGY  
ENVIRONMENT  
AND PUBLIC WORKS  
CONSUMER RELATIONS

## United States Senate

HART SENATE OFFICE BUILDING  
SUITE 112  
WASHINGTON, DC 20510-6905  
(202) 824-3553  
scholar@boxer.senate.gov  
<http://boxer.senate.gov>

January 5, 2004

The Honorable Arnold Schwarzenegger  
Governor of California  
State Capitol  
Sacramento, CA 95814

Dear Governor Schwarzenegger:

It has been two weeks since an earthquake struck San Luis Obispo County and portions of Santa Barbara County. I am writing to join Congresswoman Lois Capps in urging that you request federal disaster designation from the Department of Homeland Security's Federal Emergency Management Agency and the Small Business Administration.

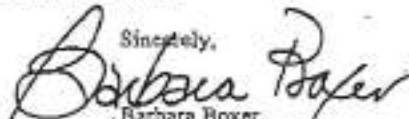
Your visit to Paso Robles and declaration of a state emergency on December 23 was greatly appreciated by local officials and residents. Since then the estimated damage has continued to grow, as areas farther from the epicenter of the quake have been inspected and as newly discovered damage has come to light. Increasingly, it appears that the initial estimate of \$200 million in damages may be grossly low.

My staff have been in San Luis Obispo County over the past two weeks and we are increasingly hearing from elected representatives, business owners and residents regarding the devastating impact of the quake. Official resolutions requesting a federal declaration have come from the County of Santa Barbara, the City of El Paso de Robles, the City of Santa Maria and the City of Guadalupe. It is clear that our constituents need help now to address their personal and economic losses.

As I have related to you in the past, I look forward to working with you on behalf of all Californians. Right now, thousands of Californians are struggling in the aftermath of this serious earthquake. If you will request federal disaster designation, I will do everything in my power to ensure that designation is granted in a prompt manner, and that federal agencies respond promptly.

Thank you for your attention to this matter.

Sincerely,

  
Barbara Boxer  
United States Senator

1700 MONTGOMERY STREET  
SUITE 249  
SAN FRANCISCO, CA 94111  
(415) 405-0190

315 N. SPRING STREET  
SUITE 1140  
LOS ANGELES, CA 90012  
(213) 894-8900

901 F STREET  
SUITE 3-520  
SACRAMENTO, CA 95814  
(916) 446-8187

1130 O STREET  
SUITE 3450  
IRVINE, CA 92714  
(949) 497-5199

506 O STREET  
SUITE 5040  
SAN DIEGO, CA 92101  
(619) 234-2666

301 NORTH V STREET  
SUITE 310  
SAN BERNARDINO, CA 92401  
(909) 888-8525

PRINTED ON RECYCLED PAPER

BARBARA BOXER  
CALIFORNIA

COMMITTEE  
COMMERCE, SCIENCE  
AND TRANSPORTATION  
ENVIRONMENT  
AND PUBLIC WORKS  
FOREIGN RELATIONS

## United States Senate

HART SENATE OFFICE BUILDING  
SUITE 112  
WASHINGTON, DC 20510-0505  
(202) 224-3553  
<http://www.senate.gov/office>

January 7, 2004

### URGENT

The President  
The White House  
Washington, DC

Dear Mr. President:

On December 22, 2003 an earthquake, with a magnitude of 6.5, struck San Luis Obispo County and surrounding areas. Many areas within San Luis Obispo County have experienced massive damage. Downtown Paso Robles suffered serious damage, particularly in its historic district. Two fatalities occurred in Paso Robles and numerous people were injured. Other communities also experienced extensive property damage. Historic Atascadero City Hall sustained an estimated \$20 million in damages. Public buildings, commercial buildings and residences were affected with total damage estimated to be well in excess of \$200 million.

Governor Schwarzenegger has proclaimed a state of emergency in both San Luis Obispo and Santa Barbara counties and requested that you issue a major disaster declaration for the affected areas.

I urge you to act immediately on his request so that all possible federal assistance can begin flowing.

Thank you for your prompt response.

Sincerely,



Barbara Boxer  
United States Senator

1700 MONTGOMERY STREET  
SUITE 540  
SAN FRANCISCO, CA 94111  
(415) 423-8100

310 NORTH BRAND STREET  
SUITE 1749  
LOS ANGELES, CA 90013  
(213) 694-3000

301 Y STREET  
SUITE 1-300  
SACRAMENTO, CA 95814  
(916) 443-2787

1100 O STREET  
SUITE 1400  
FRESNO, CA 93721  
(202) 497-5100

300 Y STREET  
SUITE 2040  
SAN DIEGO, CA 92101  
(619) 556-2884

201 NORTH W STREET  
SUITE 210  
SAN PETERSBURG, CA 90401  
(707) 864-0525

PRINTED ON RECYCLED PAPER

## Building Tag Explanation

### Red Tag

- No entry; structure has sustained serious damage and is unsafe.
- Structure to be inspected by property owner's engineers for recommendations to mitigate hazards in allowing limited building entry.
- Resulting restoration/shoring/demolition plans to be submitted to the Building Division for processing (historic building demolition proposals go directly to City Council for consideration).
- Signed liability waiver must be on file.
- All work to be performed by privately hired contractors (no additional City staff work will be done).
- No business owner entry until all privately hired contract work has been completed and building re-tagged as yellow by the Building Division.
- No additional merchandise or business record recovery work will be done by the City.

### Yellow Tag

- Structure has sustained damage and its safety is questionable
- Building to be inspected by property owner's engineers and an assessment of structural integrity forwarded to City Building Division.
- Structure may be entered by licensed design professionals and business/building owners to effect those changes necessary in making the building safe.
- No admittance to the general public.
- Plans/specifications (as prepared by licensed design professionals) for repair need to be filed with the Building Division.
- Building Division will expedite the review process and issue any necessary permits.
- Upon completion and inspection of any necessary repairs, the "yellow" condition will be removed and full access allowed.
- Buildings not requiring repair for re-entry (as determined by design professional) will require review and certification of the electrical and plumbing systems by a licensed contractor prior to any public access or use.
- Signed liability waiver must be on file.
- All work to be performed by privately hired contractors (no additional City staff work will be done).

### Green Tag

- Inspected by professional structural engineers and inspectors.
- No apparent structural hazards were noted.
- No restriction on entry or use.
- Report any unsafe conditions to local authorities; reinspection may be required.

### No Tag

- No known or reported deficiencies.
- No restrictions on entry or use.
- Building/business owner to report the discovery of any unsafe conditions to the Building Division.

*Note: Some red and yellow tagged buildings may have proven unsafe due to neighboring structures' conditions.*



---

**Paso Robles Department of Emergency Services**

---

December 29, 2003

Dear Business/Building Owner:

Your building has been tagged RED by a professional Building Engineer and Building Inspector. They have determined that the structure has been seriously damaged and is unsafe, or is unsafe due to a neighboring building. Do **not**, under any circumstances, enter the structure. Your entry into the structure may result in death or serious injury.

The City of Paso Robles Building Division and the Department of Emergency Services will be re-evaluating your building to determine if limited entry can be made for the purpose of re-inspection and/or vital record retrieval. While we are extremely sensitive to your need to obtain these critical items from your business, we are also concerned for the safety of anyone that may enter.

If it is determined that your building can be re-entered, entry will be limited to ten minutes and subject to the following restrictions:

- Entry limited to contractors and/or structural engineers to assess damage and develop mitigation or repair plans to permit greater access to the building.
- Sign and approved liability waiver on file for all people making entry.
- Entry limited to Emergency Services personnel for retrieval of vital records, possessions, and equipment.
- All entries must be between the hours of 8:00 am and 4:00 pm.

It would be helpful if you could develop a list of the most critical items that you would like retrieved from your business. This list should also include a map of your business that indicates the approximate location of the items that you would like retrieved.

The Chamber of Commerce will contact you regarding a re-entry time and date, if entry is deemed appropriate.

The City will make every effort to keep you updated with changes of your building's status. We sympathize with your business disruption and apologize for any inconveniences that may result from our ongoing need to assure public safety.

Sincerely,

Ken Johnson  
Chief