

# ESP FOCUS

## Floods



### Even without El Niño, it rains in California!

The El Niño phenomenon in late 1998 and early 1999 brought record rainfall to Santa Barbara, Ventura and several other California cities. It also caused 17 deaths and more than \$550 million in property losses statewide.

Even though El Niño has come and gone, it's important that Californians prepare for potential flooding.

Each year, severe storms cause flash floods, contaminate the drinking water supply, disrupt electrical service and damage homes and contents. They also can strand individuals playing near or crossing streams, rivers, flood control channels and intersections.

From 1975-1998, winter storms claimed the lives of 103 residents, caused approximately 600 injuries and more than \$61 billion in property and agricultural losses. The winter storms of 1995 and 1997 alone combined to cause 36 deaths and more than \$3 billion in property losses.

The table below shows how rainfall in several Southern California cities and towns during El Niño compared with their average totals.

City	County	El Niño Rainfall	Average Rainfall
Anaheim	Orange	31.43 in.	14.60 in.
Bakersfield	Kern	14.66 in.	5.72 in.
Bridgeport	Mono	9.88 in.	9.14 in.
El Centro	Imperial	4.94 in.	2.68 in.
Independence	Inyo	8.27 in.	5.27 in.
Los Angeles	Los Angeles	31.01 in.	14.77 in.
Riverside	Riverside	21.41 in.	10.00 in.
San Bernardino	San Bernardino	22.71 in.	16.68 in.
San Diego	San Diego	17.78 in.	9.90 in.
San Luis Obispo	San Luis Obispo	43.98 in.	23.46 in.
Santa Barbara	Santa Barbara	46.99 in.	16.98 in.
Ventura	Ventura	42.70 in.	14.32 in.

Use this information and the recommendations on the reverse side of this Focus Sheet to help reduce your risk of death, injury and property losses from flooding wherever you live, work or play.

*Each month, ESP will examine a different hazard that could affect Californians and offer suggestions on how to reduce their impacts. These hazards are not limited to the month featured in the ESP Focus Sheet and can occur at any time.*



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# JANUARY

## Before the Storm

Be prepared to respond to flooding by taking the following actions before the rains and flooding begin:

- Assemble emergency supply kits for your home and place of work. Include the following items:
  - Flashlights and extra batteries
  - Sandbags
  - Plastic sheeting
  - Plywood
  - Lumber
- Store emergency building materials in a location away from potential flooding.
- Store a seven-day supply of water (at least one gallon per person, per day) in closed, clean containers.
- Teach children not to play in or near rivers, streams or other areas of potential flooding.
- Maintain fuel in your cars; electrical outages might make gasoline pumps inoperable.
- Identify safe routes from your home or work place to high, safe ground. Determine whether you can use these routes during flooding or storms. Be familiar with your geographic surroundings.
- Check with your local public works, building or planning department to see if you live in an area subject to flooding.
- Clear debris and overgrowth from on-site drainage facilities.
- Notify your local department of public works about debris and overgrowth in public drainage facilities.
- Work with neighbors to solve potential drainage problems and to avoid diverting debris onto their properties. Consult a licensed civil engineer if you're in doubt.

## When There's a Storm Warning or Watch

- Relocate valuables from lower to upper floors.
- Be prepared to move to a safe area before flood waters cut off access when local authorities advise.
- Identify an out-of-state contact so that friends and relatives can obtain information about your conditions and whereabouts.
- Disconnect all electrical appliances or turn off electric circuits at the fuse panel or circuit breaker panel before evacuating.
- Shut off gas service at the meter and water service at the main valve.

## During the Storm

- Avoid unnecessary trips.
- Do not drive or walk through moving water.
- Do not "sightsee" or enter restricted areas.
- Stay away from streams, rivers, flood control channels and other areas subject to sudden flooding.
- Move to higher ground if you're caught by rising waters.
- Abandon your car immediately if it stalls. Seek higher

ground. Attempts to move stalled vehicles have caused many deaths.

- Listen to the radio or watch television for information and instructions.
- Use the phone only to report dangerous conditions or emergencies that are life threatening. Report damaged utilities to the appropriate agencies.

## After the Storm

- Listen to the radio or watch television for information and instructions from local officials.
- Call your utility companies to restore service.
- Do not use fresh or canned foods that have come in contact with flood waters.
- Follow the instructions of local officials regarding the safety of drinking water. Boil or purify water if you're in doubt. Pump out wells and test the water before drinking.
- Avoid going into disaster areas.
- Stay away from live electrical equipment in wet areas. Check electrical equipment or appliances that come in contact with water before using them.
- Maintain a safe distance from downed power lines and broken gas lines; immediately report them to the appropriate utility.
- Use flashlights, rather than lanterns, candles or matches, to check on the condition of buildings. Flammables may be present.

## Flood Insurance

Damage and other flooding losses are not covered by most homeowner's insurance policies. However, the Federal Emergency Management Agency (FEMA) offers special flood insurance through its National Flood Insurance Program. Contact your insurance agent or call FEMA at (800) 638-6620 for more information.

*Extracted and adapted from "Be Winter Wise," published by the California Governor's Office of Emergency Services, and "Be Flood Aware," published by the Los Angeles County Department of Public Works.*

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# GETTING IT DONE IN 2001 PREPARING FOR ALL HAZARDS



This action sheet is produced as part of the Earthquake Survival Program (ESP). ESP is an awareness campaign designed to increase individual and home earthquake preparedness. ESP was developed by the County of Los Angeles. The California Governor's Office of Emergency Services (OES); representatives from Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura, and Yuma counties; and representatives from Southern California Edison assist in the development of campaign materials and coordination of the campaign.