A Message to Residents

Our county has at least five active fault systems. The Hayward Fault, which passes through western Contra Costa County, causes the greatest concern. Scientists have estimated there is a 90 percent chance that a major earthquake will occur along the Hayward Fault within the next 30 years.

The damage caused by a major earthquake will severely restrict communications, transportation and utilities, and will isolate many areas of the county. Emergency service response personnel will likely be overwhelmed by calls for assistance and unable to respond to many request during the first 3-days of the disaster. Do not call 9-1-1 unless you have a real emergency. The ability of individuals, families and neighbors to help themselves and each other cope during this time will be crucial to their recovery.

Preparedness activities that are undertaken NOW will provide individuals and families with a greater sense of security and self-sufficiency when earthquakes or other disasters happen.

At the time of a disaster, shelter locations and other vital information will be announced over major radio stations including KCBS 740AM and KSJO 92.1 FM. Remember to keep a portable radio and extra batteries stored in your emergency supplies kit so you will be able to obtain emergency information in the event of a power failure.

ARE YOU READY? GETTING STARTED

Meet with your family

- Discuss the types of disasters that could occur.
- Explain how to prepare and respond.
- Discuss what to do if advised to evacuate.
- Practice what you have discussed.
Earthquake: Duck, Cover & Hold

No matter where you are, know how to protect yourself and your family during an earthquake. Practice taking cover as if there were an earthquake and learn the safest places in your home or at work. You should practice getting out of your home, as well as your work place. Check to see if the planned exits are clear and if they can become blocked in an earthquake. You should also practice turning off your electricity, gas and water. Know how to turn off the gas, but do not practice this step. In the event of an earthquake, once you turn off your gas, only your utility company should turn it back on for safety reasons.

DUCK

Duck or drop down on the floor

COVER

Take cover under a sturdy desk, table or other furniture. If that is not possible, seek cover against an interior wall and protect your head and neck with your arms. Avoid danger spots near windows, hanging objects, mirrors or tall furniture.

HOLD

If you take cover under a sturdy piece of furniture, HOLD on to it and be prepared to move with it. Hold the position until the ground stops shaking and it is safe to move.

TIPS

- When in a **HIGH-RISE BUILDING**, move against an interior wall if you are not near a desk or table. Protect your head and neck with your arms. Do not use elevators.

- When **OUTDOORS**, move to a clear area away from trees, signs, buildings, or downed electrical wires and poles.

- When on a **SIDEWALK, NEAR BUILDINGS**, duck into a doorway to protect yourself from falling bricks, glass, plaster and other debris.
• When **DRIVING**, pull over to the side of the road and stop. Avoid overpasses and power lines. Stay inside your vehicle until the shaking stops.

• When in a **CROWDED STORE OR OTHER PUBLIC PLACE**, move away from display shelves containing objects that could fall. Do not rush for the exit.

• When in a **STADIUM OR THEATER**, stay in your seat, get below the level of the back of the seat and cover your head and neck with your arms.

### HOME SAFETY CHECKLIST

• Remove heavy artwork, lighting or other objects from above headboards.

• Move beds away from windows or large mirrors.

• Secure large items that might topple onto beds.

• Secure bookshelves, grandfather clocks and other tall furniture that could topple during an earthquake.

• Remove unsecured decorative pottery, speakers and other heavy objects from high shelves or ledges.

• Check chimneys, roofs, walls, and foundations for stability. Make sure your house is bolted to its foundation.

• Provide appropriate emergency ladders for safe exit from a two-story house and advise all family members of where it is stored.

• Identify “safe places” in your home, which may include hallways, doorways and under large tables or desks.

• Examine hot water heaters to make sure they are securely fastened to the wall.

• Place pesticides in a secure container, which would minimize spillage.

• Establish a plan to replace batteries in smoke detectors.

• Establish a plan to rotate food and replace water.
• Secure kitchen cupboards and medicine cabinets.

• Identify escape routes from home for each family member.

• Determine where turnoff switches and valves are for utilities, including gas, electricity and water. Show responsible family members how and when to shut off water, gas and electricity at main switches.

• Identify a meeting place outside of your house for family members to congregate, should you need to evacuate. Also pick a place outside your neighborhood in case you cannot return home.

• Review the policy adopted by each of your children’s schools to understand their procedures on the retention or release of students.

• Determine a contact person who can be called outside the State of California if family members are separated in the event of an earthquake.

• Make sure all members of the family learn the phone number of the contract person.

• Discuss with family members what steps would be taken by each family member following an earthquake if family members are separated.

• Make a list of all critical identification numbers such as credit cards, driver’s license, etc. and place these in your safety deposit box.

• Place critical items such as birth certificates, automobile pink slips and insurance policies in your safety deposit box.

• Install a smoke detector on each level of your home, especially near bedrooms; test two times each year.

• Contact your local fire department to learn about home fire hazards.

• Learn first aid and CPR. Contact your local American Red Cross chapter for information and training.

• Prepare an inventory of the contents of your home by video taping the contents of each room and place the videotape in your safety deposit box.

*Stocking up now on emergency supplies can add to your safety and comfort during and after an earthquake. Store enough supplies for at least 72 hours.*
DISASTER SUPPLY CHECKLIST

• Blankets/sleeping bags

• Manual can opener

• Emergency phone number list, a list of family physicians and a list of important family information in a zip lock bag

• Cash in small bills, quarters and dimes (ATM machine may not be working)

• Eye Glasses (an extra pair) Contact lenses and supplies

• First-aid kit and manual

• Flashlight and batteries

• Food and water for pets, also include a leash or carrier

• Food requiring little preparation and little or no cooking

• Formula, baby food, bottles, medications, powered milk, and diapers for infants

• Heavy gloves

• Knife (multi-functional)

• Matches and candles

• Prescription drugs such as Insulin, heart and blood pressure, with expiration dates.

• Plastic garbage bags (sanitation)

• Personal toiletries such as soap, shampoo, toothbrush/paste, razor, sanitary napkins, denture needs.

• Plastics cups, plates, utensils, paper towels

• Radio and batteries

• Toilet paper
• Warm clothing

• Water purification tablets/household bleach

• Water-1 gallon per person per day (a week’s supply of water is preferable). Store water in sealed unbreakable containers. Identify the storage date and replace every six months.

• Juice

• Whistle

• Crescent wrench hung near gas meter

• A fire extinguisher that is suitable for all types of fire. Teach your family member how to use it.

• Flashlight and batteries next to bed

• Hard soles shoes under the bed

• Extra pair of house and car keys

• Large trash cans

• Bar soap and liquid detergent

• Tarps and rain ponchos

• Candles and matches (Keep matches in a waterproof container)

• Light sticks

• Garden hose for siphoning and firefighting

• Tent

• Communication kit: paper, pens, stamps

• Heavy-duty aluminum foil

• Camping stove for outdoor cooking (caution: before using fire to cook, make sure there are not gas leaks; never use charcoal indoors)
- Axe, shovel and broom
- Tool kit including a screwdriver, pliers and a hammer
- Coil of ½” rope
- Plastic tape, staple gun and sheeting for window replacement
- Bicycle
- Special items needed for infants, elderly or disabled family members.

**CAR & WORK MINI-SURVIVAL KIT**

A mini-survival kit could make the hours until you get home more comfortable and safe. Items you will want to include in a kit (if you make it yourself) include:

- Snack type food such as Granola Bars, High Energy Bars, Raisins and Peanut Butter.
- Booster cables
- Fire Extinguisher
- Water
- Small first aid kit with essential medication
- Mylar “space” blanket
- Flashlight and extra batteries
- Battery operated AM radio
- Comfortable shoes
- Zip lock bags and toilet paper
- Pair of heavy work gloves
- Pocket knife
FIRST AID KIT

Assemble a first aid kit for your home and one for each car. A first aid kit should include:

- Sterile adhesive bandages in assorted sizes
- 2-inch sterile gauze pads (4-6)
- 4-inch sterile gauze pads (4-6)
- Hypoallergenic adhesive tape
- Triangular bandages (3)
- 2-inch sterile roller bandages (3 rolls)
- 3-inch sterile roller bandages (3 rolls)
- Scissors
- Tweezers
- Needle
- Moistenied towlettes
- Antiseptic
- Thermometer
- Tongue blades (2)
- Assorted sizes of safety pins
- Cleansing agent/soap
- Latex gloves (2 pair)
- Sunscreen

STORAGE OF EMERGENCY SUPPLIES

Some families prefer to store their emergency supplies in one location. Choose a place in your home that would be structurally sound in an earthquake (such as a closet or under a bed). The perishable supplies will remain stable longer if stored in a cool dark location. One suggested method for storing emergency supplies is to place them in a large, covered trash container.

Use perishable food in your refrigerator or freezer before using food in your emergency kit.

SHELF LIFE FOR COMMON FOODS
(Times indicated by months)

- Beverages-powdered……………………………………24
- Biscuits, brownies, muffin mixes………………..………9
- Bouillon cubes or granules…………………………24
- Cake mixes…………………………………………………1-2
- Catsup-unopened………………………………………12
- Cereals (ready to eat)………………………………….6-12
- Cocoa mixes…………………………………………………12
- Coffee, tea…………………………………………………18
- Canned fruits……………………………………………..18
Dried fruits......................................................12
Hard candy and gum.................................18
Honey-tightly covered.................................12
Jams and syrups............................................12
Meat, poultry-canned.................................18
Milk-evaporated and dry...............................6
Pancake mix..................................................6-9
Pasta-tightly covered....................................24+
Peanut butter.................................................9
Pudding mixes................................................12
Potatoes-instant.............................................18
Rice mixes.......................................................6
Rice-white-tightly covered.............................24+
Salad dressing-unopened..............................18
Sauce and gravy mixes.................................6-12
Soup-condensed.............................................12
Tuna and other canned fish..........................12
Vegetables-canned.........................................12

WATER

Water is one of the most important survival necessities after an earthquake or other major disaster. **One gallon per person per day.** A week’s supply is preferable.

STORAGE

Store your water in thoroughly washed glass or plastic containers, such as soft drink bottles or empty bleach containers. Seal water containers tightly, label them and store in a cool dark place. **Replace water every six months.** If you buy bottled water, it will last at least a year.

**NOTE:** It is best to store plastic water containers on top of the contents instead of on the bottom, where they could possibly crack and leak from the weight of heavy objects placed on top of them.

PURIFICATION

If water has been contaminated with debris, strain it, then purify it using one of the following methods:

**BOILING** Boiling is the safest method of purifying water. Bring water to a rolling boil of 3-5 minutes, keeping in mind that some water will evaporate. Let the water cool before drinking. Boiled water will taste better in you put oxygen back into it by poring the water back and forth between two clean containers.

**DISINFECTION** Use regular household liquid chlorine bleach. Add 16 drops of bleach per gallon of water, stir and let stand for 30 minutes. If the water does not have a slight bleach odor, repeat the dosage and let stand another 5 minutes.
**WATER SOURCES IN THE HOME**

- Water drained from the hot water heater may be used provided the hot water heater remains upright
- Water dipped from the flush tank of the toilet. Purity this water before using. Use bowl water for pets. Do not use chemically “blue” water
- Melted ice cubes
- Canned fruit, vegetable juice and liquids from the other canned goods

**UTILITIES**

A major earthquake will break gas pipes, electric lines and water lines. All of these can cause major problems. One of the most devastating results of an earthquake is a gas fed fire. Broken water pipes can cause water damage to your home. Sparks from electric lines can cause fires.

- Locate your gas, water and electrical utilities. Mark them on the sketch of your home, which you made for evacuation. Show your neighbors where your meters are and make arrangements with them to turn off your utilities if you are not home and **ONLY** if there is an odor of gas.
- Know how, **and when**, to turn the utilities off.
- Show family members how to turn off all utilities and when to do so.
Gas Meter

Attach an adjustable wrench, or special gas turn off bar to the gas meter. (You will not want to take time to find one after an earthquake.)

After a major disaster, turn off the gas immediately ONLY IF you hear a hissing sound or smell the characteristic warning odor of gas, or if you notice a large amount of gas being registered on the gas meter.

The main shut off valve is located next to the meter on the inlet pipe, Use a wrench to turn the valve so that it is across the pipe. If your gas meter is painted or rusted, it may be very difficult to turn. You may need something other that a small wrench to get leverage to turn the valve, such as a piece of pipe.

DO NOT USE matches, lighters, open flame appliances, or operate electrical switches until you are sure no gas leaks exist. Sparks from electric switches could ignite gas, causing an explosion.

If gas is turned off, do not turn it back on. Only PG&E can turn the gas back on!

ELECTRICITY
After a major earthquake, if damage warrants you turning off the electricity, shut off the electricity at the circuit breaker, or pull out cartridge fuses. Use battery operated flashlights until all danger of fire is over.

**WATER**

Water may be turned off at either of two locations:

1. At the main meter, which controls the water flow to the entire property.

2. At the water main leading into the home. We recommend that you shut off your water here because it may flow out of the water heater and back into the main line if you do not. Label the water main for quick identification.

**HOW TO STRAP YOUR WATER HEATER**

Wrap steel plumber’s tape around the entire heater at least twice. Then secure the tape to two different wall studs with two-inch or longer lag screws.

Install flexible gas and water connectors.
HOW TO SECURE YOUR TALL OR TOP-HEAVY FURNITURE

How you secure your furniture will depend upon its value, location and your imagination. Below are just a few ideas to help you get started. Secure your furniture by using:

1. “L” brackets, corner brackets or “anodized” aluminum molding to attach tall or top heavy furniture to the wall.

2. Corner brackets or eyebolts to secure items located a short distance from the wall.

3. Attach a wooden or metal guardrail on open shelves to keep items from sliding or falling off.

4. Fishing line can be used as a less visible means of securing an item.

5. Place heavy and or large objects on lower shelves.
STRUCTURAL PREPARATION

FOUNDATION

Foundation mudsills were first required to be bolted down in the 1952 edition of the Uniform Building Code. Homes constructed with building permits issued after March 11, 1954 probably have foundations anchor bolts.

CRIPPLE WALLS

Inspect your house for inadequately braced cripple walls located between the frame and foundation. If they are exposed, they are a weak link in the house construction. Nail plywood sheeting onto the vertical studs to strengthen the walls. Remember to also check the garage, particularly if it is supporting living quarters.
HOW TO SECURE PICTURES, MIRRORS AND HANGING OBJECTS

Secure pictures and/or mirrors by placing angle screws on both sides, the top and the bottom. Then screw these into the studs or secure these with wire through an eye bolt screwed into the stud.

Secure hanging objects by closing the opening in the hook.
TIPS FOR PREPARING CHILDREN

INFANTS AND TODDLERS

For infants and toddlers, special emphasis should be placed on making their environment as safe as possible.

- Cribs should be placed away from windows and tall, unsecured bookcases and shelves that could slide or topple.

- A minimum of a 3-day supply of extra water, formula bottles, food, juice, clothing, disposable diapers, baby wipes and prescribed medications should be stored where it is most likely to be accessible after an earthquake. Also keep an extra diaper bag with these items in your car.

- Store strollers, wagons, blankets and cribs with appropriate wheels to evacuate infants, if necessary. Install bumper pads in cribs or bassinets to protect babies during the shaking.

- Install latches on all cupboards (not just those young children can reach) so that nothing can fall on your baby during a quake.

PRESCHOOL AND SCHOOL-AGE CHILDREN

By age three or so, children can understand what an earthquake is and how to get ready for one. Take the time to explain what causes earthquakes in terms they’ll understand. Include your children in family discussions and planning for earthquake safety. Conduct drills and review safety procedures every six months.

- Show children the safest places to be in each room when an earthquake hits. Also show them all the possible exits from each room.

- Use sturdy tables to teach children to DUCK, COVER AND HOLD.

- Teach children what to do wherever they are during an earthquake (at school, in a tall building, outdoors).

- Make sure children’s emergency cards at school are up-to-date.
• Although children should not turn off any utility valves, it’s important that they know what gas smells like. Advise children to tell an adult if they smell gas after an earthquake.

**TIPS FOR THE ELDERLY AND THOSE WITH SPECIAL NEEDS**

• Eliminate hazards. Make it as easy as possible to get under a sturdy table or desk for protection. Anchor special equipment such as telephones and life support systems. Fasten tanks of gas, such as oxygen, to the wall.

• Be sure to have several flashlights placed around the house. Always keep one by the bed.

• Keep a list of medications, allergies, special equipment, names and number of doctors, pharmacists, and family members. Make sure you have this list with you at all times.

• Keep an extra pair of eyeglasses with emergency supplies.

• Prepare to be self-sufficient for at least three days. Always try to maintain a 3-day supply of your prescription medication. If you use oxygen, keep an emergency supply for 3-days more. Check with your local pharmacy and neighborhood grocery to see if they make deliveries. After a serious disaster, it may be hard for you to get out of your home for several days.

• For medical equipment requiring electrical power, such as breathing equipment and infusion pumps, check with your medical company about a backup power source. This could include a battery pack or generator.

• Keep an extra pair of eyeglasses with emergency supplies.

• Keep walking aids near you at all times. Have extra walking aids in different rooms of the house.

• Keep a whistle or loud bell near by. (To attract attention).

• Keep extra batteries for hearing aids with your emergency supplies. Remember to replace them regularly.

• Find two people you trust who will check on you after an earthquake. Tell them your special needs and show them how to operate any equipment you use. Show them where you keep your emergency supplies. You should also make sure they have a spare key in case you are unable to open the door.
• Your personal attendant or home health agency worker may have problems related to the disaster, and may not be able to help you. Talk with your primary care provider about a back-up plan of how and where to get assistance, if the primary provider is unavailable.

WHAT YOU CAN DO BEFORE, DURING, AND AFTER AN EARTHQUAKE

IMPAIRED MOBILITY

BEFORE

Make sure you can evacuate after a quake. Let your neighbors know you may have trouble getting out. Make evacuation easier by clearing a path, finding alternate routes or securing objects—such as bookcases—that might block your path.

DURING

If you are in a wheelchair, stay in it. Lock the wheels and cover your head with your arms. If you are in bed, or out of your wheelchair, stay put and cover your head.

AFTER

If your are trapped, do anything to attract attention. If you’ve previously asked neighbors, they will be looking for you. If you need help to evacuate or to take other safety measures, ask, and of course, help others if you can.

DEAF OR HEARING IMPARIED

Telephone lines will be out; your teletypewriter will be useless. If electrical power is out, communicating in the dark will require a flashlight.

BEFORE

At home, make sure you have a flashlight, pencil and pad next to your bed. Ask a neighbor to be your source of emergency information as it comes over the radio. Store extra hearing aid batteries at home and at work.

DURING

Watch for falling debris and moving objects. Find cover
AFTER

Get the attention of others. Knock on the doors or hit objects together to let others know you are there. Lights may be out, so use a flashlight.

BLIND OR VISION IMPARIED

BEFORE

Have an extra cane at home and at work. Things will be changed because of the earthquake and you will need a cane, even if you have a seeing-eye dog.

DURING

If you feel the ground move assume it is an earthquake and seek cover under heavy furniture or in a doorway, away from walls on the outside of buildings. Drop to your knees and protect your head with your arms.

AFTER

If you hear objects falling, there will probably be obstructions around you. Ask other for help. Use your cane. If you are trapped, make noise to alert others. If electricity fails after an earthquake, sighted people may not be able to find their way. Experience has shown that when this happens, the blind can assist them and save lives.

TIPS FOR PET OWNERS

When preparing your home for an earthquake, don’t forget to include your pets on the list. They will depend on you even more after an earthquake to take care of them and their needs.

- Make sure your pets are wearing up-to-date ID tags.
- Store enough food and water to last for 3-days, preferably, one week. Prepare a shelter or evacuation kit for your pets, including an unbreakable dish, veterinarian records, a restraint (leash or pet carrier) and medication with instructions.
- Arrange for a neighbor to take care of your pets if you are not able to get home after an earthquake.
• Do not try to hold onto your pet during the shaking. Animals will instinctively protect themselves and hide where they are safe. If you get in their way, even the nicest pets can turn on you.

• Be patient with our pets after a quake. They get stressed just like people and need time to readjust. They may disappear for sometime, but they generally show up again with things have calmed down.

• If you evacuate, find a safe place for your pets ahead of time. Many evacuation shelters do not accept pets, except for service dogs, so compile a list of kennels, veterinary offices, or friends and relatives who may be able to care for your pets in an emergency.

• If you do not evacuate, keep your dogs on leashes and cats or other animals in carriers, and find a safe place in your home where you can stay together.

• Have an airline-approved carrier for each dog, cat or other pet, with a photo, vaccination records and any registrations.

The information contained in this brochure is intended as a guide and is not all-inclusive.
For more information contact:

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