



Personal Emergency Preparedness

Preparing Yourself, Your Family and Your Home

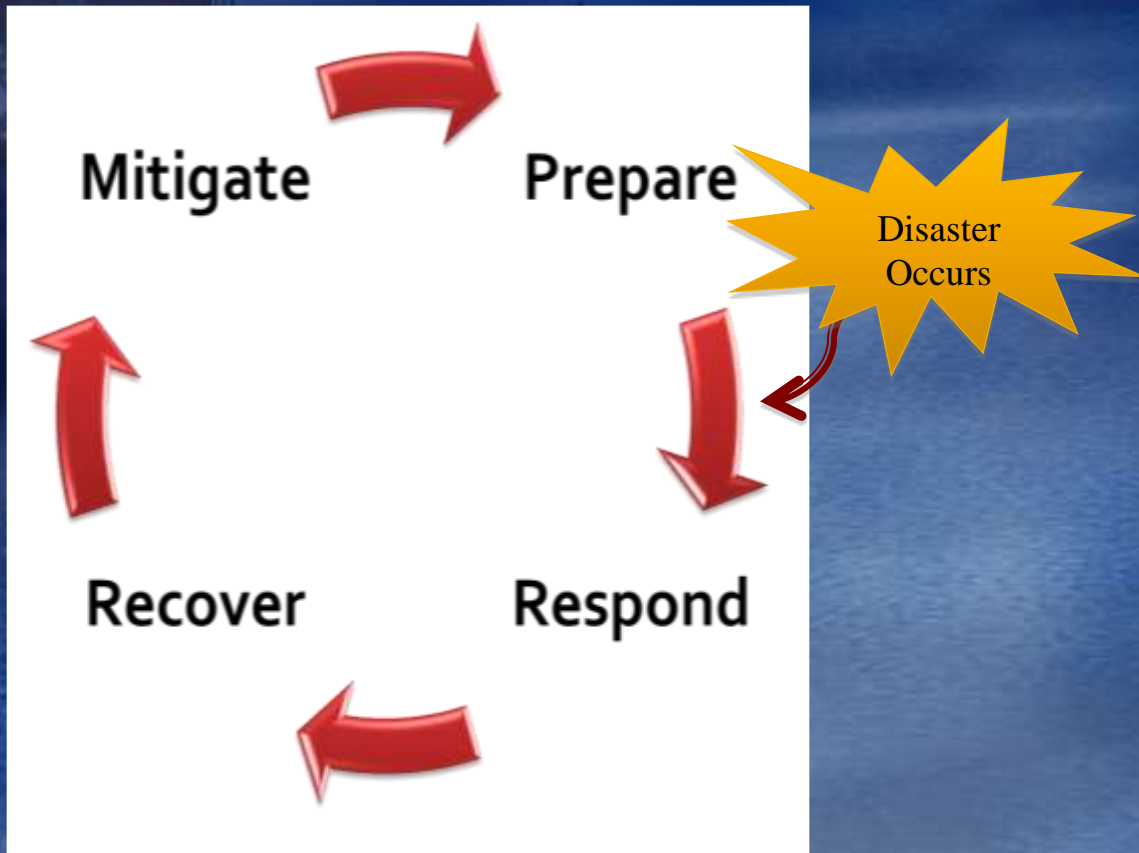
Office of Emergency Management
(650) 723-0448
preparedness@lists.stanford.edu
<http://ehs.stanford.edu>



Agenda

- ◆ Your personal preparedness
 - ◆ What to expect
 - ◆ Making a plan
 - ◆ Preparing yourself and your family
 - ◆ Volunteer opportunities

Where do I start?



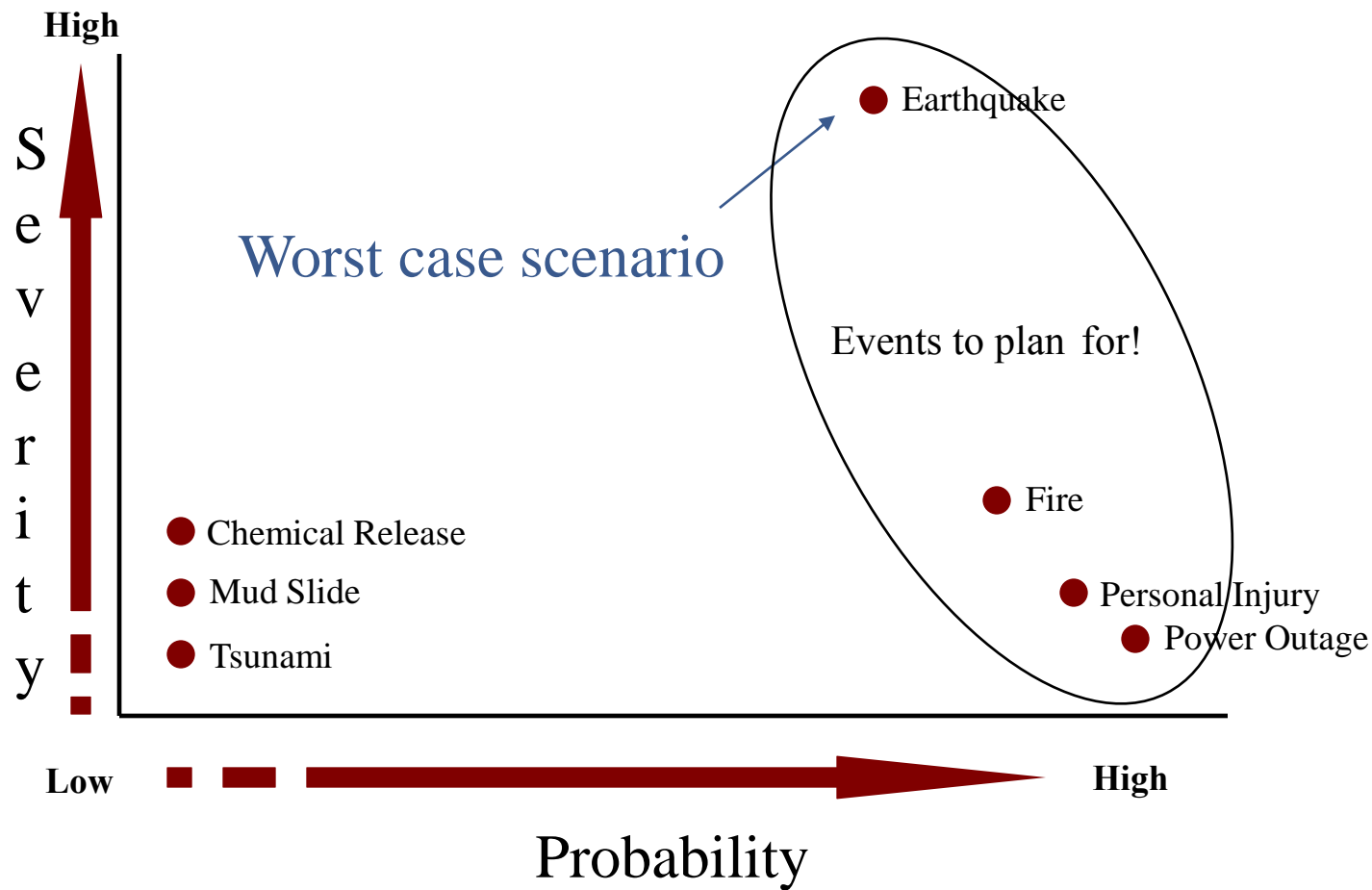
- ◆ Get Informed
 - ◆ Make a Plan
 - ◆ Practice your Plan
 - ◆ Purchase Supplies
 - ◆ Perform Work
 - ◆ Relax
-
- ◆ What is the one thing you will do this weekend?



Be Aware

- ◆ What are my risks? (What could happen to me!)
 - ◆ Fire (local or wildfire)
 - ◆ Earthquake
 - ◆ Power Outage
 - ◆ Severe weather
 - ◆ Flood
 - ◆ Mud slide
 - ◆ Personal Injury/Illness
 - ◆ Chemical Release/Hazardous Material release
 - ◆ Tsunami
 - ◆ Terrorist event
 - ◆ Infectious disease
 - ◆ Etc...

My personal risk assessment



Earthquakes



Probability

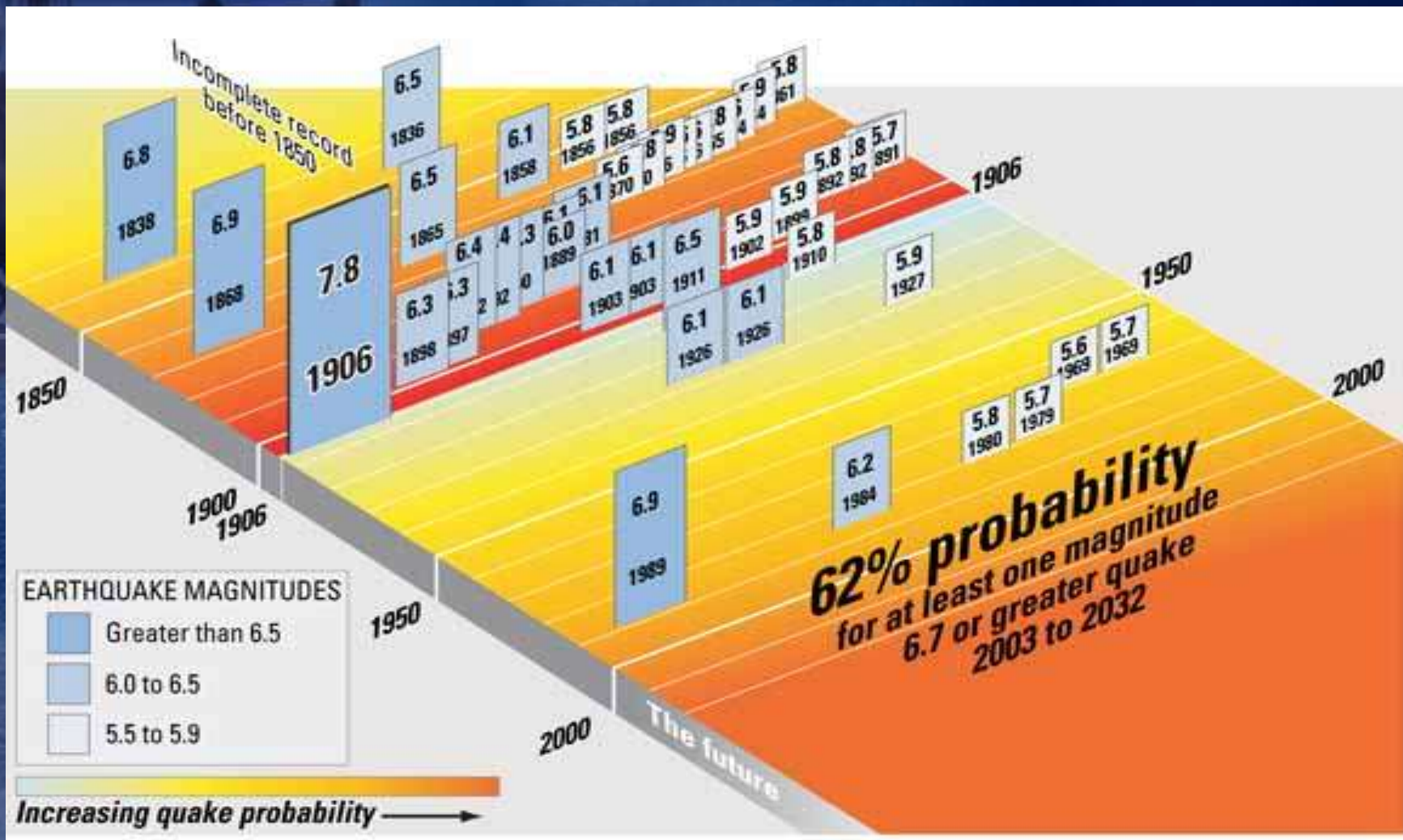
◆ There are three major earthquake faults in the Bay Area

- ◆ San Andreas
- ◆ Hayward
- ◆ Calaveras

◆ 2007 USGS study concluded that there is a 63% chance of one or more 6.7 earthquakes in the bay area before 2036



Sooner or later it will happen!



Reality Check

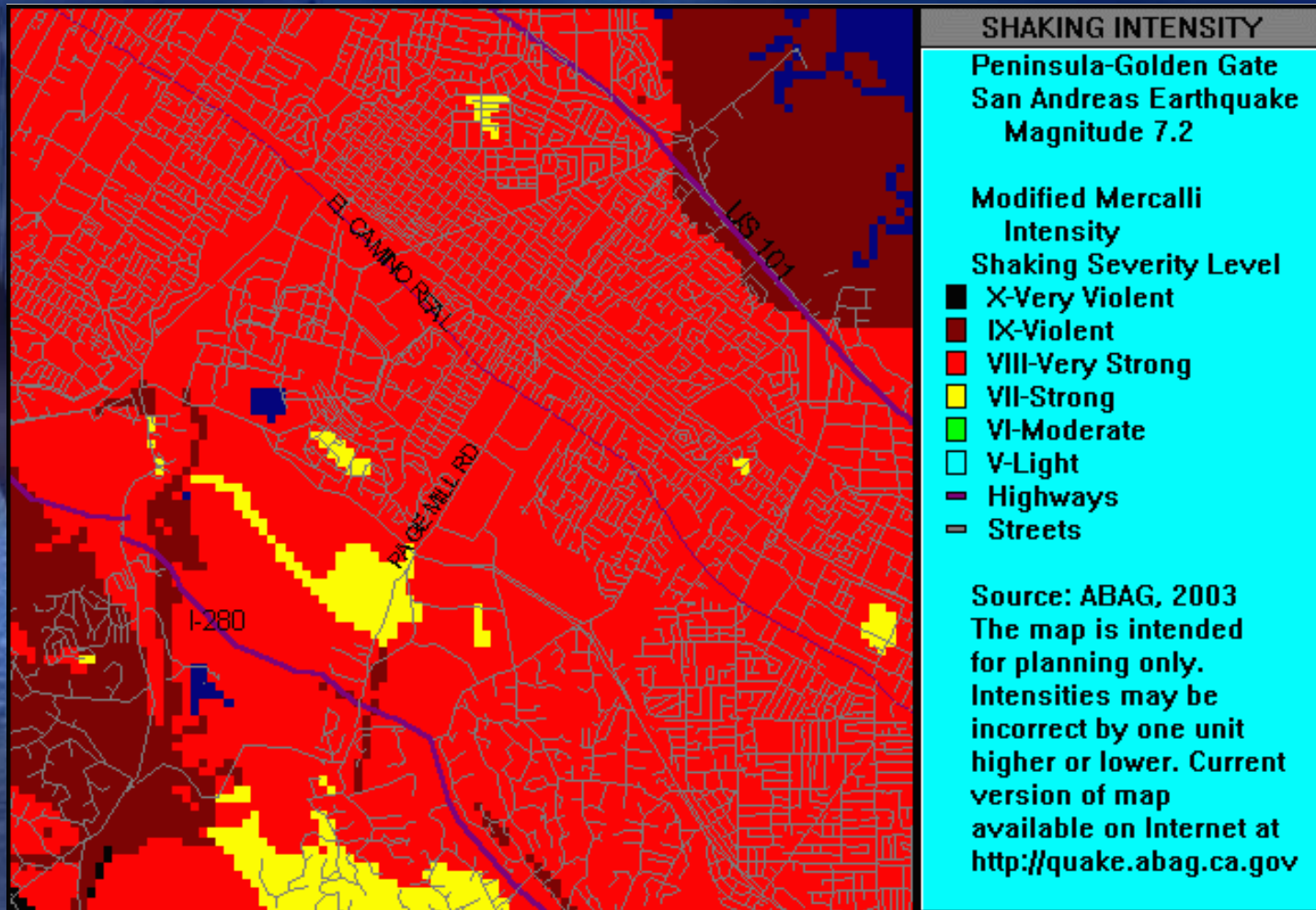
◆ Richter Scale (Magnitude)

- ◆ Relative measure of how much energy is released by an earthquake
- ◆ Does not say anything about how much the ground moves
- ◆ Mitigating factors (location of rupture, depth , soil type)
- ◆ Example:
 - ◆ 1906 Earthquake 7.9 on the Richter scale
 - ◆ 1989 Loma Prieta 6.9 on the Richter scale

◆ Modified Mercalli Scale (Intensity)

- ◆ Measure of ground shaking intensity at a specific location

Reality Check





<http://quake.abag.ca.gov>



Reality Check

- ◆ Be clear about your responsibilities
 - ◆ At home (family, pets, possessions, neighbors)
 - ◆ At work (to your Department, to the University)
 - ◆ In the community

Earthquake Effects

Types of facilities	Number (or extent) of Bay Area facilities with a high likelihood of experiencing damaging shaking in the next 30 years	Percentage of total number of facilities in the nine-county Bay Area
 Hospitals	76	
 Fire, Police, and Local Government	2,970	
 Elementary Schools	987	
 Intermediate or Middle Schools	164	
 High Schools	233	
 Colleges or Universities	62	
 Bridges and Interchanges	2,721	
 Bay Area Rapid Transit (BART) tracks	95 miles (150 km)	
 Roads	18,963 miles (30,350 km)	

Secondary Effects

- ◆ *Aftershocks*
- ◆ Fires
- ◆ Hazardous materials releases
- ◆ Communications disruptions
- ◆ Utility disruptions
 - ◆ Electricity
 - ◆ Drinking Water
 - ◆ Natural Gas
 - ◆ Gasoline and Diesel
- ◆ Dam failures
- ◆ Landslides
- ◆ Liquefaction
- ◆ Surface ruptures
- ◆ Tsunamis
- ◆ Civil Unrest
- ◆ Financial disruptions

How are you affected?



- ◆ Collapsed or dangerous structures
 - ◆ Unable to stay in your home (Rubble Dwellers)

- ◆ Road closures and traffic congestion
 - ◆ Road and bridge closures
 - ◆ Public transportation disruptions
 - ◆ Difficulty picking up kids

- ◆ Overloaded 911

How are you affected?



- ◆ Limited / unavailable communication systems
 - ◆ Landline
 - ◆ Cell
 - ◆ Internet

- ◆ Banks and other financial institutions not open
 - ◆ ATMs not operational
 - ◆ Credit Cards useless
 - ◆ Cash is King



Making your Plan

◆ Before the event:

- ◆ Make your plan
- ◆ Create emergency procedures
- ◆ Perform mitigation work
- ◆ What should you have accessible?
 - ◆ Cash (including coins and small bills)
 - ◆ Important phone numbers
 - ◆ Identification
 - ◆ Medical information (physician, medical conditions, medications)
 - ◆ Emergency kit supplies



Making your Plan

◆ Before the event:

- ◆ What should you have somewhere safe? (in a safe or safety deposit box or use the software tool!)

- ◆ Inventory of your possessions

- ◆ Insurance information

- ◆ Home ownership documentation

- ◆ Bank statements, financial documents

- ◆ Wills

- ◆ Tell someone you trust where it is and how to get it

- ◆ Don't plan FOR your family, plan WITH your family

Making your Plan

Personal Recovery Concepts Software

- ◆ Checklists to help gather the necessary information
- ◆ Reports include:
 - ◆ Emergency information
 - ◆ Baby sitter
 - ◆ Elder care
 - ◆ Pet sitter reports
 - ◆ Financial reports and more
- ◆ Includes encryption software able to be used for other documents on your computer as well



The background of the slide is a photograph of the Golden Gate Bridge in San Francisco, taken at dusk or dawn. The bridge's towers and suspension cables are silhouetted against a deep blue sky, with the water of the bay visible below. The overall mood is serene and contemplative.

Making your Plan

Personal Information

In this section, you will record basic information such as your name, address, contact information, government identification numbers and marital status. Although this is basic information, easy access is of immense importance in the event of a crisis. You will also record basic medical information such as your medical provider, medical concerns, known allergies, and the location of important medical records.

Do you have the following items?

The following information, once gathered, will assist you in completing this life area for you and your loved ones.

- Family birthdates, birth places, citizenship and email addresses
- Social Security Numbers
- Drivers License Numbers
- Passport Numbers
- Other identification Numbers and Membership Cards (Military, Medicare, etc)
- Employers Names and Phone Numbers
- Medical Insurance Provider, Phone Number, Identification Number, Group Number
- Current Medications
- Current and Former Physician Names and Contact Information
- Medical Records and their Location

Making your Plan

Financial Information

This section provides a snapshot of your financial situation. You can list assets, debts, income sources and basic expenses. You will also record insurance policies and contact information to facilitate recovery in the event of a financial loss.

Do you have the following items?

The following information, once gathered, will assist you in completing this life area for you and your loved ones.

- Bank Information - Checking, Savings, Safe Deposit Box, Other
- Investments - Stocks, Bonds, CD, Ira 401K, Pension, Brokerage, Other
- Debts - Credit Cards, Auto Loans, Student Loans, Other Debts
- Real Property - Home, Rental, Time Share, Senior Housing, Other
- Personal Property (Major Items) - Automobiles, Motorcycles, Boats, RV, Other
- Personal Property (Minor Items) - Furniture, Jewelry, Art, Collectibles, Other
- Income Sources - Wages, Bonuses, Commissions, Rent, Leases, Alimony, Child Support, Other
- Expenses - Mortgage, Electric, Gas, Water, Cable, Home phone, Cellular, Trash, Pet Care, Other
- Insurances - Home, Vehicle, Renters, Other
- Tax Record History - Federal, State, Business, Estate, Other

Making your Plan

Household Information

This section organizes information necessary to the efficient operation of your household.

Emergency Information

This section provides emergency data information that should be stored both in your organizer and as a separate document.

Legal Information

This section is designed to help you organize your important legal documents, including identification cards, powers of attorney, wills and trusts.

Preview and Print Click on the button to preview the report



Family Members



Print Household



Financial Report



Baby Sitter Report



Print Emergency



Elder Care Report

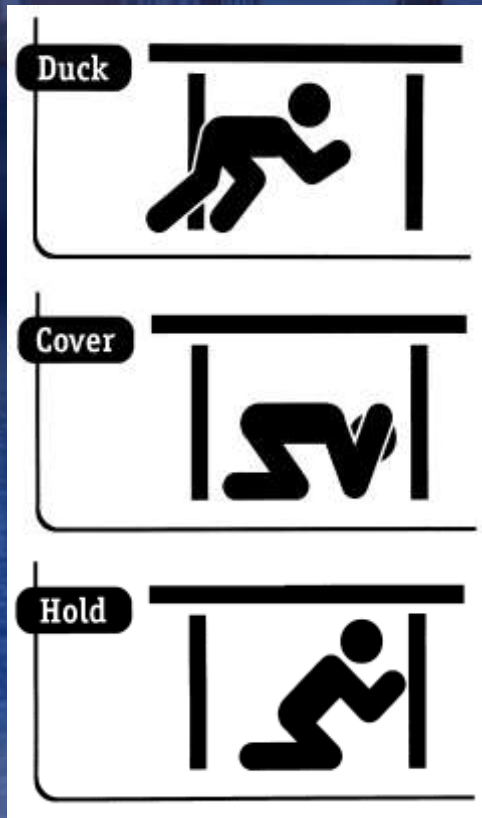


Print Legal



Pet Sitter Report

Making your Plan



◆ Basic Procedures – know them and practice them!

◆ First Aid CPR

◆ Fire extinguisher training

◆ Hazard specific procedures

◆ Fire - stop, drop, roll

◆ Fire - location of extinguishers

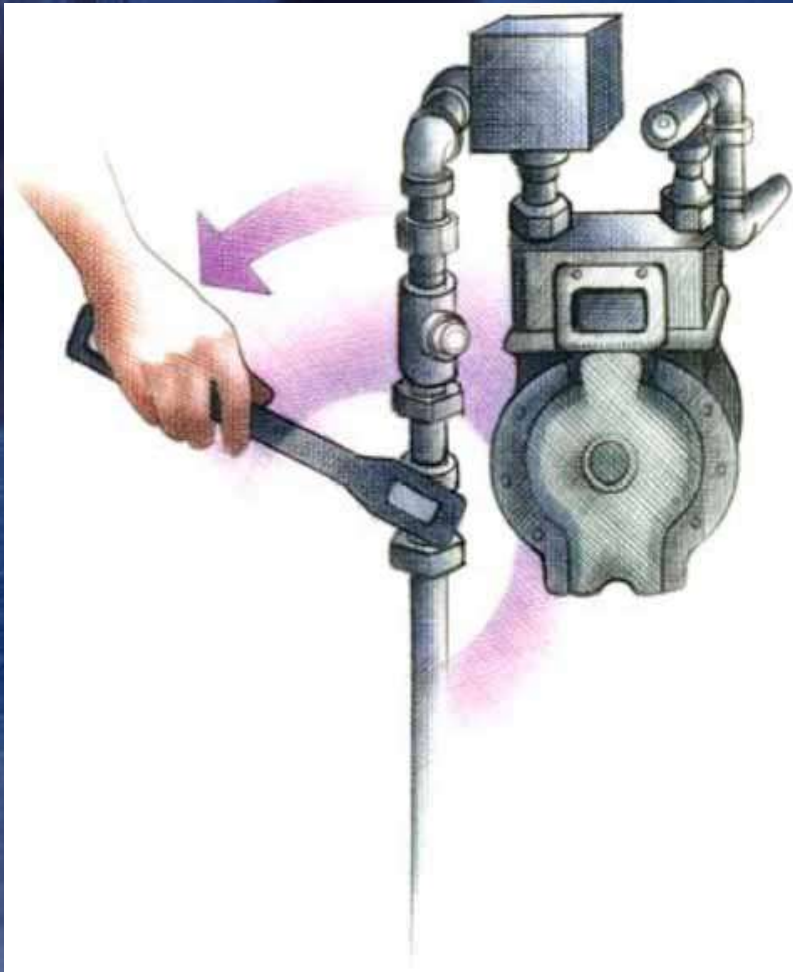
◆ EQ - duck, cover, hold

◆ Infectious disease - cough etiquette, hand hygiene

◆ Hazmat release - Shelter in place

◆ Evacuation routes - home & workplace

Making your Plan



- ◆ Utility shut off
 - ◆ Water / Gas / Electricity
- ◆ Emergency Supplies
 - ◆ Where they are located
 - ◆ Inventory
 - ◆ Multiple locations (home, work, car, school)
- ◆ Transportation
 - ◆ Walking routes
 - ◆ Know alternate routes
 - ◆ Keep *at least* 1/2 tank of gas

Reporting the Emergency

- ◆ Report the Emergency
- ◆ Know the Emergency Numbers to call
 - ◆ (9)-911 In the School of Medicine - 286
 - ◆ Local 7 digit emergency phone for cell phones (in your phone book)
 - ◆ Palo Alto Police 650-321-4433
 - ◆ Menlo Park Police 650-325-4424
 - ◆ Los Altos Police 650-947-2779
 - ◆ Mountain View Police 650-903-6395
- ◆ Be prepared to answer
 - ◆ Your location
 - ◆ Your phone #
 - ◆ Nature of the emergency
 - ◆ Do you (or anyone else) need medical attention
 - ◆ Stay on the line until the operator hangs up. Never hang up first!

In Case of Emergency

◆ In

◆ Case of

◆ Emergency

◆ ICE2, ICE3

A photograph of the Golden Gate Bridge at night, illuminated against a dark blue sky and water. The bridge's towers and suspension cables are visible, extending from the left side of the frame towards the center.

Communications

◆ Emergency Alert System

◆ Local Radio stations

◆ 740 KCBS

◆ 90.1 KZSU

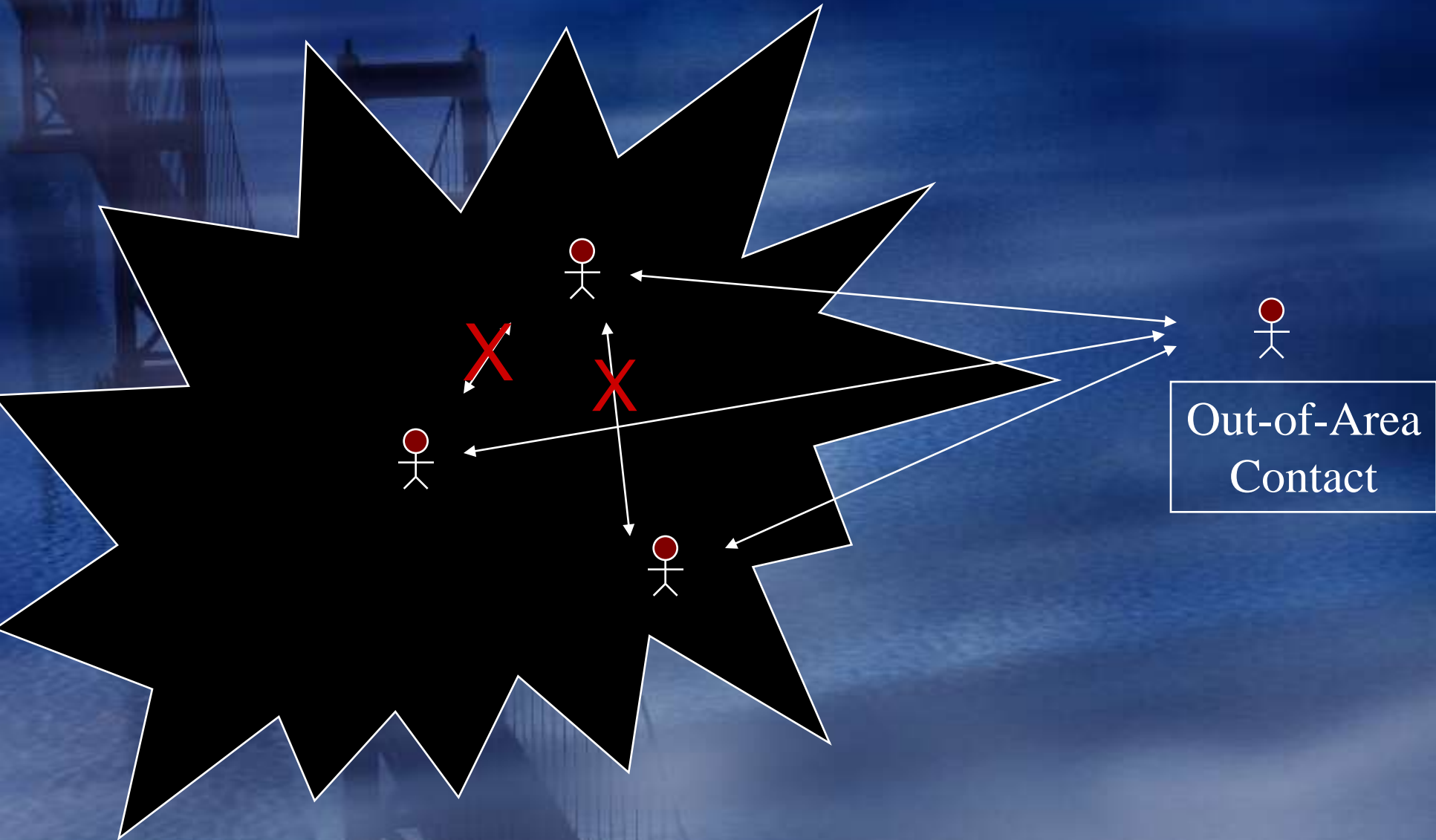
◆ Mass notification - sign up! Get notices by phone, email or SMS text

◆ AlertSU & Outdoor Warning system

◆ Personal communications

◆ Out-of-area contact

Communications Plan





Other Plan Considerations

◆ Reunification plan

- ◆ At work - EAP

- ◆ Local - family, friends

- ◆ Instructions on how long to wait at a particular location. Where will you go next?

- ◆ Leave messages for each other.



Other Plan Considerations

◆ Children


- ◆ Know your school emergency plan
- ◆ Who is authorized to pick up your children?
- ◆ Talk to your children about earthquakes

◆ Aging parents/loved ones

- ◆ If you can not check in on them, who can?

◆ Pets

Planning Assumptions



Question	Assumption
What type of emergency?	Assume earthquake (Also consider other events)
Where will you be?	Home, Office, Vehicle (Other frequent locations)
How long will you be without services?	Experts say to plan for 5 days
How many people?	# of people in your family/office
Do you need to evacuate?	Assume yes and create a Grab and Go kit
What are the conditions?	Assume cold and rainy (if you assume warm and sunny, it won't be!)

Emergency Kits

- ◆ Emergency Kits (Home, Work, Car)
 - ◆ Minimum 3, 5, 7, 10-day supply of food
 - ◆ Water (1 gallon/person/day)
 - ◆ Flashlights, radio, and spare batteries
 - ◆ Extra supplies in work area and car



- ◆ Extra Supplies
 - ◆ Warm clothing, shoes, extra glasses and prescription medications
- ◆ #1 Rule
 - ◆ If you don't have it with you...
It can't help you!!!

Emergency Kit Contents

Qty/Item	Qty/Item	Qty/Item	Qty/Item
1 Headlamp Light	1 Emergency Poncho	1 Leather Palm Gloves LG	1 Toothbrush
1 Dynamo Light, Radio, Cell Charger	4 12 Hour Lightstick GREEN*	1 Tissue Pack	1 Toothpaste
1 Pocket Tool 14 in 1	1 Plastic Whistle w/Lanyard	1 Razor, Disposable	1 Bar Soap 1.5oz
1 Matches, Waterproof 2pk	1 All Purpose 1st Aid Kit 81pc*	1 Shave Cream 1.5oz	1 Wash Cloth
1 Survival Bag	12 Antiseptic Wipe*	1 Deodorant 1.5oz	18 Wet Wipe Towelettes
1 Heat Pack BODY GRABBER*	1 Utility Tape 10 Yard	1 Comb	1 Lotion Hand & Body 4oz
1 Aqua Literz Water*	3 Dust Mask	1 Shampoo / Body Wash 4oz	

*Items in RED expire.

Items for you to add:

Personal Clothing

Food

Medications

Glasses/contacts

Emergency contacts

Batteries

Supplies for children / babies

Items to consider:

Ziploc bags

Trash bags

Calling cards

Safety pins/Zip ties

Battery or solar cell charger

Electrolyte
drinks/powder/tablets

Entertainment (books, games)

Emergency Kit Recommendations



◆ Flashlights

- ◆ Get a good LED light

◆ Batteries

- ◆ Lithium are best (10 yr shelf life)
- ◆ Alkaline are ok (4 yr shelf life)
- ◆ Carbon (Heavy Duty) – Don't do it!!



◆ POTS (Plain old telephone service)

- ◆ Does your phone work when the power is out?

Maintaining Disaster Kits

- ◆ Resupply after use ASAP
- ◆ Keep an inventory
 - ◆ Readily accessible to view kit contents
 - ◆ Add expiration date
 - ◆ Add last date inventoried and by whom
 - ◆ Evaluate if your needs have changed
- ◆ Review every 6 months (when you change your clocks)
 - ◆ *Rotate your water!!!*
 - ◆ Frequency depends on expiration date of supplies
 - ◆ Set specific date and time similar to testing fire alarms

A background image of the Golden Gate Bridge in San Francisco, viewed from a low angle looking up at the towers and cables. The bridge is silhouetted against a blue sky with light clouds. The water of the bay is visible at the bottom.

Maintaining Disaster Kits

- ◆ Inspect all supplies/equipment for general condition
 - ◆ Leakage, pests, holes
 - ◆ Make sure to test all battery operated equipment with the batteries in your kit
- ◆ Make sure everyone using the kit knows how to operate equipment
- ◆ Review emergency plans for updated information or improvements to plan



Preparing your home for Earthquakes

◆ Things to consider (the easy stuff)

- ◆ Restrain your water heater
- ◆ Add lips to bookshelves
- ◆ Add latches to cabinet doors
- ◆ Restrain furniture
- ◆ Restrain equipment

◆ Things to consider (the harder stuff)

- ◆ Bolt the house to the foundation
- ◆ Increase house stability with plywood sheeting
 - ◆ Is it a HOG (House Over Garage)?
- ◆ Chimney safety
- ◆ Reinforce cripple walls



Preparing your home for Earthquakes

◆ Why don't people do it?

- ◆ Too much work

 - ◆ Take it one step at a time

◆ Too expensive

- ◆ Price earthquake insurance and see how expensive that is!

 - ◆ 1953 1,050 sq ft house, 2 bed, 1 bath single story home ~\$1,200/year with a \$50K damage deductible

◆ I don't know how!

This is why!



Do it Right!



Figure 16. Shows an inadequate pony wall bracing that does not meet the requirements.
(Photo by Gary Milici, RetroFitters Inc.)



Testimonials

Loma Prieta Retrofit Success

	Retrofitted?	Cost to repair after Loma Prieta
210 Elm Street	Yes	\$5,000
214 Elm Street	No	\$260,000

The homes were built by the same builder, with identical materials, using the same construction techniques, and they were located on the same street corner.



Testimonials

Northridge Home Retrofit Success

“A family spent \$3200 in 1993 retrofitting their home built in 1911. None of their neighbors did any work. When the 1994 Northridge earthquake hit, this home was the **only one** on both sides of the street for two blocks that was not damaged.” *James Russell, Codes Consultant*

A photograph of the Golden Gate Bridge at night, with the bridge's towers and suspension cables illuminated against a dark blue sky and water. The bridge spans across the water, and the lights create a shimmering reflection on the surface.

Websites Worth Your Time

◆ Earthquake information

- ◆ quake.wr.usgs.gov

- ◆ quake.abag.ca.gov/mapsba.html

◆ Home EQ retrofit guidance

- ◆ <http://www.sanleandro.org/depts/cd/bldg/retrofit/handbook.asp>

◆ General Preparedness

- ◆ redcross.org

- ◆ ready.gov

- ◆ 72hours.org

- ◆ emergency.cdc.gov

- ◆ citizencorps.gov

Volunteer and Training Opportunities

◆ On Campus

- ◆ Your Department Response Team
- ◆ Building Assessment Team (BAT Team)
- ◆ Stanford Community Emergency Response Team (SCERT) <http://scert.stanford.edu>



◆ Off Campus

- ◆ Red Cross
- ◆ Community Emergency Response Team (CERT)
- ◆ Palo Alto Neighborhood Disaster Assistance (PANDA)
- ◆ ARES/RACES Amateur Radio emergency communications team



What is one thing you will do this weekend?

- ◆ Make an emergency kit?
- ◆ Perform a home inspection?
- ◆ Start your home inventory?
- ◆ Talk to your kids?
- ◆ Others?...



Relax