1.1 *Earthquake*

California is earthquake country! Thousands of earthquakes occur in California each year, but most are too small to be felt. Some cause moderate damage and injuries in a small area. Others can cause regional destruction.

There are three major faults and several minor faults that could impact the SRP. The major faults include the San Andreas Fault near the San Gorgonio Pass, the San Jacinto Fault, and the Elsinore Fault. Each fault has the potential to generate a significant earthquake that could impact the SRP and its communities. Because the San Andreas Fault is the longest fault in the region, it produces the largest earthquakes. Scientists estimate that large earthquakes on the San Andreas Fault occur about every 150 years. The largest earthquake on the southern portion of the San Andreas in recorded history occurred in 1857. The fault ruptured all the way from Parkfield in southern Monterey County to the Cajon Pass in San Bernardino County. Scientists estimate its magnitude was 7.9.

A repeat of this earthquake today would cause extensive damage, deaths and injuries throughout Southern California. Many scientists are even more concerned about the potential for a large earthquake on the southernmost section of the San Andreas (from the Salton Sea through the Coachella Valley to the Cajon Pass) where an earthquake has not occurred since around 1680. In Southern California alone, there are over 300 known faults that may also cause damaging earthquakes. Almost everyone in Southern California lives within 30 miles of one of these faults. When earthquakes on these faults occur in populated areas, the losses can be substantial. The Northridge earthquake in 1994 caused over 60 deaths, more than 9,000 injuries and $40-$42 billion in losses. No one knows when or where such a quake will occur, but everyone can reduce the risk of death, injury and property loss in an earthquake by following the Earthquake Safety suggestions listed below.

Visit **www.earthquakecountry.info** for additional step-by-step information.

1.1.1 Earthquake Safety Checklist

The following steps are excerpted from “Putting Down Roots in Earthquake Country.”
The full text can be viewed and / or ordered at **www.earthquakecountry.info**.

1.1.2 Before An Earthquake

☐ Fix potential hazards in your home

- Install latches on kitchen cabinets
- Secure TVs, stereos, computers and other heavy objects
  - Use putty or museum wax adhesive for smaller items
- Hang mirrors and artwork from closed hooks
- Secure top-heavy furniture and appliances to walls
- Install flexible connectors on gas appliances
- Strap water heaters to the wall per Code
- Store flammable or hazardous materials on lower shelves or on the floor
- Inspect your house and fix any potential weaknesses
  - If any structure needs retrofitting, you may want to consult a professional on the following:

- The framing of your house should be bolted at least every 6 feet to the perimeter of the concrete foundation (every 4 feet in a multistory building)
- Homes with a crawl space should have plywood connecting the studs of the short "cripple" walls
- Larger openings in the lower floor, such as a garage door, should be properly reinforced
- Masonry walls and chimneys should be reinforced
- Have a Family Emergency Plan in place, a First Aid Kit on hand, a sufficient supply of water and your "Go-Bags" (See section 2.2 and 2.3 for details)

SRPET suggests the following tips for an earthquake disaster:

- Practice "***Drop, Cover, and Hold* on**"
- Keep shoes and a flashlight next to each bed
- Learn how to properly use a fire extinguisher

1.1.3 During An Earthquake

- ☐ During earthquakes, ***Drop*** to the floor; take ***Cover*** under a sturdy desk or table and ***Hold*** on firmly
- ☐ If you are in bed, hold on and stay there, protecting your head with a pillow
- ☐ The area near outer walls is very dangerous - do not attempt to go outside during shaking
- ☐ If outside, move to a clear area if you can safely do so; avoid power lines, trees and other hazards
- ☐ If driving, pull over to the side of the road, stop in a safe area and stay in your car until shaking stops

1.1.4 After An Earthquake

- ☐ First check for injuries and damage
- ☐ Administer the ABC's of first aid as necessary
- ☐ Carefully check children or others needing special assistance
- ☐ Do not move seriously injured persons unless they are in immediate danger of further injury (use spinal precaution)
- ☐ Get medical help for serious injuries
- ☐ Check for structural damage
- ☐ If you smell gas, shut off the main propane gas valve (if you turn the propane gas off, you will need a professional to turn it on)
- ☐ Shut off power at the main breaker switch if there is any damage to your house wiring
- ☐ Unplug broken fixtures or appliances because they could start fires
- ☐ Spilled hazardous materials such as household bleach, chemicals and gasoline should be covered with dirt or cat litter
- ☐ Stay away from chimneys or brick walls with visible cracks - do not use a fireplace with a damaged chimney
- ☐ Stay away from downed power lines and objects in contact with them
- ☐ Until you are sure there are no gas leaks, do not use open flames or operate any electrical or mechanical device that can create a spark
- ☐ Turn on your portable or car radio for information and safety advisories
- ☐ Call your out-of-state contact, tell them your status and then stay off the phone
- ☐ Check on the condition of your neighbors

Never use the following indoors:

- Camp stoves
- Gas lanterns or heaters
- Gas or charcoal grills
- Gas generators

These can release deadly carbon monoxide or be a fire hazard in aftershocks.

Note: Shelters will likely be overcrowded during this type of emergency. Do not leave home just because utilities are out of service or your home and its contents have suffered moderate damage. If you do evacuate, tell a neighbor and your out-of-state contact where you are going, and take your Go Bag, first aid kit and other essentials (See Section 4 for additional information).