DISASTER PREPAREDNESS

A CITIZEN'S GUIDE

PRESENTED TO YOU BY:
The City of Sausalito

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WELCOME:

The City of Sausalito's Disaster Preparedness/Emergency Operations Program is pleased to provide you with Disaster Preparedness: A Citizen's Guide. This guide includes information for use before, during, and after an emergency. We recommend you print this guide and place it in a location that will guarantee its ease of use. We urge you and all members of the household or workplace to be familiar with it.

There is no way to predict what kind of disaster will strike or when this emergency may happen. But by being prepared, you, your family, neighbors, co-workers, and fellow citizens will be better able to remain safe and assist the City in responding to the emergency. The Emergency Services Manager will gladly meet with neighborhood, citizen, and community/business groups to discuss what they can do to prepare for disasters and inform them of what steps the City of Sausalito is taking in the areas of disaster preparedness and emergency operations.

The City of Sausalito wants you as prepared as possible during times of emergency. Please review the Disaster Preparedness portion of the Sausalito Police Department's website for many useful facts regarding preparing for a wide range of disasters. We further encourage you to attend the Southern Marin Fire District's Get Ready and Community Emergency Response Team (CERT) training classes to better prepare you for emergencies we may encounter in Sausalito.

We thank you for your support and assistance in our City's disaster preparedness effort.

Sincerely,

Adam Politzer
Sausalito City Manager
Director of Emergency Services

Bill Fraass
Police Sergeant
Emergency Services Manager

GET INFORMED & MAKE A FAMILY PLAN:

In the midst of rushing through everyday life, it is important to take a minute to prepare for emergencies. Being prepared helps you and your family minimize the impact of a disaster, such as an earthquake, or an emergency, such as a broken leg. Knowing what to do is your best protection and your responsibility. The best way to make your family and your home safe is to be prepared before disaster strikes.

- In our area we have the potential of disasters caused by earthquakes, fire, weather related emergencies, and terrorism. Take time to plan for the problems related to each type of disaster.

- Educate you and your family by attending disaster preparedness classes such as the Get Ready and C.E.R.T (Community Emergency Response Team) programs conducted by the Southern Marin Fire Department. Further educate yourself by reviewing the emergency preparedness information posted of the City of Sausalito's website as well as the websites of organizations such as the Federal Emergency Management Agency and Red Cross.

- Ask about disaster plans at your workplace, your children's school or daycare center, and other places where your family spends time.

- Find out how to help elderly or disabled persons in your home or neighborhood.

- If you have pets, make a pet plan. Animals may not be allowed inside emergency shelters due to health regulations.

MAKE A FAMILY EMERGENCY PLAN

- *Meet with household members* - Explain the dangers to children and your emergency plans. Work with them as a team to prepare your family to deal with emergencies.

- *Discuss* what to do about power outages and personal injuries.
- *Post emergency telephone numbers* near telephones.

- *Learn* how to turn off the water, gas, and electricity at your home.

- *Decide where to meet* - In the event of an emergency, you may become separated from family members. Choose a place right outside your home in case of a sudden emergency, like a fire. Choose a location outside your neighborhood in case you cannot return home.

- *Choose an "Out-of-Town" contact* - Ask an out-of-town friend or relative to be your contact in the event of a disaster. Everyone must know the contact's phone number. It is often easier to make a long distance phone call than a local call from a disaster area.

- *Teach children* how to make long distance telephone calls.

- *Complete a family communications plan* - Your plan should include contact information for family members, work, and school.

- *Escape routes and safe places* - In a fire or other emergency, you may need to evacuate very quickly. Be ready to get out fast. Be sure everyone in your family knows the best escape routes out of your home as well as where the safe places are in your home for each type of disaster. Draw a Home Escape Plan with your family outlining two escape routes from each room and practice the plan.

PREPARE A DISASTER SUPPLIES KIT

Prepare to care for yourself, your family, and pets for a duration of at least three days and up to seven days after a disaster. The best time to assemble a disaster supplies kit is well before you need it. Most of these items are already in your home, it is just a matter of assembling them before the disaster occurs.

- Water – One gallon per person and per pet for each day. Store water in unbreakable container. Identify the storage date and replace every six months.

- Food – A supply of non-perishable packaged or canned foods with a hand-operated can opener.

- Anti-bacterial hand wipes or gel.

- Fire Aid Kit, a first aid book, and required prescription medications.

- Blankets or sleeping bags – at least one per person.

- Battery-powered radio, flashlights, and plenty of extra batteries.

- Fire Extinguisher – ABC type.

- Credit cards, cash, and change.

- An extra set of car and house keys.

- Extra pair of eye glasses.
- Toothbrush, toothpaste, shampoo, and toilet paper.
- A list of family physicians.
- A list of important family information including phone numbers.
- Special items for infants, elderly, or disabled family members.

SANITATION SUPPLIES

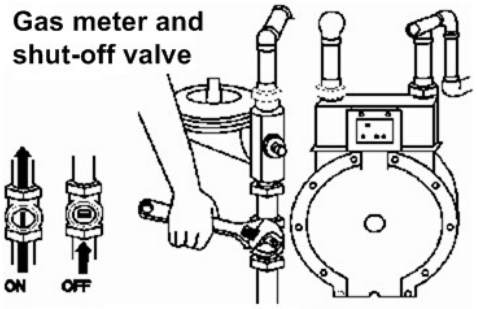
- Large plastic trash bags for waste, tarps, and rain ponchos.
- Large trash cans.
- Bar soap and liquid detergent.
- Household bleach.
- Rubber gloves.

Stocking up now on emergency supplies can add to your family's safety and comfort during and after a disaster. Store enough supplies for at least three days, preferably as many as seven days.

HOW TO TURN OFF GAS

Make sure all family members know how and when to shut off the gas supply.

- *If you smell gas* after an earthquake, or any disaster, shut off the main gas valve.
- *Use a wrench* to turn the valve either way until it is perpendicular to the pipe.
- *Attach the wrench* to the gas meter with a wire.



Have wrench stored in a specific location where it will be immediately available

PREPARING AT WORK

GENERAL EMERGENCY PREPAREDNESS

An emergency can happen anytime. You and your co-workers should know what to do if an emergency happens at work. Even if you think you are not in a disaster-prone area, something like a chemical tanker truck overturning or a flood can prevent you from getting to or from work. No business should operate without a disaster plan. If you are business owner developing a business disaster plan, consider how the disaster could affect your employees, customers, and workplace. Consider how you could continue doing business if the area around your facility is closed or streets are impassable. Consider what you would need to serve your customers if your facility is closed.

Employees Should

- Learn and practice emergency plans.
- Know at least two exits from each room (if possible).
- Be able to escape in the dark by knowing, for instance, how many desks or cubicles are between your workstation and two of the nearest exits.
- Know the post-evacuation meeting location.
- Know the location of fire extinguishers and how to use them.
- Keep a copy of co-workers phone numbers at home.
- Make a list of important personal numbers. Keep a printed list at your desk or near other phones. Do not rely on electronic lists, direct-dial phone numbers, or computer organizers that may not work in an emergency.
- Gather personal emergency supplies in a desk drawer: include a flashlight, walking shoes, dust mask, a water bottle, and non-perishable food.
- Report damage to or malfunctions of safety systems.
- Never lock or block fire exits or doorways. However, keep fire doors closed to slow the spread of smoke and fire.

- Make specific plans to help each other. Determine how you will help each other in the event that public transportation is shut down or throughways are impassable. Offer to temporarily house, transport, or feed your co-workers in case of emergency.

Employers should

- Ensure that an emergency plan is developed and practiced at least every six months.

- Make specific plans for employees who are disabled or who may require assistance during an emergency.

- Put together an office phone tree. Develop a list of everyone's home phone numbers who is responsible for making each contact. Provide a copy for each employee.

- Keep a phone list of all key employees with you at all times.

- If you have a voicemail system, designate one remote number on which you can record messages for employees and provide them a number.

- Arrange for programmable call forwarding for your main business lines.

- Leave keys and the alarm codes with a trusted employee or friend in case you cannot get to your facility.

- Backup computer data frequently.

- Purchase a NOAA Weather Radio with a tone alert system.

WEATHER TERMS

IS IT A WATCH OR A WARNING?

A watch is intended to provide lead time for those who need to set their plans in motion. A watch means that hazardous weather is possible in and close to the area.

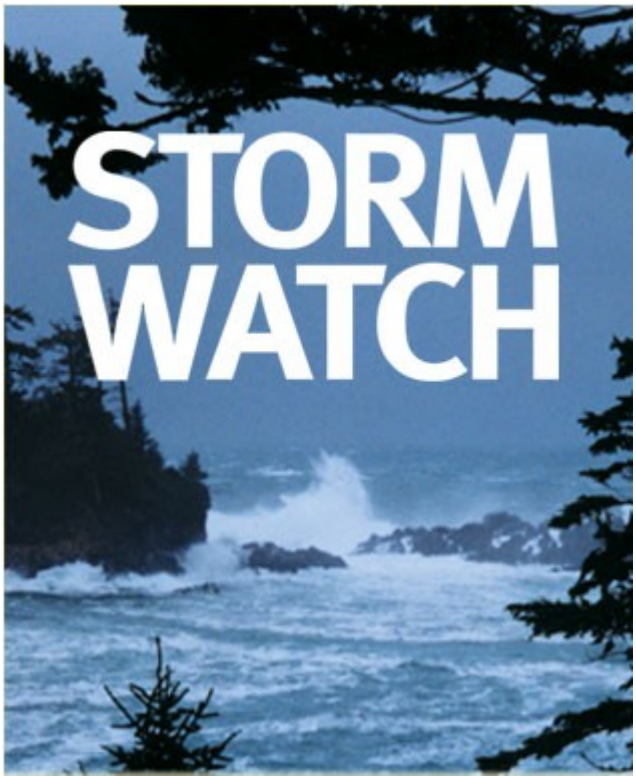
A warning means that weather conditions pose a treat to life or property: people in the path of the hazard need to take protective action.

These terms are used for hazards such as Thunderstorms, Flashfloods, Winter Storms, Fires and Wildland Fires.

WINTER STORMS- WATCHES AND WARNINGS

Winter Storm Watch – Conditions are favorable for hazardous winter weather conditions such as heavy rain, flooding, winds, etc. The watches are usually issued 12 to 36 hours in advance.

Winter Storm Warning – Hazardous winter weather conditions pose a threat to life and/or property are occurring, imminent, or likely.



EVACUATIONS

TERMS

Evacuation Advisory – An advisory is issued when there is reason to believe that they emergency will escalate and require mandatory evacuations. An advisory is meant to give residents as much time as possible to prepare transportation arrangements.

Voluntary Evacuation – Is used when an area is going to be impacted and residents are willing and able to leave before the situation gets worse. This is helpful for residents with medical issues, people with pets, and those who will have difficulty making travel arrangements. Under this evacuation order you do not have to leave the area.

Mandatory Evacuation – You MUST leave the area IMMEDIATELY, your life is in danger. Under these circumstances the situation is severe and you may not have time to gather special belongings or paperwork, every minute you delay could increase your danger. Please do not take this order lightly; it is for your safety. Remember to follow any instruction you receive from a law enforcement or fire officer.

MAKE A PLAN IF YOU MUST LEAVE YOUR HOME

- *Begin evacuation immediately* when the official warning is issued. Your life might be in danger, do not waste time leaving your home.
- *Have a place to go* such as the home of a family member or friend, or a shelter. Plan your route before the disaster.
- *Listen to the radio* for updates on the situation.
- *Notify family or friends* of your plans, if possible. Tell them when you are leaving and where you are going.
- *Use travel routes* specified safe by local officials. Know where you are going before you leave.
- *Bring extra cash*. Banks may be closed and ATMs may not work.
- *Take your disaster supplies kit.*
- *Secure and lock* your home before you leave.
- *Bring toys*, books, and games for entertainment.

- *If driving in smoke*, turn on headlights, move as far to the right as possible, and drive slowly.

- *When you arrive* at a shelter make sure you register with official personnel.

- *Don't panic*, drive slowly and arrive safely at your destination.

DEVELOP A PET PLAN

In the event of a disaster, if you must evacuate, the most important thing you can do for your pets is to evacuate them. If you are away from your home when your neighborhood is evacuated you will not be allowed back to retrieve your pets, so make arrangements with neighbors before a disaster strikes.

Pets are not allowed at public shelters for health and space reasons, so arrangements must be made in advance for pets. Pets might not be allowed in hotels or motels so planning is crucial.

- Make sure that your *pets are current on their vaccinations.* Pet shelters may require proof of vaccines.

- Keep a *collar with identification* on your pet and have a leash on hand to control your pet.

- If possible, have a properly-seized *pet carrier for each animal.*

- Have a supply of *pet food, water, and any required medications.*

Animals brought to a pet shelter are required to have a proper identification collar, proper identification on all belongings, leash, food bowl, food, and water.

SPECIAL NEEDS AND VULNERABLE POPULATIONS

Certain individuals in the community may have special problems to deal with in a disaster, including the elderly, people with medical conditions, and people with certain disabilities (mobility, visually impaired, hearing impaired, developmental or cognitive disabilities). If you have a family member who is one of these individuals, there are special considerations to think about and plan for before a disaster occurs.

If the family member has medications or equipment that they are dependent on, plan to bring those items with you if an evacuation is necessary. Shelters will not

have additional medications or medical equipment available. Documentation about insurance and medical conditions should also accompany the person.

Plan ahead for transportation needs for family members that have special needs. Transportation for the general public in an emergency evacuation may not be suitable for their situation.

If the family member has special dietary needs, bring these special foods and supplements with you.

Many special needs populations are easily upset and stressed by sudden and frightening changes. Plans should be made to ensure that a caregiver or trusted family member is able to stay with them at all times during an evacuation.

MAKE A PLAN IF YOU MUST STAY AND SHELTER IN PLACE

- *Have your disaster supplies kit* in hand, including pet supplies.
- You need to *store at least a three-day supply* of water for each person in your household. Stored water should be changed every six months.
- *Notify family or friends* of the situation in possible.
- *Wirth with neighbors* to develop a neighborhood plan that keeps everyone informed.
- Listen to your battery operated *radio for emergency updates.*
- Once you have decided to stay, *remain in your home* until the emergency is over.

DISASTER PLANNING: FIRES (Wild Land and Urban)

In Sausalito, the major fire threat is that of urban fires occurring in the downtown business areas and the adjacent hillsides, largely built up with older, wood frame, often shingled homes. Normally, fires are kept to single structures, but the occasional high wind conditions from the northeast have the possibility of spreading a structure fire into a general conflagration. Another threat lies in a major marina or waterfront fire, with densely occupied marinas, with many gasoline powered vessels.

In Sausalito, wild land fires have not historically posed a major threat, though the perimeter of the City from Alexander in the south through Wolf back Ridge in the west are adjacent to wild land. The weather patterns of summer fog have kept the vegetation somewhat moist and green through the fire season thus limiting the threat of a quickly spreading wild land fire. However, a wild land fire in the GGNRA areas above Fort Cronkite could pose a threat Sausalito and you should be prepared.

WHAT TO EXPECT DURING A WILD LAND FIRE

Wild land fires can start and move very quickly. Smoke and embers will be moved by the wind created by the fire. The situation can change in minutes, listen to the radio or television for updates and be ready to leave if necessary.

BEFORE A WILD LAND FIRE OCCURS

What you should wear and equipment you should have with you are:

- Wear only cotton or wool clothes.
- Proper attire includes long pants, long-sleeved shirt or jacket, and boots.
- Carry gloves, a handkerchief to cover your face, water to drink, and goggles.
- Keep a flashlight and portable radio with you at all times.
- Tune in to local radio stations and listen for instructions.

How to prepare your car:

- Place your vehicles in the garage, pointing out with the keys in the ignition.
- Roll up the windows.
- Close the garage door, but leave it unlocked.
- If applicable, disconnect the electric garage door opener so that the door can be opened manually.

If you have to evacuate, leave the inside of your home in the following condition:

- Close all interior doors.
- Remove lightweight, nonfire-resistant curtains and other combustible materials from around the windows.
- Close fire-resistant drapes, shutters, and Venetian blinds.

If you have to evacuate, leave the outside of your home in the following condition:

- Place combustible patio furniture in the house or garage.
- Close all exterior vents if possible.
- Prop a ladder against the house to provide firefighters with access to the roof.
- Make sure that all garden hoses are connected to faucets and attach nozzles set on spray.
- Close all exterior doors and windows.
- Leave exterior doors unlocked, this will allow firefighters access to your house to fight any fire.
- Turn on outside lights.
- If available and there's time, cover windows, attic openings, and vents with plywood that is at least one-half inch thick.
- If you have an emergency water source (pool, pond, etc) and/or portable water pump, clearly mark its availability so it can be seen from the street.

WHEN A WILD LAND FIRE OCCURS

- *Stay calm and do not panic.* You will think more rationally if you remain calm. Keep family members and pets together. Wear long pants, long sleeved shirts made from natural fibers, and boots or sturdy shoes for protection from the heat. If advised to evacuate, DO SO IMMEDIATELY. Drive slowly, turn on your vehicle's headlights and stay as far to the right of the road a possible.

- *If evacuation routes are blocked* you will be required to stay in your home during the fire. If you shelter in place, stay away from windows, and move to an interior room or hallway, if the house does catch fire there will still be time to get out. Do not try and leave until the fire has passed and you can safely get to a shelter location.

WILD LAND FIRE THREATENS YOUR HOUSE IN THREE WAYS

CONTACT BY FLAMES

This type of threat occurs when vegetation and other fuels burning near the house produce flames that come in contact with the home and ignite it. Often, it happens when fire burns the house. Direct contact by flames is probably what most homeowners visualize when they think of a house burning during a wild land fire.

RADIATED HEAT

Radiated heat is produced by invisible electromagnetic waves that travel out in all directions from a flame. When a house receives enough radiated heat fro a sufficient amount of time, it will ignite. Sometimes radiated heat can burst windows and allow burning embers to enter the house.

FLYING EMBERS

More houses burn due to flying embers than any other reason. If fire conditions are right, embers can be lofted high into the air and transported more than a mile. Burning embers can also be carried by wind and fire whirls. If these burning embers land in easily ignitable materials, a new fire can start.

CREATE DEFENSIBLE SPACE

What is defensible space?

Defensible space is the area between a house and an on coming wild fire where the vegetation has been modified to reduce the wild fire threat and to provide an opportunity for firefighters to effectively defend the house. Defensible space around a structure can also prevent urban fires from spreading from on building to another. Sometimes, defensible space can be as simple as a properly maintained backyard.

There are Seven Steps to Defensible Space:

Step One- Determine the size of an effective defensible space:

The size of the defensible space is usually expressed as a distance extending outward from the house in all directions. The recommended distance is not the same for every home. It varies depending on the dominant vegetation surrounding the home and steepness of the slope. 100 feet is usually the minimum defensive space, however, the Southern Marin Fire District can provide you with a more accurate defensible space examination based on the characteristics of your home.

Once the recommended distance for defensible space is known, mark it by tying stripes of cloth or flagging to shrubs. This becomes the "Defensible Space Zone."

If the Defensible Space Zone exceeds your property boundaries, seek permission from adjacent landowners before doing work on their property. It is important to note that the effectiveness of the Defensible Space Zone improves when entire neighborhoods implement defensible space practices.

Step Two- Remove dead vegetation:

For the most part, dead vegetation should be removed from the Defensible Space Zone. Dead vegetation includes dead and dying standing trees or recently fallen trees; dead native and ornamental shrubs; dead branches; dried grass, weeds, and flowers. Fallen trees embedded into the ground and located **more than 30 feet** from the house can be left in place, with exposed branches removed.

Regarding fallen needles and leaves:

- **Within 5 feet** of the house, remove routinely throughout fire season.
- From **5 feet to 30 feet** of the house, remove every spring by May 1. Needles and leaves that fall after the spring removal period can

accumulate on the ground as long as they do not create a fire hazard.

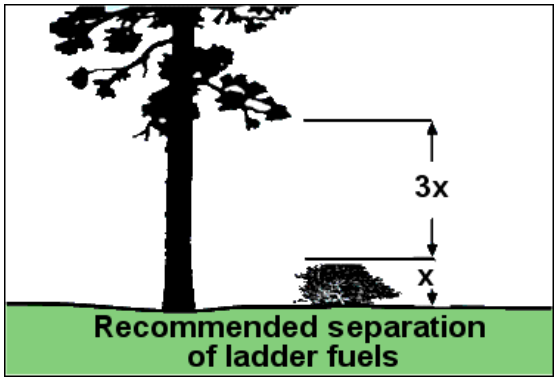
- **More than 30 feet** from the house, do not allow fallen needles and leaves to exceed a depth of 3 inches.

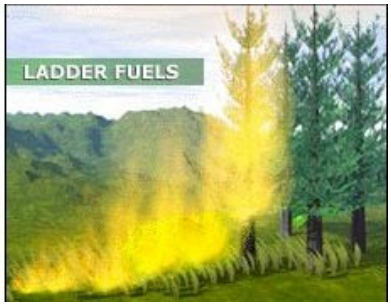
Step Three- Create a separation between trees and shrubs:

Within the Defensible Space Zone, native trees and shrubs should not occur in a dense stand. Dense stands of trees and shrubs pose a significant wild fire threat. Thin dense tree and shrub stands to create more space between them.

Step Four- Remove ladder fuels:

Vegetation that can carry a fire burning in low-growing plants to taller plants is called "ladder fuel." Lower tree branches should be removed to a height of at least 10 feet. Shrubs and trees growing under the drip line should also be removed. Irrigated, well-maintained lawn and flower beds, as well as low-growing native ground covers can be present under the tree's drip line as long as they would not allow a fire to ignite the tree. Removal of tree branches should not exceed one third of the total tree height.





Step Five- Create a Lean, Clean, and Green Area extending 5 feet to 30 feet from the house:

There are two goals for the Lean, Clean, and Green Area. The first goal is to eliminate easily ignitable fuels, or "kindling," near the house. This will help prevent embers from starting a fire in your yard. The second goal is to keep fire intensity low if it does ignite near the house. By proper management of the vegetation and other fuels near the house, a fire would not be able to generate enough heat to ignite the home.

For most homeowners, the Lean, Clean, and Green Area is also the residential landscape. This area often has irrigation, is planted with ornamental vegetation, and is regularly maintained.

Lean, Clean and Green Area Tips

- Remove dead shrubs and trees; dried grass, flowers and weeds; dead branches; and firewood from this area.

- Remove fallen needles and leaves every spring by May 1.

- Wood and bark mulches can be used in this area, but not in a widespread manner. Areas of wood and bark mulches should be separated by noncombustible materials, such as irrigated lawn, clover, erosion-control grasses and flowers, gravel, and rock, and arranged so that they would not allow a fire to travel rapidly across the area.

- Native shrubs should be substantially reduced in this area. Individual specimens or small groups can be retained as long as they are kept healthy and vigorous, pruned to reduce height and amount, and would not allow a fire to travel rapidly across the area. When removing shrubs, leave the root system in place.

- Use low growing (less than 18 inches tall), irrigated, herbaceous pants, such as lawn, clover, erosion-control grasses, flowers, some ground covers and succulents.

- Ornamental, deciduous trees and shrubs can be used as specimens or in small groups. They should be irrigated, kept healthy and vigorous, free of dead leaves and wood, and arranged so that they could not rapidly transmit fire across the area. Deciduous tress should be placed so that their mature canopy can be easily maintained at a distance of at least 10 feet from other trees and the house. Shorter deciduous shrubs are preferred.

- Ornamental evergreen shrubs and trees, such as juniper, mugo pine,

Austrian pine, and others, should not be used within this area.

- Clear all flammable vegetation from within 10 feet of a propane tank.

- Remove tree limbs that are within 10 feet for chimney, house, deck, and roof. Remove limbs that are encroaching on power lines.

Step Six- Create a Noncombustible Area at least 5 feet wide around the base of the house:

The area immediately adjacent to a house is of critical importance to house survival during a wild fire. It should consist of noncombustible landscape materials and ignition-resistant, low volume plants.

Noncombustible Area Tips

- Remove dead shrubs and trees, dried grass, flowers and weeds; dead branches; and firewood from this area.

- Routinely remove fallen needles and leaves.

- Do not use bark and wood mulches.

- Do not use wood landscape timbers or boards.

- Remove flammable shrubs and trees. This includes native plants. Ornamental plants that should be removed or not planted in this area include evergreens, Scotch broom, and large exotic grasses. When removing plants, leave their root system in place.

- Noncombustible landscape materials, such as gravel, rock, and brick are acceptable.

- Use low-growing (less than 18 inches tall), irrigated, herbaceous pants, such as lawn, clover, erosion-control grasses, flowers, some ground covers and succulents.

- Use low-growing (less than 18 inches tall), irrigated, deciduous shrubs recommended for the area in individual specimens or small groups. Prune these shrubs to remove branches in contact with the ground and sides of the house.

- Do not plant shrubs under first-story windows, under soffit vents, in front of foundation vents, or in corners.

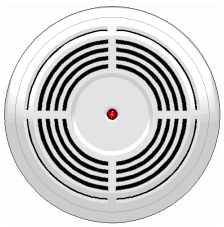
- Use trellises made of noncombustible materials.

Step Seven- Maintain the Defensible Space Zone:

Maintaining a defensible space zone is an ongoing activity. Plants grow back, and flammable vegetation needs to be routinely removed and disposed of properly. Before each fire season, reevaluate your property using the previous six steps and implement the necessary defensible space recommendations.

FIRE PREVENTION TIPS FOR INSIDE THE HOME

- **Carbon Monoxide Detectors:** Carbon monoxide (CO) detectors are the only way to alert people to dangerous levels of carbon monoxide before tragedy strikes. Carbon monoxide is a byproduct of combustion from gas appliances or automobiles. Only use detectors that are officially approved and are clearly marked with the American Standard- UL2034 symbol.



- **Smoke Detectors:** Smoke detectors are inexpensive devices that save many lives. Current fire codes require a smoke detector in every bedroom and in common areas. Many older or retrofitted smoke detectors are not wired to the home's electrical circuits and operate by self-contained batteries. Replace the batteries at least once a year or when the unit is "chirping" to indicate low battery power.

- **Sprinkler Systems:** A sprinkler system installed inside the home can provide effective fire protection. It will operate automatically and can extinguish a fire while you are asleep or away from home. Be sure your home sprinkler system is installed by a contractor licensed by the State Fire Marshal or State Contractor's Licensing Board.

- **Portable Fire Extinguishers:** Portable fire extinguishers enable you to quickly respond to a fire. Extinguishers are rated by the type of fire they can effectively extinguish: "A" – wood or cloth fire, "B" – liquid fires, "C" – electrical fires, and "D"- metal fires.

  - Be sure all family members know the extinguisher's location and its operation.
  - Get the extinguisher serviced annually and recharged after each use.
  - The term P-A-S-S will help you remember the right way to use the extinguisher:

    Pull the safety pin.
    Aim the extinguisher.
    Squeeze the trigger.
    Sweep the extinguisher at the base of the fire.

- **Plan Your Escape:** Even with early warning from a smoke detector, escaping a house fire can be difficult. By planning and practicing exit drills, you can better prepare your family for a fire emergency. Contact the Southern Marin Fire District for advice.

- **Flammable Paint and Stain Products:** Paint and stain products are hazardous materials. All such products should be stored in a cool, dry place, away from any heat source. Contact the Southern Marin Fire District for specific disposal requirements in your area.

- **Other Heating Systems:** Kerosene and other fuel-fired heaters should be used properly. Follow the manufacturers' instructions when using these devices.

  - Be sure they are approved by an independent testing laboratory. Heaters should turn off if accidentally tipped over.
  - Use only the fuels specified by the manufacturer for each particular heating appliance.
  - Refuel heaters outdoors.
  - Keep children away from heaters.
  - Never burn charcoal indoors.

- **Candle Safety:** Candles are safe products, but can become hazardous when used improperly or in an unsafe manner.

  - Always keep a burning candle within sight.
  - Keep candles out of the reach of children and pets.
  - Before burning, trim wicks to ¼-inch.
  - Always use a heat-resistant, sturdy candleholder that is large enough to contain any melted wax.
  - Keep burning candles away from drafts, vents, air currents, and easily combustible materials.
  - Always burn candles in a well-ventilated room.
  - Extinguish the flame when 2 inches of wax remains, or when ½-inch remains if in a container.
  - Use a candle snuffer to extinguish candles.

- **Wood Stoves and Fireplaces:** Heat your home safely by following these tips concerning wood stoves and fireplaces.

  - Install according to the manufacturer's directions.
  - Never use a flammable liquid, such as gasoline, to start a fire.
  - Carefully follow directions when suing synthetic logs.
  - Keep a glass or metal screen in front of the fireplace opening to prevent embers or sparks from escaping.

- Keep flammable materials off the mantle and at least 3 feet away.
- Do not use excessive amounts of paper to start your fire.
- Do not burn colored paper, which can accelerate creosote buildup and increase the likelihood of a chimney fire.
- Avoid burning wood slowly for long periods of time, which contributes to soot and creosote buildup. Instead, allow the wood to burn rapidly for 10 to 15 minutes several times a week to help reduce creosote buildup. Use dry wood for more efficient burning.
- Dispose of ash properly. Regularly remove ashes and place them in a metal container with a lid. Place the ash-filled container outdoors, away from combustible materials. Do not set the ash container on a wood surface, such as a deck, or on other combustible materials. Once ashes are cool, they can be spread into flower beds, gardens, or compost piles.
- Screen chimney and stovepipe openings with an approved spark arrestor cap.
- Inspect and clean chimneys at least once a year.

DISASTER PLANNING: EARTHQUAKES

WHAT TO EXPECT IN AN EARTHQUAKE

An earthquake is the shaking of the surface of the earth resulting from underground movement along a fault plane. During an earthquake the "solid" earth moves like the deck of ship. The actual movement of the ground is seldom the direct cause of death or injury. Most causalities result from falling objects and debris because the socks can shake, damage or demolish buildings. Earthquakes may also trigger landslides, cause fires, and disrupt utilities.

BEFORE AN EARTHQUAKE

- *Check your home for potential hazards.* Place large and heavy objects on lower shelves. Securely fasten shelves to walls. Brace or anchor high or top-heavy objects. Strap water heaters to keep them from falling.

- *Know where and how to shut off electricity, gas and water* at main switches and valves. Have the proper tools close by so that there is no delay when it is time to shut off the utilities.

- *Hold occasional drills* so each member of your household knows what to do in an earthquake.

- Have your Disaster Supply Kit *ready and accessible.*

WHAT TO DO DURING AN EARTHQUAKE

- *First and foremost, stay calm.* Think through the consequences of any action you take.

- *If you are inside, stay inside;* take cover under a heavy desk or table. Stand under a supported doorway or along the inside wall away from any windows.

- *If you are outside stay there,* stay away from tall buildings, look up and watch for falling objects. If you are in a moving car, safely stop the car and remain inside.

WHAT TO DO AFTER AN EARTHQUAKE

- *Check yourself and people nearby for injuries.* Provide first aid if needed. Be prepared for additional earthquake shocks called "aftershocks." These are smaller than the main shock, some may be large enough to cause additional damage or bring weakened structures down.

- *Check gas, electric, and water lines.* If damaged, shut off valves. Turn off appliances. Do not light matches or candles. Check for natural gas leaks by odor only. If a gas leak is detected, open all windows and doors, leave immediately, and do not re-enter the building until a utility official says it is safe.

- *Check your home for damage*, approach chimneys with caution. If there is any question of safety leave your home and do not re-enter until the item can be checked. Open any closet or cupboard cautiously due to falling objects.

- *Do not flush toilets* until sewer lines are checked.

- *Check with neighbors* to see if your assistance is needed.

DISASTER PLANNING: TSUNMAI

WHAT TO EXPECT FROM A TSUNMAI

Tsunamis (pronounced soo-ná-mees), also known as seismic sea waves, are a series of enormous waves created by an underwater disturbance such as an earthquake, landslide, OR volcanic eruption. A tsunami can move hundreds of miles per hour in the open ocean and smash into land with waves as high as 100 feet or more.

From the area where the tsunami originates, waves travel outward in all directions. Once the wave approaches the shore, it builds in height. The topography of the coastline and the ocean floor will influence the size of the wave. There may be more than one wave and the succeeding one may be larger than the one before. That is why a small tsunami at one beach can be a giant wave a few miles away.

All tsunamis are potentially dangerous, even though they may not damage every coastline they strike. A tsunami can strike anywhere along most of the U.S. coastline.

Earthquake-induced movement of the ocean floor most often generates tsunamis. If a major earthquake or landslide occurs close to shore, the first wave in a series could reach the beach in a few minutes, even before a warning is issued. Areas are at greater risk if they are less than 25 feet above sea level and within a mile of the shoreline. Drowning is the most common cause of death associated with a tsunami. Tsunami waves and the receding water are very destructive to structures in the run-up zone. Other hazards include flooding, contamination of drinking water, and fires from gas lines or ruptured tanks.

Although there are no known recorded deaths from tsunami action in Marin County, there were small tsunami impacts in 1940’S and the 1960’s. In 1964, the Alaskan earthquake caused a small tsunami that damaged buildings, docks, and boats in Sausalito and San Rafael.

Tsunami Terms

Advisory
An earthquake has occurred in the Pacific basin, which might generate a tsunami.

Warning
A tsunami was, or may have been generated, which could cause damage; therefore, people in the warned area are strongly advised to evacuate.

Watch
A tsunami was or may have been generated, but is at least two hours travel time to the area in Watch status.

What to do Before and During a Tsunami

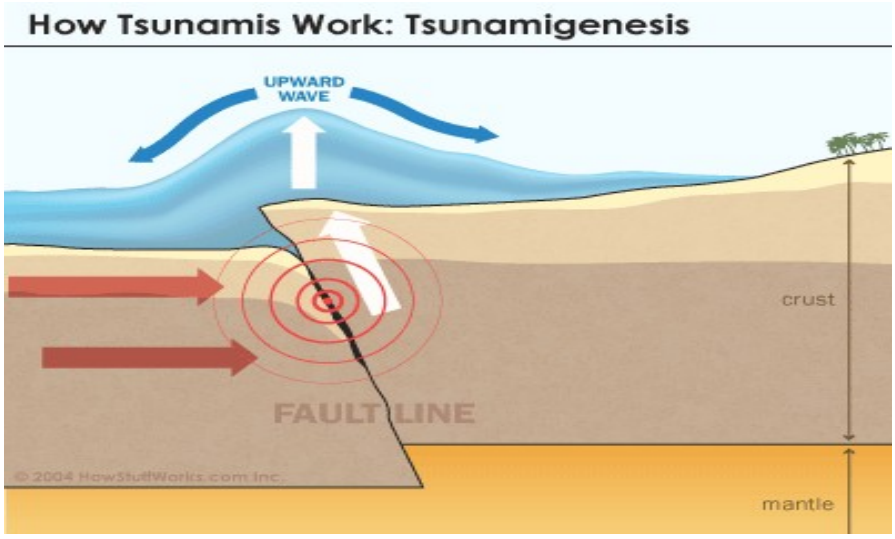
The following are guidelines for what you should do if a tsunami is likely in your area:

- *Turn on your radio* to learn if there is a tsunami warning if an earthquake occurs and you are in a coastal area.
- *Move inland to higher ground* immediately and stay there.
- *Stay away from the beach.* Never go down to the beach to watch a tsunami come in. If you can see the wave you are too close to escape it.
- *CAUTION - If there is noticeable recession in water away from the shoreline this is nature's tsunami warning and it should be heeded.* You should move away immediately.

What to Do After a Tsunami

The following are guidelines for the period following a tsunami:

- *Stay away from flooded and damaged areas* until officials say it is safe to return.
- *Stay away from debris in the water*; it may pose a safety hazard to boats and people.
- *Save yourself - not your possessions.*



DISASTER PLANNING: FLOODS

WHAT TO EXPECT DURING A FLOOD EVENT

Floods are one of the most common hazards in the United States. However, not all floods are alike. Some floods develop slowly, sometimes over a period of days. But flash floods can develop quickly, sometimes in just a few minutes and without any visible signs of rain. Flash floods often have a dangerous wall of roaring water that carries rocks, mud, and other debris and can sweep away most things in its path.

BEFORE A FLOOD

Check drains and drainage to divert water away from your home. Build barriers and landscape around your home or buildings to reduce or stop floodwaters and mud from entering. Seal lower walls with waterproofing compounds and install "check valves" in sewer traps to prevent flood water from backing into drains.

DURING A FLOOD

- *Listen for updates from the radio and television.* Know the location for sandbags and sand. Move valuables out of the path of water or mud. Contact local authorities and notify them of the location of the flooding. If necessary, turn off utilities before problems escalate.

- *If water is diverted* check with neighboring properties to ensure that additional damage is not occurring.

- *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.

AFTER THE FLOOD

- *Prior to entering a building, check for structural damage.* Check the foundation walls and posts. Make sure it is not in danger of collapsing. Watch for electrical shorts or live wires before making certain that the main power switch is turned off. Remove all floodwaters from under structures as soon as possible.

- *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.

- *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.

DISASTER PLANNING: LANDSLIDES

When most Californians 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. However, residents of steep hillsides and canyons need to include another type of ground movement in their thoughts and plans.

Areas left barren of grasses, plants, shrubs and trees by fire are vulnerable to landslides through sliding, falling and flowing soil, rock, mud, brush and trees, particularly during and after heavy rains,

Although slow-moving landslides can cause significant property damage, they usually don't cause any deaths. Mudslides, how- ever, are much more dangerous. According to the California Department of Conservation, mudslides can easily exceed speeds of 10 miles per hour and often flow at rates of more than 20 mph. Because they travel much faster, mudslides can cause deaths and injuries as well as significant property damage.

According to the Department of Conservation, landslides and mudslides caused by the 1997-98 El Niño phenomenon caused three deaths and 19 injuries in Southern California alone. Such earth movement also destroyed at least 44 homes, damaged 94 others and resulted in at least the temporary evacuation of more than 1,000 people.

Wherever you live, work or play, use the following recommendations to help reduce your risk of death, injury and property losses from landslides, mudslides and other types of ground failure.

BEFORE THE LANDSLIDE

You can reduce the potential impacts of land movement by taking steps to remove yourself from harm's way:

- Assume that burn areas and canyon, hillside, mountain and other steep areas are vulnerable to landslides and mudslides.
- 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.
- Purchase supplies to protect your home:
    - Hammer
    - Nails
    - Plywood

    - Rain gauge
    - Sand
    - Sandbags
    - Shovel

- Limit the height of plants near buildings to 18 inches.
- Use fire-retardant plants and bushes to replace chaparral and highly combustible vegetation.
- Water landscape to promote early growth.
- Eliminate litter and dead and dry vegetation.
- Inspect slopes for increases in cracks, holes and other changes.
- Contact your local public works department for information on protection measures.

WHEN IT RAINS

- Monitor the amount of rain during intense storms. More than three to four inches of rain per day, or 1/2-inch per hour, have been known to trigger mudslides.
- Look for geological changes near your home:

    - New springs
    - Cracked snow, ice, 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.
- Prepare to evacuate if requested to do so.
- Respect the power of the potential mudslide. Remember, mudslides move quickly, 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.
- Make pools, spas, patios and other elements the next priority.

Implement protection measures when necessary:

- Place sandbags
- Board up windows and doors

KEY CONSIDERATIONS

- Use permanent measures, rather than sandbags, if possible.
- Deflect, rather than stop or dam debris.
- Use solutions that do not create problems for your neighbors.

EMERGENCY NOTIFICATIONS

Since no single method of communication is failsafe, public safety officials may use a combination of many methods to keep the public informed during an emergency. Some of these methods are:

1. Local government Public Information Officers (PIO) gather information from first responders and elected officials and produce press releases that are then broadcast by local media outlets.

2. Emergency Managers can initiate the Emergency Alert System (EAS). This system interrupts local radio and television broadcasts with emergency alerts and instructions to the public. The City of Sausalito also has our own Emergency Alert System that would provide information and instructions to our community in times of emergency. The Sausalito EAS is broadcast over Radio Sausalito at 1610 AM.

3. First responders and credentialed volunteers can go door-to-door alerting citizens of impending hazards.

4. TENS and/or Alert Marin/MEANS can be used to contact residents via telephone, e-mail, or messaging in order to relay emergency information.

TENS is a Marin County-wide computerized telephone notification system.

ALERT Marin/MEANS are alert notification systems that allow officials to immediately notify/alert Marin County residents of emergencies by e-mail, cell phone, pager, and PDA.

IMPORTANT PHONE NUMBERS AND WEBSITES

WHEN THERE IS AN ACTIVE EMERGENCY CALL 911

City of Sausalito
(415) 289-4100
http://www.ci.sausalito.ca.us/

Sausalito Police Department
(415) 289-4170
http://www.ci.sausalito.ca.us/index.aspx?page=154

Southern Marin Fire Department
(415) 388-8182
http://www.southernmarinfire.org/

Marin County Sheriff's Office of Emergency Services
(415) 499-6584
http://www.marinsheriff.org/about.aspx?gi_id=46

American Red Cross
415-427-8000
http://www.redcross.org/

National Weather Service
www.weather.gov

Federal Emergency Management Agency
http://www.fema.gov/

California Emergency Management Agency
(916) 845-8510
http://www.oes.ca.gov/

Caltrans
http://www.dot.ca.gov