

## 1.1 **Other Hazards**

Riverside County participated in a multi-jurisdictional Local Hazard Mitigation Plan (LHMP) that was approved by FEMA and the California Emergency Management Agency (CalEMA) in May, 2005. This LHMP provides detailed identification and analysis of the potential hazards in Riverside County.

Additional potential hazards include: Landslides, mudslides, windstorms, tornadoes, heat emergency, cold weather emergency, hazardous materials, bomb threats and terrorism.

### 1.1.1 **Landslides / Mudslides**

When most people think about ground movement, they probably envision images of the ground below them moving from side to side, or up and down, during an earthquake. It is important that residents who live on steep hillsides and in canyons be prepared for landslides.

Areas that are not covered with vegetation, especially following a fire, are more likely to have landslides. This includes sliding, falling and flowing soil, rock, mud, brush and trees, particularly during or after heavy rains. Slow-moving landslides can cause significant property damage, but they usually do not cause injury or death.

Mudslides, however, are much more dangerous. According to the California Geological Survey, mudslides can easily exceed speeds of 10 miles per hour and often flow at rates of more than 20 mph. Because mudslides travel much faster than landslides, they can cause deaths, injuries and significant property damage.

As with any disaster, you will want to have a Family Emergency Plan in place, a First Aid Kit on hand, a sufficient supply of water and your Go-Bag (See section 2.2 and 2.3 for details). SRPET suggests that the following actions be taken to help reduce your risk of death, injury and property losses from landslides, mudslides and other types of ground failure.

For additional information on landslides and mudslides, visit, <http://www.nilesema.com/landslidetips.htm>.

#### 1.1.1.1 **Before the Landslide / Mudslide Checklist**

You can reduce the potential impacts of land movement by doing the following:

- Inspect slopes for increases in cracks, holes and other changes
- Build away from steep slopes
- Build away from the bottoms or mouths of steep ravines and drainage facilities
- Consult with a soil engineer or an engineering geologist to minimize the potential impacts of landslides / mudslides
- Use permanent measures, rather than sandbags, if possible
- Deflect, rather than stop or dam debris flow
- Plant appropriate vegetation to stabilize soil
- Use solutions that do not create problems for your neighbors

#### 1.1.1.2 **Potential Landslide or Mudslide Checklist**

- Monitor the amount of rain during intense storms. More than three to four inches of rain per day, or a half-inch per hour, has been known to trigger landslides or mudslides.

- Look for geological changes near your home:
  - New springs
  - Cracked soil or rocks
  - Bulging slopes
  - New holes or bare spots on hillsides
  - Tilted trees
  - Muddy waters
- Listen to the radio or watch television for information and instructions from local officials
- Implement protection measures when necessary:
  - Anticipate runoff and place sandbags in areas as needed
  - Board up windows and doors
  - Prepare to evacuate if requested to do so
  - Respect the power of the potential landslide or mudslide
  - Remember, landslide or mudslides move quickly and can cause damage and kill
- Prioritize protection measures:
  - Make your health and safety and that of family members the number one priority
  - Make your home the number two priority

### 1.1.1.3 Health Tip

During a landslide or mudslide, water and sewage pipelines may break leading to a contaminated water supply. It is important to listen to your radio or television for the latest news on health and safety updates for the affected communities.

## 1.1.2 Windstorms and Tornadoes

You do not want to be blown away! High winds, particularly the hot, dry Santa Ana winds that visit Southern California, are another force of nature with which residents must reckon. High winds can cause structural and nonstructural damage, down power lines and increase the risk of wildfire. In some isolated canyon areas, Santa Ana gusts can reach speeds of more than 100 miles per hour, increasing the threat. Although tornadoes are more common in mid-western and southern states such as Iowa, Kansas and Texas, Southern California is not immune. The region averages about 20 tornadoes and / or water spouts per year.

According to the National Weather Service, tornadoes usually occur along the coast during the cold of winter, but they can occur during the summer.

As with any disaster, you will want to 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 actions to help reduce your risk of death, injury and property losses from windstorms and tornadoes.

### 1.1.2.1 Before a Windstorm or Tornado Checklist

- Check your home and roof for compliance with local building codes
- Secure antennas, satellite dishes and other roof fixtures
- Trim tree branches in contact with or near the roof and other parts of your home
- Practice evacuation drills
- Make sure your gas tank is full (Power outages might make fuel pumps unusable)
- Purchase a (battery powered) weather alert radio

### 1.1.2.2 During a Windstorm or Tornado Checklist

- Listen to the Emergency Alert System (EAS) on the radio or television station or a weather alert radio. (National Oceanic Atmospheric Administration - NOAA Weather Radio)
- Evaluate the impact of the winds in your area
- Go indoors; avoid areas near windows and doors; take cover under sturdy desks or tables located in an interior room (bathrooms with no windows, closets, and hallways) on the lowest floor of your home; protect your head and neck with your arms
- If outdoors, get away from trees, walls, signs, power lines or other objects that could fall and injure you
- Drive only in a life-threatening emergency

### 1.1.2.3 After the Windstorm or Tornado Checklist

- Check yourself and family members for injuries and treat those with minor injuries
- Only call 911 for those with major injuries
- Keep family members together
- Check for and document any damage:
  - Windows
  - Ceilings, roofs and walls
  - Utilities
  - Trees
  - Power lines
- Stay out of damaged buildings
- Cooperate with local emergency officials

### 1.1.2.4 Health Tip

Windstorms and tornados can irritate your eyes and respiratory system. It is important to stay indoors and use protective eye wear and a dust mask as needed. Also, keep yourself hydrated by drinking water.

### 1.1.3 Heat Emergency

During an average summer, over 400 people across the country die due to heat injuries and dehydration from exposure to the high summer temperatures. Clearly, heat can be a force, particularly in Southern California. Temperatures can exceed 100 degrees Fahrenheit in the suburban valleys and temperatures of 110 degrees Fahrenheit in the low desert areas are not uncommon during the summer and fall. Heat-wave emergencies can strike very quickly. Although sun is necessary for life, exposure to ultraviolet (UV) radiation is potentially dangerous and can damage the skin. Varied burns result from prolonged exposure to UV rays, but some people also may burn from very little exposure. UV rays can significantly keep the skin from compensating for the excess heat.

Overexposure to heat or excessive exercise in the heat can also cause other injuries. The severity of such injuries increases with age; heat cramps in a younger person may be heat exhaustion in a middle-aged person, but may be heatstroke in an elderly person. This occurs because the person has not adapted to the heat and is unable to adjust to changes in the body. The following recommendations are designed to help you avoid heat-related death and injury.

### 1.1.3.1 Before Extreme Heat Checklist

- Install window or air conditioners snugly; insulate if necessary
- Check air-conditioner ducts for proper insulation
- Install temporary window reflectors (for use between windows and drapes), such as aluminum foil covered cardboard to reflect heat back outside
- Weather-strip doors and sills to keep cool air in
- Cover windows that receive morning or afternoon sun with drapes, shades, awnings or louvers (outdoor awnings can reduce the heat that enters a home by up to 80 percent)

### 1.1.4 During Extreme Heat Checklist

- Stay indoors as much as possible and limit exposure to sun
- Stay on the lowest floor of your home out of the sunshine if air conditioning is not available
- Consider spending the warmest part of the day in public buildings such as libraries, movie theatres, shopping malls and other community facilities (check with the Riverside County Community Action Partnership for local Cool Centers, 951-955-4900 or online at <http://www.capriverside.org/>)
- Use fans to increase the evaporation rate of the body
- Eat well-balanced, light and regular meals
- Dress in loose fitting, lightweight and light-colored clothing that covers as much skin as possible
- Protect face and head by wearing a wide-brimmed hat
- Never leave children or pets alone in closed vehicles
- Avoid strenuous work during the warmest part of the day
- When working in extreme heat, take frequent breaks and stay hydrated
- Avoid sudden temperature changes
- Set your air conditioning thermostat between 75 and 80 degrees Fahrenheit - if you do not have an air conditioner, take a cool bath or shower to stay cool
- Drink plenty of fluids even if you are not thirsty
  - Eight to 10 glasses of water per day are suggested
  - Drink even more if you are exercising or working in hot weather
- Use an appropriate sunscreen if you need to go out in the sun

#### 1.1.4.1 Symptoms of Heat Injury

- Sunburn is usually a first-degree burn that involves just the outer surface of the skin. Symptoms include redness and pain
  - Severe cases may cause swelling, blisters, headaches and fever of 102 degrees Fahrenheit or above
- Heat cramps often are related to dehydration
  - Symptoms include increased sweating with painful muscle spasms of the arms, legs and occasionally the abdomen
- Heat exhaustion is the inability to sweat enough to cool you
  - Symptoms include fatigue, weakness, dizziness, nausea or vomiting as well as cold, clammy, pale, red or flushed skin
  - A marked body temperature rise will not occur
- Heatstroke occurs when the body stops sweating but the body temperature continues to rise

- Symptoms include visual disturbances, headache, nausea, vomiting, confusion and, as the condition progresses, delirium or unconsciousness
- The skin will be hot, dry and red or flushed even under the armpits
- This condition is a severe medical emergency that could be fatal

Visit the following web sites for additional information related to heat injury:

<http://www.epa.gov/naturalevents/extremeheat.html>

<http://www.fema.gov/areyouready/heat.shtm>

With heat exhaustion or heatstroke, as with any emergency you will want to 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).

#### **1.1.4.2 Health Tip**

Consult a physician for severe cases or call 911.

#### **1.1.5 Cold Weather Emergency**

Extreme cold and its effects can vary across different areas of the country. Even in regions unaccustomed to winter weather, near freezing temperatures are considered “extreme” cold. Whenever temperatures drop decidedly below normal and as wind speed increases, heat can leave your body more rapidly. These weather related conditions lead to serious health problems. Extreme cold is a dangerous situation that can bring on health emergencies in susceptible people, such as those without shelter or who are stranded or who live in a home that is poorly insulated or without heat.

When winter temperatures drop significantly below normal, staying warm and safe can become a challenge. Extremely cold temperatures often accompany a winter storm, so you may have to cope with power failures and icy roads. Cold related issues can occur inside your home as well. Remember that it does not have to be extreme cold to be dangerous. Many homes may become too cold due to a power failure or because of an inadequate heating system for the weather, etc. The use of alternative heating sources may increase the risk of a household fire. There are steps that you can take in advance for greater safety in your home and in your car.

If you expect to be traveling where extreme cold weather is anticipated, schedule your vehicle for service prior to your trip. Check weather reports and road conditions. Prepare and take preventive measures to defend yourself against extreme cold weather conditions. You may have to cope with power failures, icy roads or an unexpected winter conditions. Most importantly, never leave a child or pet in your vehicle unattended. SRPET suggests you consider carrying the following items when planning a trip in cold weather.

##### **1.1.5.1 Cold Weather Emergency Vehicle Supply Checklist**

- Food and water (See section 2.2 and 2.3 for details).
- Blankets
- First aid kit and instruction manual
- A can and waterproof matches (to melt snow for drinking water).
- Windshield scraper
- Flashlight or battery-powered lantern
- Jumper cables

- Road maps
- Mobile phone and charger
- Compass / GPS
- Toolkit
- Paper towels
- Tow chain
- Tire chains
- Battery-powered radio and extra batteries
- Canned compressed air with sealant (for emergency tire repair)
- Brightly colored cloth to use as an emergency signal or battery powered flashers
- Collapsible shovel
- Sand or cat litter (to be used for traction)
- Work gloves

### 1.1.5.2 Health tip

Eating well-balanced meals will help you stay warmer. Drink warm, sweet beverages or broth to help maintain your body temperature. If you have any dietary restrictions, ask your doctor.

### 1.1.6 Hazardous Materials

Your home can be a hazardous material site! Hazardous materials aren't restricted to the highway, a local refinery or manufacturing firms. Motor oil, paint, pool chemicals and other common household products could make your home a potential site, particularly in an earthquake. Strong ground shaking could topple and break bottles and cans containing hazardous materials.

As with any emergency, be sure you have a First Aid Kit on hand (See section 2.3 for details) along with the number for the Poison Control Center (PCC) - 1-800-222-1222 in case a hazardous material emergency occurs.

#### 1.1.6.1 Hazardous Household Products

Hazardous products and substances are classified into four categories based on the property or properties they exhibit. **Corrosive** substances or vapors deteriorate or irreversibly damage body tissues with which they come in contact and erode the surface of other materials. **Flammable** substances are capable of burning in the air at any temperature. **Toxic** substances may poison, injure or be lethal when they are absorbed through the mouth or skin or inhaled into the lungs. **Reactive** substances can produce toxic vapors or explode when they react with air, water or other substances.

- Abrasive cleaners, scouring powders
- Ammonia, bleach-based cleaners
- Batteries
- Chlorine bleach
- Disinfectant, oven cleaners, drain openers and cleaners
- Glass, toilet bowl and window cleaners
- Pool and photographic chemicals
- Rug and upholstery cleaners, floor, furniture or shoe polish
- Air fresheners
- Engine cleaners and degreasers, gasoline, diesel fuel, kerosene, transmission fluid and motor oil
- Hair spray and deodorants

- Paints, primers and stains or varnishes
- Rug and upholstery cleaners and spot removers
- Solvent-based glues and solvents for cleaning firearms
- Wood preservatives
- Antifreeze
- Model paints
- Car wax solvents
- Chemical fertilizers
- Pharmaceuticals
- Fungicides
- Insecticides
- Oil or water based paints
- Mothballs
- Nail polish and remover
- Pet products (flea collars and sprays)
- Animal poisons

*Note:* Avoid mixing chemical products or cleaners. Mixing chemical products or cleaners can cause toxic or poisonous reactions.

### **1.1.7 Disposing Household Products**

There are several ways you can dispose of hazardous household products. Check with your local Hazardous Waste Material collection for additional information.

#### **1.1.7.1 Alternative Cleaning Products**

Several non-hazardous materials are readily available for use in cleaning carpets, dishes, upholstery, windows and other items, deodorizing sinks, as well as removing rust and stains. They include baking soda, cornstarch, lemon juice, soap and water, steel wool and vinegar.

Consider the following tips when you buy household products:

- Read directions and health warnings
- Look for the least-hazardous product
- Purchase child-resistant container
- Use multipurpose cleaners
- Buy only what you need

Consider the following tips when you store household products:

- Use original containers for storage
- Regularly check containers for wear and tear
- Store materials in a cool, dry place
- Separate incompatible products

When using household products, keep in mind the acronym **LIES**:

**L**imit amount of materials stored

**I**solate the products in enclosed cabinets and keep containers tightly covered

**E**liminate unused or unneeded supplies

**S**eparate incompatible materials

Also do the following when you use household products:

- Note and post the number of the local Poison Control Center, 1-800-222-1222
- Read and follow directions carefully
- Use only the amount indicated
- Avoid mixing chemical products or cleaners
- Avoid splashing
- Wear protective clothing, a dust mask and safety glasses
- Work in well-ventilated areas
- Take frequent breaks for fresh air
- Keep away from children and expectant mothers

### 1.1.8 Terrorists Threats

Fear is a normal human reaction to natural disasters and other events that hit suddenly and threaten our safety, our loved ones and our daily lives. Terrorists use this natural reaction to multiply the effect of their actions in order to advance their political or social goals. Until recently, many Americans believed that terrorism only affected other countries. Now we know that it can happen here, but we don't know where or when. Much of the fear caused by terrorism, or the threat of it, is based on this uncertainty: not knowing whether it will hurt us or our loved-ones directly or whether it will target our own community or workplace.

Governmental officials are working hard to find terrorists and to limit their ability to harm Americans. At the same time, there are things that each of us can do to limit the terrorists' ability to frighten us. The terrorists are not in charge. We have control over our peace of mind and can help ensure our safety by taking some of the same actions that we would take to prepare for earthquakes, floods or fires. We can also contribute to the safety of others by becoming more aware of our surroundings and reporting suspicious activities or items to local officials.

Review your company's procedure for dealing with bomb threats. If one does not exist, work with the appropriate personnel to establish a policy or procedure.

Preparedness starts with having a Family Emergency Plan in place, a First Aid Kit, a sufficient water supply and your "Go Bags: (See section 2.2 and 2.3). SRPET suggests the following for a terrorist emergency.

#### 1.1.8.1 During a Terrorist Attack

If you are in a public facility and a terrorist attack is occurs, terrorists are counting on surprise, fear and confusion to add to the impact of their actions. If you realize an attack is underway, gather your strength to pause and think. Look around to see what is happening and what immediate steps can be taken to protect yourself and others around you.

- If there is flying debris, **Drop** down; *take Cover* under something sturdy, and **Hold on** with one hand while protecting your head and neck with the other
- If there is smoke, get near the floor, cover your mouth and nose with a cloth and move carefully toward the nearest exit
- If it is necessary to evacuate, try to do so calmly - look for marked exits and stairways - never use elevators - help others who are moving more slowly or who may be disoriented
- If you are not directly affected by the attack, stay calm, think before you act, encourage others, and comfort children - turn on news radio or television, and listen for official instructions - follow the directions of authorities

### **1.1.8.2 After a Terrorist Attack**

Try to stay calm. Think before you act. Do not let terrorists intimidate many by hurting a few.

- Stay informed. Listen to official reports and instructions on the radio or television
- If officials order an evacuation, cooperate quickly and follow their instructions regarding evacuation routes and shelter locations
- If officials tell you to shelter-in-place, they mean for you to stay inside your home, vehicle or workplace until it is safe to come out (they will provide you with detailed instructions)
- Do not leave your sheltered location or return to the evacuated area until local officials confirm that it is safe to do so
- Implement your family emergency plan, and notify your out-of-state contact of your location and status
- Be aware of the psychological impact that terrorism can inflict, even when it happens to people you do not know personally

### **1.1.8.3 Health Tip**

Acts of terrorism may result in little physical damage, but they can bring fear, confusion and uncertainty into everyday life. It is important to understand that strong emotional reactions to such events are normal. Be sure to re-establish daily routines for work, school, play, meals and rest. Work with the support networks within your community.

### **1.1.9 Bomb Threat Preparedness**

You may receive a strange call or package! Terrorists use violence or the threat of violence to advance their political, social, or religious goals. In recent years, bombs have been a popular weapon for terrorists around the world. Explosive devices can be simple and made at home, or high tech and complex. Bombs can be large or small and easily disguised. They can be thrown into an area, left behind and triggered remotely or activated when they are disturbed. They also can be carried or driven into a target area by a suicide bomber. Most of the bombings in this country are attributed to vandalism or mailbox bombings. Professional terrorists, on the other hand, look for targets that symbolize their causes and that will gain them maximum attention: government buildings, corporations, banks, airports, embassies, cultural landmarks, animal laboratories, abortion clinics and tourist attractions. The Department of Homeland Security (DHS) and law enforcement agencies have taken extensive measures to prevent explosive attacks by terrorists. Public places, airports, critical infrastructure, and governmental facilities have implemented far greater security measures than existed before September 11, 2001.