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PREPAREDNESS FACT OF THE WEEK

This Week:

THREATS & HAZARDS IN CALIFORNIA *Part 3 of 12*

FLOODING



FOREWARD
By Elizabeth Hall

In my efforts to bring to you preparedness information that is both informative, helpful to the area in which we live and yet interesting without being repeated and overdone to death can be difficult at times. In my search to bring you something different, I came across preparedness information just for Californians. It comes from the California Emergency Management Agency (CalEMA) website. In the next 12 weeks, I'd like to touch on 12 topics we as Californians face. The information is basic and will have added informational links and downloadable materials for your convenience. With so much information packed in each subject, you may want to save or add to your "Favorites".

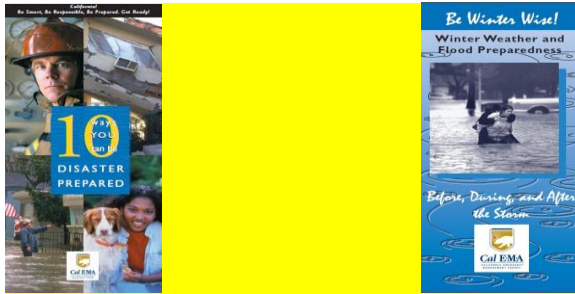
Flooding poses a serious risk to life, property and public health and safety and could cripple the state's economy. Substantially populated counties with vulnerable populations are in flood-prone areas of southern California, the San Francisco Bay Area, the Delta region and the Central Valley. In addition, many urban and rural areas are not protected by levees and are subject to recurring, seasonal flooding by local rivers or streams.

In 2000, over 5 million Californians, or approximately 15 percent of the total population, lived in a Flood Insurance Rate Map (FIRM) designated floodplain. Most of this population resides in expanding urban centers located in floodplains where flooding could result in extensive loss of life and billions of dollars in damages.

Some areas of the Central Valley could experience flood depths of twenty feet or more if a levee fails.

You can check your potential for flood risk by your address or zip code by checking "My Hazards".

Downloadable Brochures (click on photo for pdf)



Ten Ways to be Disaster Prepared

Be Winter Wise

What types of flooding may occur

California's rainy season usually lasts from November to April, bringing heavy flooding and increased flood risks with it; however, flooding can happen at anytime. A string of large wildfires have dramatically changed the landscape and ground conditions, causing fire-scorched land to become mudflows under heavy rain. Experts say that it might take years for vegetation to return, which will help stabilize these areas. The West Coast also has thousands of miles of levees, which are meant to help protect homes and their land in case of a flood. However, levees can erode, weaken, or overtop when waters rise, often causing catastrophic results.

Spring Thaw

During the spring, frozen land prevents melting snow or rainfall from seeping into the ground. Each cubic foot of compacted snow contains gallons of water and once the snow melts, it can result in the overflow of streams, rivers, and lakes. Add spring storms to that and the result is often serious spring flooding.

Heavy Rains

California is at heightened risk for flooding due to heavy rains. This is high risk due to La Niña conditions, which include: snow melts, heavy rains, and additional mudslide risk due to vegetation loss due to recent wildfires. This excessive amount of rainfall can happen throughout the year, putting your property at risk.

Levees & Dams

Levees are designed to protect against a certain level of flooding. However, levees can and do decay over time, making maintenance a serious challenge. Levees can also be overtopped, or even fail during large floods, creating more damage than if the levee wasn't even there.

Flash Floods

Flash floods are the #1 weather-related killer in the U.S. since they can roll boulders, tear out trees, and destroy buildings and bridges. A flash flood is a rapid flooding of low-lying areas in less than six hours, which is caused by intense rainfall from a thunderstorm or several thunderstorms. Flash floods can also occur from the collapse of a man-made structure or ice dam.

Understanding Terminology-

California Specific Weather Watches and Warnings - National Oceanic and Atmospheric Association (NOAA)

Familiarize yourself with these terms to help identify a flood hazard:

Flood Watch

Flooding is possible. Tune in to NOAA Weather Radio, commercial radio, or television for information.

Flash Flood Watch

Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.

Flood Warning

Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.

Flash Flood Warning

A flash flood is occurring; seek higher ground on foot immediately.

Real Time Flood Information

California Data Exchange Center (CDEC) - installs, maintains, and operates an extensive hydrologic data collection network including automatic snow reporting gages for the Cooperative Snow Surveys Program and precipitation and river stage sensors for flood forecasting. CDEC provides a centralized location to store and process real-time hydrologic information gathered by various cooperators throughout the State. CDEC then disseminates this information to the cooperators, public and private agencies, and news media.

Suggested tips for before, during, and after flooding

- **Before a Flood**

To prepare for a flood, you should:

- Avoid building in a floodplain unless you elevate and reinforce your home.
- Elevate the furnace, water heater, and electric panel if susceptible to flooding.
- Install "check valves" in sewer traps to prevent flood water from backing up into the drains of your home.
- Construct barriers (levees, beams, floodwalls) to stop floodwater from entering the building.
- Seal walls in basements with waterproofing compounds to avoid seepage.



SANDBAG how to's is available by clicking [Ehow](#)

During a Flood

- If a flood is likely in your area, you should:
 - Listen to the radio or television for information.
 - Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground.
 - Do not wait for instructions to move.
 - Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly.
 - Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.

If you must prepare to evacuate, you should do the following:

- Secure your home. If you have time, bring in outdoor furniture. Move essential items to an upper floor.
- Turn off utilities at the main switches or valves if instructed to do so.
- Disconnect electrical appliances.
- Do not touch electrical equipment if you are wet or standing in water. If you have to leave your home, remember these evacuation tips:
 - Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
 - Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.

Driving Flood Facts

The following are important points to remember when driving in flood conditions:

- Six inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling.
- A foot of water will float many vehicles.

- Two feet of rushing water can carry away most vehicles including sport utility vehicles (SUV's) and pick-ups.

After a Flood

The following are guidelines for the period following a flood:

- Listen for news reports to learn whether the community's water supply is safe to drink.
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Avoid moving water.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.
- Stay away from downed power lines, and report them to the power company.
- Return home only when authorities indicate it is safe.
- Stay out of any building if it is surrounded by floodwaters.
- Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations.
- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible.
- Damaged sewage systems are serious health hazards.
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.



The Centers for Disease Control and Prevention (CDC) has specific information on what steps should be followed when returning to your residence or business after a flood. Information is available by clicking on the links below:

- [After A Flood](#)
- [Reentering Your Flooded Home](#)
- [Hygiene and Sanitation After a Flood or Emergency](#)
- [Cleaning and Sanitizing with Bleach after an Emergency](#)
- [After a Hurricane or Flood: Cleanup of Flood Water](#)
- [Flood Waters or Standing Waters](#)
- [CDC Emergency Preparedness and Response Home Page](#)

Additional Resources:

[California Department of Water Resources Flood & Safety Topics](#)

FEMA Flood Information - FEMA information as floods are one of the most common hazards in the United States. Flood effects can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states.

Ready America - Floods - Provides additional information on flooding which is the nation's most common natural disaster. It's important to be prepared for flooding no matter where you live, but particularly if you are in a low-lying area, near water or downstream from a dam. Even a very small stream or dry creek bed can overflow and create flooding.

California Hospital Association - Flood Preparedness for hospitals is discussed by the CHA.

For information on protecting or mitigating potential flood damage, please refer to the links below:

California Emergency Management Agency-Hazard Mitigation Section

National Flood Insurance Program sponsored by the Federal Emergency Management Agency

Floodsmart - the official site for the National Flood Insurance Program



Statement from the California Emergency Management Agency

Emergency preparedness means being prepared for all kinds of emergencies, able to respond in time of crisis to save lives and property, to help a community or even the nation return to normal life after a disaster, and ensuring that the environment is protected. The potential for a catastrophic event impacting California, the most populous state in the nation with an estimated population of 38 million in 2008, is something that requires this all hazards approach.

The information available within the "Threats and Hazards" portion of the Planning and Preparedness Division web site is intended to provide preliminary information on potential hazards that may impact the citizenry. The information provided will include preparedness tips and or guidance on how to be ready for these hazards and vulnerabilities should they impact the State.

Have a wonderful week and remember....***Be Responsible - Be Ready - Be Prepared!***

Resources:

California Emergency Management Agency (CalEMA)

http://cms.calema.ca.gov/prep_threats_and_hazards.aspx