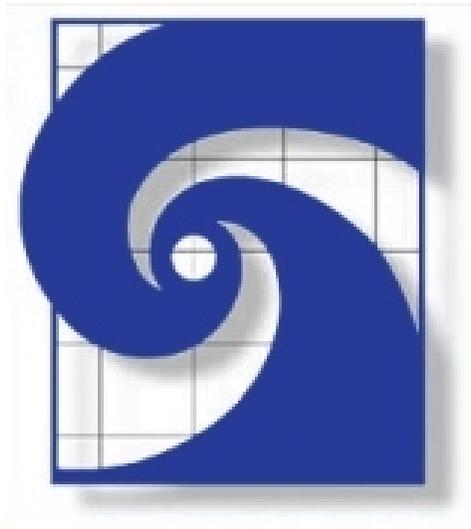


allure  
waikiki

## Emergency Preparedness



Hurricane  
Tsunami  
Earthquake

# HURRICANES

## Hurricane season starts June 1st through November 30th

Hurricanes are one of nature's most destructive forces. Violent storms can destroy structures. They can result in broken sewer and water mains, loose and dangling electrical wires, power outages, collapsed roads, and widespread destruction.

Recent technological and communications advances such as geostationary satellites, radar, and military reconnaissance aircraft have enable authorities to notify residents of advancing hurricane with sufficient time to evacuate.

## HURRICANE ADVISORIES

### TROPICAL STORM WATCH:

An announcement for specific coastal areas that tropical storm conditions are possible within 36 hours.

### TROPICAL STORM WARNING:

A warning that sustained winds the range of 39-73 mph associated with a tropical cyclone are expected in a specified coastal area within 24 hours or less.

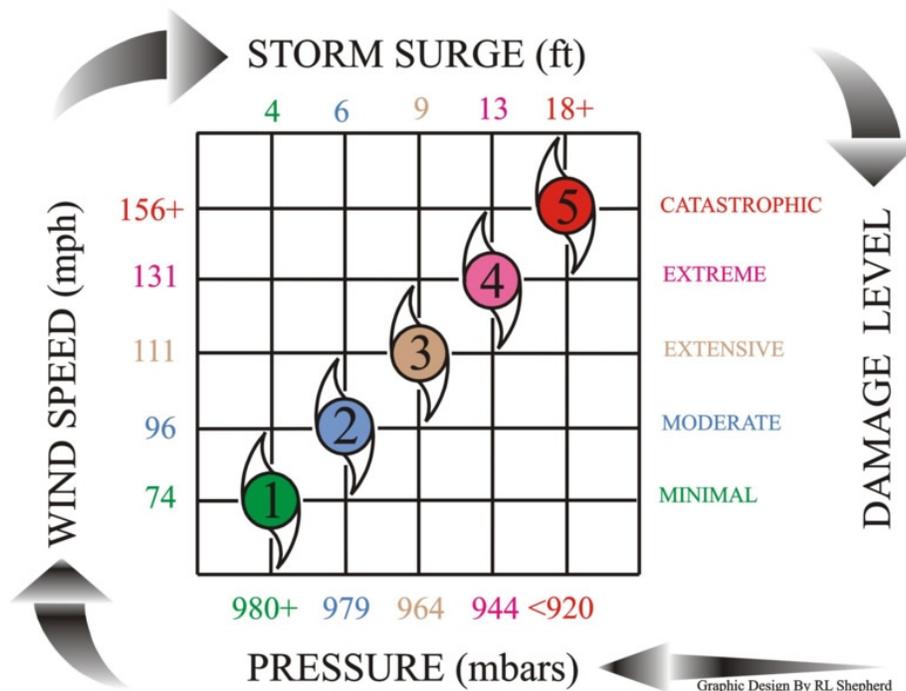
### HURRICANE WATCH:

An announcement for specific coastal areas that hurricane conditions are possible within 36 hours.

### HURRICANE WARNING:

A warning that sustained winds of 74 mph or higher associated with a hurricane are expected in a specified coastal area in 24 hours or less. ( A hurricane warning can remain in effect when dangerously high water alone or combined with exceptionally high waves continue, even though winds may be less than hurricane force.)

## SAFFIR-SIMPSON HURRICANE SCALE





# HURRICANE PREPAREDNESS

## BEFORE THE STORM

Begin planning before a storm threatens because there are many things to consider when planning for the safety of your family and your home. Some final preparations can be made as the hurricane nears shore since there is generally adequate warning, but beware that some hurricanes form or change course quickly. Advance planning helps minimize the things you have to do as the hurricane approaches and brings order into the chaos caused by this disaster.

Know that very unlikely you will need to evacuate because it's safe to stay indoors on buildings like Allure Waikiki. On extreme cases you may have to evacuate to inside of your own bathroom if one of your windows break. For this reason, it is advised to all homeowners to install an additional slide lock on their front and bathroom doors. If a powerful hurricane hits Oahu and breaks one of your unit window, you must evacuate to the bathroom. However, your door lock will not resist much time because it will shake hundreds of times until it breaks the lock. There is a need for additional lock mechanism for extra protection.

Prepare your disaster supplies kit. One of the most important tools for emergency preparedness is your Disaster Supplies Kit. You'll need provisions to carry you through a week or more after the storm. Remember, there may be no electricity or clean water for weeks. Downed trees and other hurricane related debris blocking the roads will keep you from traveling far. Below are the most important items for your Disaster Supply Kit. Stock up today; store them in a water-resistant container; and replenish as necessary, especially at the beginning of the hurricane season –

Develop an emergency communications plan. In case family members are separated from one another during a disaster (a real possibility during the day when adults are at work and children are at school), have a plan for getting back together. Ask an out-of-state relative or friend to serve as the "family contact." After a disaster, it's often easier to call long distance. Make sure everyone in the family knows the name, address, and phone number of the contact person.

Make sure that all family members know how to respond after a hurricane. Teach family members how and when to turn off gas, electricity, and water. Teach children how and when to call 9-1-1, police, or fire department and which radio station to tune to for emergency information.

Protect your windows. A lower-cost approach is to put up plywood panels.

Use 1/2 inch plywood--marine plywood is best--cut to fit each window inside the unit. Remember to mark which board fits which window, and how to fix against the window. Do this long before the storm. Taping windows doesn't protect glass, but might prevent deadly shards of broken glass from flying through the unit.

Check your flood insurance policy to make sure coverage is adequate. You can find out about the National Flood Insurance Program through your local insurance agent or emergency management office. There is normally a 30-day waiting period before a new policy becomes effective. Homeowners policies do not cover damage from the flooding that accompanies a hurricane.

Protect your pets. Pet owners are responsible for disaster planning for their pet. After the storm has passed, be careful in allowing your pet outdoors. Familiar scents and landmarks may be altered and your pet could easily be confused and become lost. Downed power lines, and animals and insects brought in with high water, could present real dangers to your pet. Take care not to allow your pet to consume food or water which may have become contaminated. For more information call the SPCA, Animal Control or Humane Society.



# HURRICANE PREPAREDNESS

## A STORM IS COMING...

### **During A Hurricane Watch**

- ! Listen to a battery-operated radio or television for hurricane progress reports.
- ! Check emergency supplies. ( See complete list below )
- ! Fuel car.
- ! Bring in outdoor objects.
- ! Turn refrigerator and freezer to coldest settings. Open only when absolutely necessary and close quickly.
- ! Store drinking water in clean bathtubs, jugs, bottles, and cooking utensils.
- ! Review communication plan
- ! Secure your home by unplugging appliances and turning off electricity and the main water valve.
- ! Tell someone outside of the storm area what you are doing.
- ! Bring pre-assembled emergency supplies and warm protective clothing.
- ! Lock up everything.

### **During A Hurricane Warning**

- ! Listen constantly to a battery-operated radio or television for official instructions.
- ! Store valuables and personal papers in a waterproof container.
- ! Avoid elevators.

# 3 to 2 HOURS BEFORE

## A- The building

There a number of measures the general manager will have to implement during this time to prevent property loss and life threatening situations:

- 1- Lobby Doors and Garage gates will be closed when winds start to pick up, **usually half hour before the hurricane comes. Everything will be locked.** No car traffic in and out of the building will happen. All entry and exits will be locked. Only garage exit doors will be open until 20 minutes before of the forecasted hurricane. After that nobody comes in and out of the building!
- 2- Depending on severity elevators may be shut off half hour before.
- 3- All furniture from outside areas: Lobby; Pool; BBQ will be removed.
- 4- Power outage is very likely to happen. Only emergency lights will work around the building.
- 5- Several systems will be shut down such as A/C.
- 6- All employees will be sent home except by only one employee trained by the Hawaii State Civil Defense on emergencies will remain on site. He will make shelter at fitness room after he closes the last door, which is garage exit doors, after that nobody comes in and out of the building!

## B- Residents

There are a number of things that you can do during this time:

- 1- Make sure you are here! Building will do complete shut down when the storm comes.
- 2- Closely monitor the television, radio, or NOAA Weather Radio to keep updated the progressing storm in the area.
- 3- Get everything set and in working condition of your emergency kit supplies and equipment such flashlights, and battery-powered radios, food, and etc.
- 4- Remove all items from your lanai.
- 5- Seek out and secure inside objects that might blow away or cause damage if one of your windows break.
- 6- Keep a supply of fresh water bottled water and other supplies inside of your bathroom. It is the safest place in your unit.
- 7- Avoid use of the cell phones and calling front desk. We will have only one employee trained by the Hawaii Civil Defense on duty. He will busy with building procedures and his own preparedness.



# HURRICANE PREPAREDNESS

## DURING THE STORM

- ! Stay inside, away from windows, skylights, and glass doors.
- ! Again, the safest place in the house is the bathroom to ride out the storm.
- ! Keep a supply of flashlights and extra batteries handy. Avoid open flames, such as candles and kerosene lamps, as a source of light.
- ! If power is lost, turn off major appliances to reduce power "surge" when electricity is restored.

## AFTER THE STORM

- ! Be Patient. Access to affected areas will be controlled. You may won't be able to go out until search and rescue operations are complete and safety hazards, such as downed trees and power lines, are cleared. It may take 2-4 weeks or more before utilities are restored.
- ! Return home only after authorities advise that it is safe to do so.
- ! Stay tuned to local radio and TV for information.
- ! Have a valid ID. Security operations will include check points. Valid identification with your current local address will be required.
- ! Help injured or trapped persons.
- ! Give first aid where appropriate.
- ! Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.
- ! Avoid loose or dangling power lines and report them immediately to the power company, police, or fire department.
- ! Enter and exit your home with caution.
- ! Beware of insects, and animals driven to higher ground by flood water.
- ! Open windows and doors to ventilate and dry your home.
- ! Check refrigerated foods for spoilage.
- ! Take pictures of the damage, both to the house and its contents and for insurance claims.
- ! Drive only if absolutely necessary and avoid flooded roads and washed-out bridges.
- ! Use telephone only for emergency calls.

### **Inspecting Utilities in a Damaged Home**

Look for electrical system damage--If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.



# HURRICANE PREPAREDNESS

## HURRICANE E SURVIVAL KIT

You'll need provisions to carry you through a week or more after the storm. Remember, there may be no electricity or clean water for days. Downed trees and other hurricane related debris blocking the roads will keep you from traveling far. Below are the most important items for your Supply Kit.

- ! Two weeks supply of prescription medicines
- ! Two weeks supply of non-perishable/special dietary foods. Buy plenty of nonperishable foods, because there won't be any refrigeration.
- ! Drinking water/containers: 1 gallon per person per day for two weeks. It's a good idea to sterilize the bathtub and fill it with water just before the storm.
- ! Flashlights and batteries for each member of the family
- ! Portable radio and (7 sets) batteries
- ! First aid book and kit including bandages, antiseptic, tape, compress, non aspirin pain reliever, anti-diarrhea medication
- ! Two coolers (one to keep food; the other to go get the ice)
- ! Plastic tarp for roof/window repair, screening, tools, nails, etc.
- ! Water purification kits (tablets, chlorine (plain) and iodine)
- ! Infant necessities (medication, sterile water, diapers, ready formula, bottles)
- ! Clean up supplies (mop, buckets, towels, disinfectant)
- ! Camera and film
- ! Non-electric can opener
- ! Extra batteries for camera, portable TV & lamps, etc.
- ! Plastic trash bags
- ! Toilet paper, paper towels and pre-moistened towelettes, eating utensils, masking tape and zip-lock bags to keep valuables safe from water.

### Other important items:

Pillows, blankets, sleeping bags or air mattresses

Extra clothing, shoes, eyeglasses, raingear, etc.

Folding chairs, lawn chairs or cots

Personal hygiene items (toothbrush, toothpaste, deodorant, etc.)

Quiet games, books, playing cards and favorite toys for children

Important papers (drivers license, special medical information, insurance policies and property inventories)

### Precious commodities before and after a storm:

Gas / Cash (With no power, banks may be closed, checks and credit cards unaccepted, and ATMs may not be operational). / Charcoal, wooden matches and grill / Ice



# HURRICANE PREPAREDNESS

## HURRICANE E SURVIVAL KIT

Remember:

You will not be able to flush the restroom toilet for weeks until the board of water supply and electric utility company restore their services. If you use your toilet, liquids and solids will stay there for days, and will create health issues. Do not use your toilet. You will need to find an alternative solution, which could be a public restroom, or bring ocean water in a bucket to dump in your toilet forcing the flush.

For days, the best transportation will be bicycles, mopeds and motorcycles.

Since there is no power, you will need to walk the stairs several times. What floor do you live? Plan to stay home as much as possible.

Employees working in the building will be very limited due to the circumstances and restricted by local authorities.

Allure generator has limited capacity for emergency lights and needs diesel in order to operate. There are only very few companies that deliver diesel in Oahu, and they may not be able to come here to re-supply us. Also, the whole island will be calling them for re-supplies. Thus, do not expect the generator to be working after runs out of diesel.

Very likely you will be on your own. So get ready for such. Local authorities such as Police, Fire Dept and hospitals will be overwhelmed!

Fill your car's tank as soon you hear anything about a possible hurricane coming. Also, have cell chargers/adapters there.

You should install extra door latch behind your front and restroom door. Hurricane winds will shake these doors hundreds of times and eventually will break the latch bolt.



# TSUNAMIS

Understand the difference between “watch” and “warning”

A **Tsunami Watch** is automatically declared by the Pacific Tsunami Warning Center (PTWC) for any earthquake magnitude 7.5 or larger (7.0 or larger in the Aleutian Islands) if the epicenter is in an area capable of generating a tsunami. Civil Defense is notified, and the local media is provided with public announcements. PTWC then waits for data from tide gauge stations to confirm whether or not a tsunami has been generated. PTWC also requests reports on wave activity from tide-gauge stations near the earthquake epicenter. If the stations observe no tsunami activity, the Tsunami Watch is canceled. If the stations report that a tsunami has been generated, a **Tsunami Warning** is issued for areas that may be impacted in the next hour. The emergency broadcast system alerts the public of the danger, and evacuation begins. Remember, tsunamis travel at 500 miles per hour; as soon as a warning has been issued you should evacuate immediately.

## ALLURE WAIKIKI and TSUNAMIS

Looking the report below it is clear that Hilo Bay and North Shore areas of the islands are the hot zones for tsunamis. We learned from the recent Japanese tsunami that here at Allure Waikiki we can do the "VERTICAL EVACUATION". Any building structure above 6 floors is safe from tsunamis. So any time we have reach the warning level for a tsunami THE BEST THING IS TO STAY HOME listening to a local radio or television station or NOAA Weather Radio. (<http://www.weather.gov/nwr/streamaudio.htm>)

The Japanese tsunami is a glimpse of a natural disaster experience:  
Convenience stores got super crowded and ran out of supplies fast.  
Gas stations got huge lines.  
ATM ran out of cash.

Streets and traffic became dangerous because people are in a rush. At some point streets are closed to the shore lines by the police.

## TSUNAMI REPORT

### Tsunami Quick facts:

Tsunami is a Japanese word closely translating to 'harbor wave'.

Tsunamis are not caused by tides and are not tidal waves.

Tsunamis can happen during the day or night at anytime of the year.

Tsunamis are generated as a result of water displacement usually triggered by a seismic event (i.e. earthquake).

Tsunamis may travel at speeds ranging from 450 to 500 miles per hour.

Tsunamis are a series of waves that may impact coastlines for several hours.

Tsunami waves can come ashore in many different ways among which are: a wall of water (resembling white wash), a rapidly rising tide, a series of surf-like breakers, etc.

Tsunamis have occurred frequently in the Pacific Ocean as the Pacific is surrounded by deep ocean trenches prone to large earthquakes that trigger tsunamis.

In Hawai'i, tsunamis have killed more people than hurricanes, earthquakes and volcanic eruptions combined.



# TSUNAMIS

Hawai'i is at risk from two types of tsunamis:

Distant tsunami - which will take several hours to reach Hawai'i.

Locally generated tsunami - which may arrive onshore in seconds to minutes.

The natural warning signs of a tsunami:

You should familiarize yourself with the natural warning signs of a tsunami:

An earthquake

Water receding

Water surging inland

A strange sound coming from out to sea (survivors say the sound is like a loud roar)

Other indications that a tsunami may be imminent:

One way Civil Defense Agencies will alert the general public of an impending tsunami is through the Emergency Alert System (EAS). All means of alerting the public will be used, including police, fire fighters, Civil Air Patrol, lifeguards, Coast Guard, and others. The EAS is controlled and maintained by local Civil Defense Agencies.

## Warnings

Tsunami WATCH is automatically declared by the warning center for any earthquake having a magnitude of 7.5 or larger on the Richter scale located in an area where a tsunami can be generated. If there is no observed tsunami activity, the Tsunami Watch is canceled.

**Tsunami WARNING** If a tsunami has been generated, a Tsunami Warning is issued for areas that may be impacted in the next three hours. At this time the public is informed of the ensuing danger by sirens and the emergency broadcast system. The warning includes predicted tsunami arrival times at selected coastal communities within the geographic area defined

## Tsunami History

According to the U.S. Geological Survey (USGS), 50 tsunamis have been reported in Hawaii since the early 1800's. The majority of these tsunamis did not have much impact like the 2011 Japanese tsunami, which raised the tide causing damages on harbors, boats and property very close to the shores. However, 5 Tsunamis did have great impact. Here's below a brief:

The 1946 Aleutian Tsunami was generated by 8.6 earthquake near Unimak in the Aleutian chain of islands of Alaska. The earthquake occurred on April 1, 1946, at 12:29 GMT.

The town of Hilo on the island of Hawaii was pounded by a series of 6 to 7 large tsunami waves coming in at 15-20 minute intervals. The highest of these waves had a run up height of 8.1 meters above sea level. The damage was extensive. The waves completely destroyed Hilo's waterfront killing 159 people there. Every house on the main street facing Hilo Bay was ripped off its foundation and was carried across the street smashing against buildings on the other side.

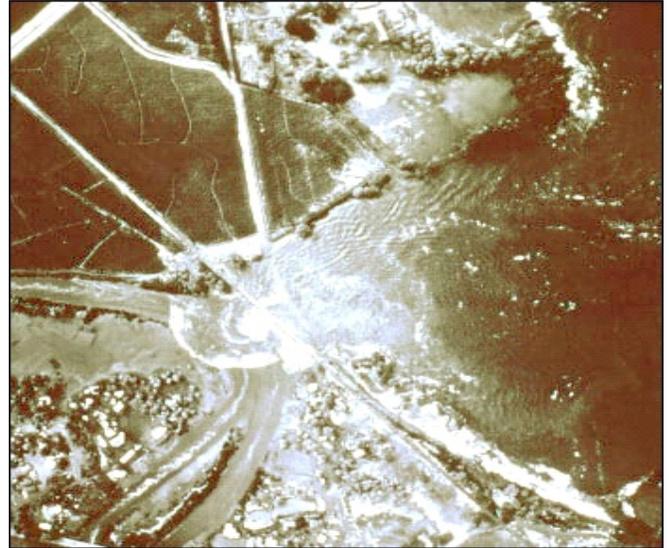




# TSUNAMIS

The 1952 Kamchatka Tsunami was generated by 9.0 earthquake off the coast of Kamchatka Peninsula, in the far east of Russia. The earthquake occurred on November 4, 1952, at 16:52 GMT.

Fortunately, no human lives were lost in Hawaii from this tsunami, but damage was extensive, estimates ranging from \$800,000- \$1,000,000 (in 1952 dollars). The tsunami destroyed boats and piers, knocked down telephone lines, and caused extensive beach erosion. In some locations, tsunami waves were destructive in certain locations but hardly noticeable at others. The north shore of Oahu experienced higher waves of up to 4.5 meters. On the south shore of the island, the tsunami was powerful enough to throw a cement barge in the Honolulu Harbor into a freighter.



The 1957 Aleutian Tsunami was generated by 8.3 earthquake south of the Andreanof Islands in the Aleutian Islands of Alaska. The earthquake occurred on March 9, 1957, at 14:22 GMT.

In Kauai damage occurred at the northern part of the island of Kauai, near Haena point, where the tsunami waves reached heights of 16 m, almost twice the height of the 1946 tsunami. The waves destroyed bridges and sections of Kauai's highways were flooded. Houses were washed out and destroyed at Wainiha and Kalihiwai. A total of 75 homes were destroyed or badly damaged on Kaua'i - twice the number of those damaged by the 1946 tsunami.

At Hilo, the maximum tsunami run-up was 3.9 m. The tsunami flooded the wharf by about two feet and damaged the warehouse and its contents. Numerous buildings along the waterfront were damaged. Coconut Island was covered by 1 m of water and the bridge connecting it to shore, as in 1952, was again destroyed. There was flooding along the coastal streets. Fortunately, the 1957 tsunami was nothing like the 1946 tsunami and no lives were lost.





# TSUNAMIS

The 1960 Chilean Tsunami, it is the largest earthquake 9.5 of the 20th century off the coast of South Central Chile. The earthquake occurred on May 22, 1960, at 19:11 GMT.

The great Pacific-wide tsunami traveled a total distance of more than 6,000 miles (10,000 kilometers) from the the generating area in Southern Chile before reaching the Hawaiian Islands. Travel time was about 15 hours after the earthquake. The local date in Hawaii was 23 May 1960. The tsunami caused little damage in most of the Hawaiian Islands, but the island of Hawaii - and particularly the Hilo Bay area - were hit the hardest. 61 people lost their lives and 282 were injured. Damage costs were estimated at \$24 million (1960 dollars).



The 1975 Hawaiian Tsunami is the largest, local 7.2 earthquake to strike the Hawaiian Islands designated as the Kalapana Earthquake of 1975, generated the most destructive local tsunami in Hawaii in the 20th Century. Occurred on Wednesday, November 29, 1975, at 14:48 GMT.

Big island - At the small bay of Punalu'u, the first tsunami wave arrived only 84 seconds after the quake was felt. The tsunami waves were particularly destructive. Houses were swept off their foundations and properties were extensively damaged. There were thirty-two (32) people camping for the night at the Halape beach park near the base of a cliff. According to campers' accounts, trembling of the earth and sounds of rocks falling from the cliff, awakened them. A few of the campers moved to the coconut grove adjacent to the beach, believing it was safer from falling rocks. The second earthquake, a little over an hour later, caused larger boulders to start falling down the cliff, thus forcing the rest of the remaining campers to flee toward the sea. Nineteen (19) of these campers suffered injuries. Two (2) of them died. At the Keauhou Landing, the tsunami waves completely destroyed the pier. Elsewhere in the islands the tsunami was small.



## Tsunami Hazards Links

[www.tsunami.org](http://www.tsunami.org)

The Pacific Tsunami Museum is a well-maintained source of information.

[www.pmel.noaa.gov/tsunami](http://www.pmel.noaa.gov/tsunami)

NOAA's Tsunami Research Program includes animated models of tsunamis.

[www.redcross.org/services/disaster](http://www.redcross.org/services/disaster)

American Red Cross summarizes the nature of tsunamis and mitigation.

[www.ndbc.noaa.gov/dart.shtml](http://www.ndbc.noaa.gov/dart.shtml)

NOAA describes DART tsunami buoys.

# EARTHQUAKE

The effects of major earthquakes can be catastrophic causing buildings and bridges to collapse, downing of telephone and power lines, fire, explosions, and landslides. Earthquakes can also cause tsunamis.

An earthquake can be identified by the rolling, rumbling sound that often heralds it as well as the severe shaking motion. A building's structure and items in and around it may shake, shatter, rattle, fall, or break. Shaking may begin in different ways, gently, growing violent in one or two seconds, or with a violent jolt like a sonic boom.

Injury can result from flying glass, which is of special concern in high-rise structures; overturned bookcases, wall units, and other heavy furniture; and fallen power lines, bricks and concrete. Severe damage also can be caused by fires, which can break out due to broken gas and electrical short circuits.

Electricity and telephone service may be disrupted. Gas, water, and sewer pipelines may be broken. Fire protection systems are often triggered, and sprinklers go on. Strong drafts created by the breakage of exterior windows make the situation even worse. Normal police, fire, medical, and other services may not be accessible, possibly for extended periods of time.

Aftershocks may occur over a period of several days, creating more damage. Tsunamis may occur in coastal areas as a result of the earth's movement. Still another concern after earthquakes is the threat of landslides resulting from a new imbalance in ground structure, which can cause both structural and nonstructural damage.

## **Preventive Measures**

There are two categories of damage a property may sustain during an earthquake, structural and nonstructural. In the structural category is damage to foundations; outside and inside load-bearing walls; floor and roof sheathing, slabs, and decking; beams, girders, and joists; and posts, pillars, and columns.

Nonstructural damage is much more broadly defined. It can consist of damage to ceilings and light fixtures, windows, office equipment and computers, air conditioners, files, electrical and utility equipment, merchandise and inventory, furnishings, and personal property. Damage caused by moving or falling objects, whether during the earthquake or resulting from it, is also considered nonstructural.

Although structural damage is difficult to prevent, it may be possible to reduce future damage by incorporating earthquake-specific upgrades during major renovation projects. Building codes evolve, and newer codes are more likely to address earthquake damage mitigation. It is a good idea to know when the building you manage was built and what new building codes might apply.

Following are some simple steps that can be taken to avoid nonstructural damage.

Secure the following items by whatever means possible:

- Exterior ornamentation
- HVAC equipment -piping
- Suspended ceilings
- Light fixtures, especially suspension type
- Wall hangings and hanging plants
- Computers and other office equipment
- Heavy furniture
- shelves
- File cabinets (install locks) and other cabinets and cupboards (install sturdy latches on doors)
- water heaters
- Gas and electrical appliances
- Top-heavy items