

DISASTER PREPAREDNESS IN A CHANGING WORLD

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Preparing for the Unexpected

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The terms “emergency” and “disaster” are frequently used interchangeably when dealing with the unexpected. However, there is a very real distinction between the two. An emergency is an occurrence that has the potential for a severe impact on the affected entity. A disaster is an occurrence that has a catastrophic impact on the affected entity. All disasters begin as emergencies but not all emergencies become disasters.

In a sense, disasters are relative. The same occurrence affecting two separate entities may not have the same impact. For example, a four-alarm fire in a major city can usually be handled with existing resources. The same fire in a rural community would exceed that community’s resources and require outside assistance. The same event is an emergency to one community and a potential disaster to the other.

A frequent mistake of novice planners is to neglect this idea of relativity and focus solely on common hazards. For example, it is easy to say that a residential community requires an earthquake plan. It is also easy to obtain volumes of earthquake safety materials and work them into a plan. But such a document is nothing more than a “paper plan” unless the planner first answers the question “what would be the effects of an earthquake *on my specific organization?*” This risk analysis is critical because a plan must not only include provisions for immediate response but must address how your organization will survive as a business entity.

It is easy to get distracted by what others claim is the major hazard facing your organization. Since September 11th, billions of dollars have been spent in both the public and private sectors on the prevention of terrorist attacks. In many cases, those dollars have been spent on esoteric equipment and technologies without regard to the basics of physical security. We frequently forget that the goal is not to prevent a terrorist entering a facility but rather to prevent any unauthorized person from entering.

So how does one prepare for the unexpected? To begin with one must have an understanding of just what is at risk. What is your core business and on what functions and vital records does it depend? Are these functions and records safeguarded on a day-to-day basis? Make sure that the basic principles of physical security and business continuity have been applied in your organization. Preventing an emergency is much preferable to responding to one.

Secondly, understand the realities. A major emergency such as an earthquake would severely tax the ability of emergency services to respond. Routine services, such as the 911 number will most likely not operate. Critical infrastructure such as telephone, sewer,

and water systems will be inoperative. Major transportation arteries will be closed or severely disrupted. Emergency services, such as shelter and feeding, may take days to establish. Emergency services will be overwhelmed and will be dealing with immediate safety issues, such as search and rescue and fire fighting. Non-critical services may have to wait until aid from the state and federal governments begin to arrive. Consequently, you should be prepared to be on your own for at least three to five days.

Beyond this, you must consider how a particular scenario will affect your organization specifically. Leaving aside the risk to human life, could the disruption of water systems lead to a major loss in landscaping? Could the disruption of electrical power comprise important electronic records or processes? What happens to your security system if the police can no longer respond to alarms?

Of major concern for emergency planners is the need for housing following a catastrophic earthquake. The Association of Bay Area Government's 2003 report *The Problem* estimates that over 155,000 dwelling units would be uninhabitable in the Bay Area following a major quake along both segments of the Hayward fault. Consequently, measures to prevent damage and to quickly repair damage to the housing stock is essential.

There are four steps you should take to prepare for emergencies:

1. Prepare Yourself - If you are not prepared, you will not be in a position help anyone else. Most jurisdictions now offer some form of Community Emergency Response Team Training (CERT) under the federal Citizens Corps Program. This training provides basic skills on evaluating hazards, light rescue and personal survival. Organizations such as the Red Cross offer similar training. Develop a family emergency plan and stockpile emergency supplies.
2. Prepare Your Facility -You should be aware of any weaknesses inherent in your facility. Has it been retrofitted? Is it up to current codes and standards? Many of tasks that you are required to perform, such as the periodic inspection of fire extinguishers and making sure exits are functional, are crucial in emergencies. You and your staff or tenants should be aware of steps that protect the facility, such as knowing how and when to shut off utilities. Make sure the basics are covered – evaluate physical security and business continuity practices.
3. Prepare Your Tenants - In an emergency, more citizens will be helped by their neighbors than by public agencies. You and your staff or tenants will need to rely on each other. Encourage staff or tenants to take the CERT training and to organize. Sponsor periodic meetings and drills. Distribute preparedness literature.
4. Prepare for Recovery - You should have a plan to conduct safety inspections and to make immediate repairs, such as placing plywood over broken windows or

replacing broken pipes. Remember that local contractors may be affected as well - you may need to work with a contractor outside the Bay Area. Your plan should focus on the critical functions you must be able to perform and the means necessary to sustain those functions for several weeks.

Emergencies are inevitable. However, disasters are not necessarily inevitable. Preparedness through attention to the basics of business continuity and physical security, planning, and organization can prevent most emergencies from becoming a disaster.

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COMMUNITY ASSOCIATION DISASTER PREPAREDNESS

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I. INTRODUCTION

At 5:04 PM on October 17, 1989 the magnitude 7.1 Loma Prieta earthquake struck the San Francisco Bay Area, claiming 62 lives, 3,757 injuries, and leaving more than 12,000 people homeless. Property damage totalled approximately \$5.6 billion, including 1,015 homes and 367 businesses destroyed, with another 23,406 homes and 3,547 businesses damaged according to BAREPP (the Bay Area Regional Earthquake Preparedness Project). The only two larger earthquakes to affect the United States since 1906 were the magnitude 7.5 Kern County quake on July 21, 1952 and the 9.2 great Alaskan earthquake of March 27, 1964.

Experts warn that you can expect to fend for yourself for 72 hours (3 days) while scarce public emergency services are busy attending to the most seriously injured. Are you prepared for Loma Prieta's inevitable successor?

II. COMMUNITY-LEVEL PREPAREDNESS

A. General preparedness.

1. **Risk analysis** by Board members with assistance of qualified outside experts, including fire department officials. Risks to be considered include fire, flood, earthquake, hurricane, tornado, hazardous materials spills, etc. depending upon geographic location of the project.
2. Listing of **community members**.
3. Listing of member **out-of-area emergency contact telephone numbers**.

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4. Listing of possible **community emergency equipment** (e.g. a chain saw, ham radio, cellular telephone, ladders, ropes, bicycles (for communication) etc.).
 5. Listing of **member emergency skills** (e.g. CPR, medical skills, construction skills, etc.).
 6. Inventory and map locations of all **utility shutoff valves** and switches, including gas, electricity and water.
 7. **Paperwork and computer backup systems** and offsite storage.
 8. Advance arrangements and/or coordination with **critical suppliers** (i.e. possible listing of the names and phone numbers of larger nearby apartment buildings, fencing contractor, salvage company, etc.).
 9. Advance arrangements and/or coordination with **emergency response agencies** such as hospitals, the Red Cross, fire stations, etc.
 10. Possible stores of certain **emergency supplies**.
- B. Fire safety considerations.**
1. **Exterior.** Brush setbacks, fire retardant roofing systems, etc.
 2. **Interior.** Fire sprinkler, smoke detector and alarm systems.
 3. **Upgrades** to current fire codes (e.g. roofing systems) in the event of remodel work within the building or project.
- C. Neighborhood emergency assistance teams (NEAT).**
1. **Communications.** Establishes a communication link between the neighborhood (and the Association) and the city (fire department).
 2. **Damage assessment.** Checks for damage after a disaster and reports findings to the communications committee.

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3. **First aid.** Establishes a first aid station and provides basic first aid and psychological first aid.
4. **Safety and security.** Establishes safety after a disaster by turning off gas and water mains when necessary. Rope off hazard areas, remove debris and extinguish minor fires.
5. **Search and rescue.** Coordinates the neighborhood disaster communications system. Performs simple search and rescue for the neighborhood.
6. **Sheltering and special needs.** Establishes care for children, the elderly and handicapped persons (and pets).
7. The **captain** coordinates membership, maintains organization and provides information clearing-house during emergencies. The **co-captain** assists the captain.

III. INDIVIDUAL-LEVEL PREPAREDNESS

A. Preparation of an emergency supplies kit.

1. **Flashlights** with long-life (alkaline) batteries. Have spare batteries and bulbs available. Short-lived chemical lightsticks (e.g. Cyalume) are also convenient to store. Lanterns and candles (with waterproof matches) are useful for outdoor lighting. Do NOT use matches, candles or electrical light switches indoors until you are certain there are no gas leaks.
2. **Portable radio** with long-life batteries. Avoid using telephones for non-emergency calls.
3. **First aid kit**, stored in a waterproof container, and Red Cross or other handbook. If possible, take a CPR and first aid course.
4. **Fire extinguisher**, type ABC (all purpose) for small fires.

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5. **Food** of two types: a 72-hour supply of "carry out" foods such as powdered milk, honey, peanut butter, graham crackers, dried apricots, etc. and a two-week supply of canned or processed foods that have a 6-month + shelf life and are stored in a cool, dark, dry place. Don't forget eating utensils, bottle and can openers!
6. **Water** stored in airtight containers at floor level and rotated once every 6 months. Maintain at least one gallon per person per day, plus purification tablets such as Halazone.
7. **Sanitary supplies**, including paper towels and toilet paper, detergent, disinfectant, garbage can or bucket with tight-fitting lid (for emergency toilet).
8. **Specialty items**, including medications (rotate based on expiration date(s)!), special foods for infants and pets, etc.
9. **Clothing**, including extra eyeglasses (and prescription), sturdy work clothes, comfortable walking shoes, outer-wear including rain gear, boots and ponchos, and blankets/other bedding.
10. **Tools** such as a crow bar, pipe wrench and crescent wrench for turning off gas and water mains. Know where gas, water and electric mains are located! Don't turn off gas unless you smell it or hear it leaking. Don't forget a pair of heavy work gloves and soft-soled walking shoes.
11. **Camp stove** or other cooking equipment for outdoor use, including extra canned or other fuel.
12. **Cash**, since automatic teller machines and credit card verification equipment will not work without electricity. Include a roll of quarters.
13. Important **personal papers and telephone number(s)** of person(s) outside the immediate area to coordinate family contact.
14. **Maps and a compass**, particularly for the auto emergency supply kit, sufficient to allow possible foot travel to a local destination.

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15. **Plastic sheeting and bags** for waste disposal, protection from water and wind, etc.
- B. **Location of emergency supply kits.**
 1. **Home**, in a solidly-framed closet.
 2. **Automobile.**
 3. **Office.**
- C. **Reduce home hazards** by securing water heater, bolting bookcases to the wall, securing large movable appliances, moving beds away from windows and mirrors, purchasing fire escape ladders, smoke detectors and fire extinguishers, etc.
- D. **Inventory belongings**, in writing and/or by video, for post-disaster insurance claim purposes.
- E. Develop an **emergency plan** with household members which includes residence escape routes, a common meeting place outside the home (and an alternate location as well), etc. Be sure to **PRACTICE** the plan, especially with smaller children.

IV. FURTHER INFORMATION

- A. Organizing Neighborhoods For Earthquake Preparedness, California Office Of Emergency Services (OES), Earthquake Program, 101 - 8th Street #152, Oakland, CA 94607, (510) 540-2713, March 1993.
- B. Earthquake Safety Checklist, Federal Emergency Management Administration (FEMA), Natural Hazards Division, 500 C Street SW, Washington, DC 20472, October 1985.
- C. Guide To Repairing And Strengthening Your Home Before The Next Earthquake, California Office Of Emergency Services (OES), Undated.
- D. Surviving The Big One: How To Prepare For A Major Earthquake, Los Angeles Fire Department, videotape available from KCET Video, 4401 Sunset Boulevard, Los Angeles, CA 90027, (213) 666-6500, 1989.

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E. Government agencies ...

The Governor's Office Of Emergency Services
2800 Meadowview Road
Sacramento, CA 95832
(916) 262-1843

California OES Earthquake Program
101 - 8th Street, Suite 152
Oakland, CA 94607
(510) 540-2713

Bay Area Regional Earthquake Preparedness Project
c/o Association Of Bay Area Governments (ABAG)
P.O. Box 2050
Oakland, CA 94604-2050
(510) 893-0702

