DISASTER PREPAREDNESS

THE 2020 CITIZEN'S GUIDE

PRESENTED TO YOU BY:
The City of Sausalito
Community Safety & Disaster Preparedness Committee

TABLE OF CONTENTS

CHAPTER		PAGE
1)	WELCOME	2
2)	GET INFORMED & MAKE A FAMILY PLAN	3
3)	PREPARING AT WORK	5
4)	WEATHER TERMS	7
5)	EVACUATIONS	7
6)	DISASTER PLANNING: FIRES	10
7)	DISASTER PLANNING: EARTHQUAKES	20
8)	DISASTER PLANNING: TSUNAMI	21
9)	DISASTER PLANNING: FLOODS	23
10)	DISASTER PLANNING: LANDSLIDES	24
11)	EMERGENCY NOTIFICATIONS	26
12)	EMERGENCY NUMBERS AND WEBSITES	27

EDITORIAL TEAM

Emergency Services Manager: Captain Bill Fraass, Sausalito Police Department
Fire Marshal: Chief Fred Hilliard, Southern Marin Fire District
Contributing Editor: Joe Paulino

COMMUNITY SAFETY & DISASTER PREPAREDNESS COMMITTEE

Chair: Tom Perazzo Vice Chair: Sandra Bushmaker Secretary: Joe Paulino
Members: Bonnie MacGregor, Joan Saxton, Jane Kendell
City Staff Liaison: Captain Bill Fraass City Council Liaison: Joe Burns
Emergency Services Coordinator: Mike McKinley
Fire District Liaisons: Chief Chris Tubbs, Deputy Fire Chief Ted Peterson
Bay Model, Army Corps of Engineers Liason: Christanne Gallagher

WELCOME

The City of Sausalito's Disaster Preparedness/Emergency Operations Program is pleased to provide you with Disaster Preparedness: The 2019 Citizen's Guide. This guide includes information for use before, during, and after an emergency. Please keep it in a location that will guarantee its ease of use. We urge you and all members of your household or workplace to be familiar with it.

There is no way to predict what kind of disaster will strike or when an 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 to be as prepared as possible during times of emergency. Please refer to the Disaster Preparedness portion of the Sausalito Police Department's website for more 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
Captain
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 yourself 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.
- Register to receive emergency notifications via landline, text, email or smartphone by registering for ALERT MARIN at https://www.marinsheriff.org/services/emergency-services/alert-marin
- 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 – and your emergency plans - to children. 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 your landlines and also enter them into your cell phone's list of contacts.
- *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 call *911*, send texts, and 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 containers. 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.**
- **First Aid Kit**, a first aid book, & required prescription medications.
- **Blankets or sleeping bags** – at least one per person.
- **Copies (not originals)** of Passports, ID cards & Driver's License.
- **Battery-powered radio**, flashlights, portable battery pack for cell phone charging, & plenty of extra batteries.
- **Fire Extinguisher** – ABC type.
- **Credit cards, cash, and change.**
- **Extra set of car and house keys.**
- **Extra pair of eye glasses.**
- **Toothbrush, toothpaste, shampoo, & toilet paper.**
- **A list of family physicians and their contact info**.
- **A list of important family info, including phone numbers.**
- **Special items for infants, elderly, or disabled family members.**

SANITATION SUPPLIES

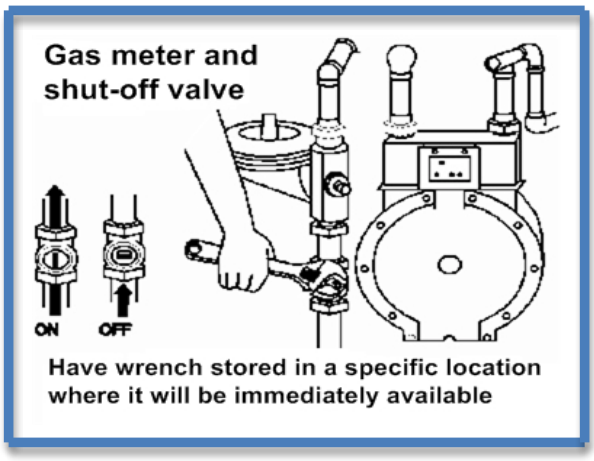
- **Large plastic trash bags for waste, tarps, & rain ponchos.**
- **Large trash cans.**
- **Bar soap and liquid detergent.**
- **Household bleach.**
- **Rubber gloves.**

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.



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 a 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, eye protection such as goggles, 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. These 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 the 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 law enforcement or fire personnel.

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 as safe*** by local officials. Know where you are going *before* you leave.
- ***Bring extra cash*****.** Banks may be closed and ATMs may not work.
- ***Know where to locate*** paperwork, passports, insurance cards, family photos, documents, and back-up hard drives that are important to you.
- ***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 also 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-sized *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.
- ***Work 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 & THE WILDLAND URBAN INTERFACE

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, wildfires have not historically posed a major threat, though the perimeter of the City from Alexander Avenue in the south through Wolfback Ridge in the west are adjacent to wildland areas and open space. Summer fog helps keep the vegetation somewhat moist and green throughout the fire season, however recent changing weather patterns have posed a larger threat for wildfires within the city. Warmer weather and hot days influenced by easterly winds from the central valley dries vegetation at a higher rate than a normal summer season, helping to crate a risk that we need to be prepared for.

WHAT TO EXPECT DURING A WILDLAND FIRE

Wildland fires can start and move very quickly. Smoke, embers and debris move quickly by the wind created by the fire. The situation can change rapidly. Listen to the radio or television for updates and be prepared to leave in a hurry.

One of the misconceptions about home loss during wildfires is that loss occurs as the main body of the fire passes. Research shows that the flame front moves through an area in a very short time: anywhere from 1 to 10 minutes, depending on the vegetation. Homes do not spontaneously ignite - they are lost as a result of the growth of initially small fires, either in or around the structure.

PREPLANNING FOR A WILDLAND FIRE

Personal protective clothing and gear:

- Wear only cotton or wool clothes.
- Proper attire includes long pants, long-sleeved shirt or jacket, and boots.
- Carry gloves, water to drink, and goggles.
- Get a mask for smoke that's rated N95 or P100. If that's not possible, cover your nose and mouth with a handkerchief.
- Keep a flashlight and portable radio with you at all times.
- Tune in to local radio stations and listen for instructions.

Prepare your vehicle:

- 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 or by battery backup.

If you have to evacuate, on the INSIDE of your home:

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

If you have to evacuate, on the OUTSIDE of your home:

- Place combustible patio furniture in the house, garage, or 5 feet away from the structure.
- If possible, close all exterior vents, including fireplace vents.
- Prop a ladder against the house to provide firefighters with roof access.
- Make sure that all garden hoses are connected to faucets and attach nozzles set on spray with the water off.
- 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 WILDLAND FIRE OCCURS

- ***Stay calm and do not panic.*** You will think more rationally if you remain calm. Keep family members and pets together at all times. Wear long pants and long sleeved shirts made from natural fibers or denim, 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 as possible.

- ***If evacuation routes are blocked*** you may be required to walk out or shelter in place until the fire passes. 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 to leave until the fire has passed and you can safely exit the structure.

WILDLAND FIRE THREATENS YOUR HOUSE IN THREE WAYS

DIRECT CONTACT BY FLAMES

This type of threat occurs when vegetation and other fuels burning near the house produce flames that come in direct contact with the home and ignite the siding, decks or roofing. Often, this happens when fire is directly transferred from burning material against the structure or by another structure close to it.

RADIATED HEAT TRANSFER

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

FLYING EMBERS

Embers are light enough to be blown through the air and can result in the rapid spread of wildfire by spotting (in which embers are blown ahead of the main fire, starting other fires). Should these embers land on or near your house, they could just as easily ignite nearby vegetation, or enter the home or attic through openings or vents, igniting furnishing or combustible debris in those locations. Embers account for the largest number of structure loss in wildfires.

CREATE A DEFENSIBLE SPACE ZONE AROUND YOUR HOME

WHAT IS A DEFENSIBLE SPACE ZONE?

A Defensible Space Zone is the buffer you create between a structure on your property and the vegetation or wildland that surrounds it. Defensible space is *essential* to improve your home's chance of surviving a wildfire. Initially creating a defensible space may sound daunting, but sometimes it can be as simple as a properly maintained backyard.

THERE ARE SEVEN STEPS TO CREATING A DEFENSIBLE SPACE:

STEP ONE - Determine the size of an effective defensible space:

The size of a defensible space is generally the distance that extends outward from the house in all directions. The recommended distance is a minimum of 100 feet, or to your property line. A representative of the Southern Marin Fire District would be happy to walk your property with you for a more accurate defensible space examination based on the specific characteristics of your home.

If this defensible space zone exceeds your property boundaries, you must seek permission from your neighbors before doing any work on their property. The effectiveness of a defensible space improves when entire neighborhoods work together towards creating it. Work with your neighbors to help provide adequate defensible space for both of your properties.

STEP TWO - Remove dead vegetation:

Dead vegetation should be regularly removed from the Defensible Space Zone. This 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.

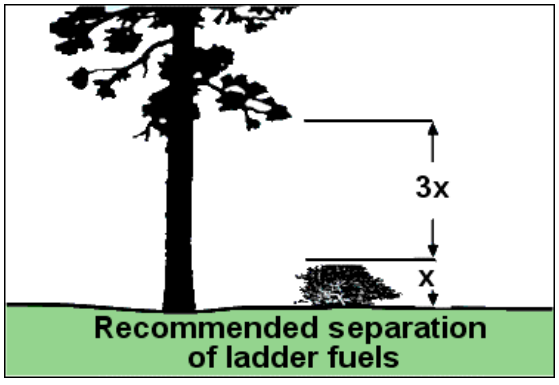
- The area **within 5 feet** of the house should be kept clear of leaves, needles, fallen branches and all other combustibles.
- From **5 feet to 30 feet** of the house, do a clean-up every spring after the rainy season has stopped or prior to June 1st. Keep it "Lean, Clean & Green" throughout the fire season.
- From **30 feet to 100 feet** from the house, clean up branches and other wind-blown debris as needed. Do not allow fallen needles and leaves to exceed a depth of 3 inches.
- Create and maintain an **Access Zone** so that emergency vehicles and first responders are able to access your property. This space should extend at least 10 ft. horizontally from the edge of roads and driveways, and 14 ft. overhead.

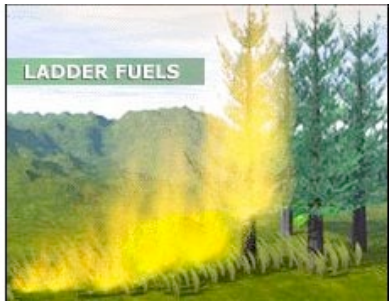
STEP THREE - Create a separation between trees and shrubs:

Within the Defensible Space Zone, native trees and shrubs should not be in a dense stand. Thin out dense trees by trimming limbs from 6 - 10 ft. from the ground, and trimming the canopies to create separation. Provide spacing between shrubs that's at least two times the height of the mature plant. Slope of land and species of plant also affect the amount of separation needed. For example, a property located on a steep slope with large species of trees and shrubs will require greater separation.

STEP FOUR - Remove ladder fuels:

Vegetation that can carry a fire burning in low-growing plants to taller plants is called “ladder fuel.” Trees should have lower limbs removed from 6 - 10 ft. above the ground. Shrubs and trees growing under the drip line should be kept low and well-maintained or 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 - From 5 to 30 feet from the house, keep it "Lean, Clean & Green":

There are two goals for the Lean, Clean & Green Area. The first is to remove all dead grasses, weeds, foliage and other fallen debris. This will help prevent embers from igniting combustible material close to the structure. The second goal is to limit fire to a low intensity burn if it does ignite near the house.

Removing low hanging limbs, separating canopies of trees, maintaining shrubs, and removing the dead material from the inner regions are ways to help existing landscape. Using fire resistant plants and keeping them healthy and well-irrigated is recommended for ground level vegetation. Remove “gorilla hair” or shredded back mulch and use compost or heavy bark mulch to maintain moisture and avoid erosion. Well-maintained and carefully selected vegetation helps keep the combustible material to a minimum around the property.

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 after the rainy season has ended.
- 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 in.), irrigated, herbaceous plants, such as lawn, clover, erosion-control grasses, flowers, and succulents.
- Ornamental, deciduous trees and shrubs can be used as specimens or in small groups. They should be irrigated, and kept healthy, 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, cypress, pines, and bay should be removed within this area.
- Clear all vegetation 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.
- Hardscaping this area with noncombustible landscape materials, such as gravel, rock, and brick is acceptable, and is recommended around the base of structures.
- Use low-growing (less than 18 inches tall), irrigated, herbaceous plants, such as lawn, clover, erosion-control grasses, flowers, some ground covers and succulents.
- Use low-growing (less than 18 inches tall), irrigated, deciduous shrubs 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. No vegetation is recommended within 5’ of any structure.
- Use trellises made of noncombustible materials.
- Remove combustible outdoor furniture and replace with metal or non-combustible varieties.
- Remove, relocate, or construct a fire-resistant enclosure for combustible materials including garbage and recycling containers, lumber, trash, and patio accessories

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. After the wet season, reevaluate your property using the previous six steps and implement the necessary defensible space recommendations.

PG&E's PUBLIC SAFETY POWER SHUTOFF PLAN (PSPS)

As a response to the large wild fires of the recent past, Pacific Gas & Electric has launched PSPS - a statewide effort to help reduce fire risk. This plan will involve temporary power shutoffs to homes and businesses in selected neighborhoods deemed at risk due to a variety of factors including:

- **Red Flag Warnings** issued by the National Weather Service
- **Low Humidity Levels** of generally 20% and below
- **High Winds** generally above 25 mph with gusts of over 45 mph
- **Low Moisture Content** a condition of dry fuels & live vegetation
- **Real-Time Observation** by PG&E's Wildfire Safety Operations Center

When a PSPS is scheduled, PG&E customers will be notified via a wide variety of methods such as Alert Marin, Nixle, phone, texts, emails, local news, social media and Public Safety personnel. Notifications and updates may come:

- **48 hours prior to shutoff**
- **24 hours prior to shutoff**
- **Immediately before shutoff**
- **During the outage itself**
- **Upon power restoration**

Once power is shut off, there must be a satisfactory reduction in hazardous weather conditions and a visual inspection of all affected power lines before it can be restored. PSPS outages may result in residents and businesses being without power for several days. Because of this it is extremely important that you and your family use any advance notice to prepare for what may be an extended period without electricity.

Plans for coping with such outages may include measures such as stocking up on batteries, flashlights, manual chargers and non-perishable food, investing in a generator, or even temporarily relocating until power is restored. Each household's specific situation is unique. The best time to assess your own needs and craft a response plan to an extended power outage is well before PG&E's 48-hour notification of a Public Safety Power Shutoff.

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. The best places to install CO detectors are in or near bedrooms and in garages. Only use detectors that are clearly marked with the American Standard UL2034 approval symbol.
- **Smoke Detectors:** Smoke detectors are required by the State Fire Marshall. Current fire codes call for a smoke detector outside of every bedroom and on each additional story of the house, including basements. Many older or retrofitted smoke detectors are not wired to the home's electrical circuits and operate by self-contained batteries that must be replaced at least once a year. New smoke alarms that are solely battery powered must have a battery that is capable of powering the smoke alarm for at least 10 years.

- **Sprinkler Systems:** An automatic sprinkler system installed inside the home can provide effective fire protection. It is activated by heat from a fire, and discharges water over the fire area. A fire sprinkler system must be designed & installed by a licensed C-16 Sprinkler contractor.
- **Portable Fire Extinguishers:** Portable fire extinguishers enable you to manually douse small fires or low-level flames. 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 everyone in your house knows the extinguisher's location and how to use it.
  - Get the extinguisher serviced annually & recharged after each use.
  - Remember to "P - A - S - S" when using an 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. An escape plan should include a main and secondary exit from each room, and a designated meeting spot away from the structure. For more evacuation tips, visit https://firesafemarin.org/evacuation/family-preparedness
- **Flammable or Hazardous Products:** Paints, stains, gasoline containers, oil, and many other products used in home improvement projects are flammable and hazardous. Store such products in a closed, cool, dry place, away from any heat source. For ways to properly dispose of flammable or hazardous materials in Marin County, visit https://marinhhw.com.
- **Heating Systems:** Kerosene and other fuel-fired heaters should be used and stored according to manufacturers' instructions.

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

- **Candle & Open-Flame 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, or cover it with the container's glass or metal lid.

- **Wood Stoves & Fireplaces:** Heat your home safely by following these tips:

  - Install according to the manufacturer's directions.
  - Never use a flammable liquid, such as gasoline, to start a fire.
  - Carefully follow directions when using synthetic logs.
  - Before use, make sure your fireplace damper or flue is open so that the smoke will travel up the chimney and not into your house.
  - 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. 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 your house's 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 shocks 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. Don't 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: TSUNAMI

WHAT TO EXPECT FROM A TSUNAMI

Tsunamis (pronounced soo-NA-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 in Marin County, there are no known recorded deaths from tsunami action, there were small tsunami impacts in the 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:

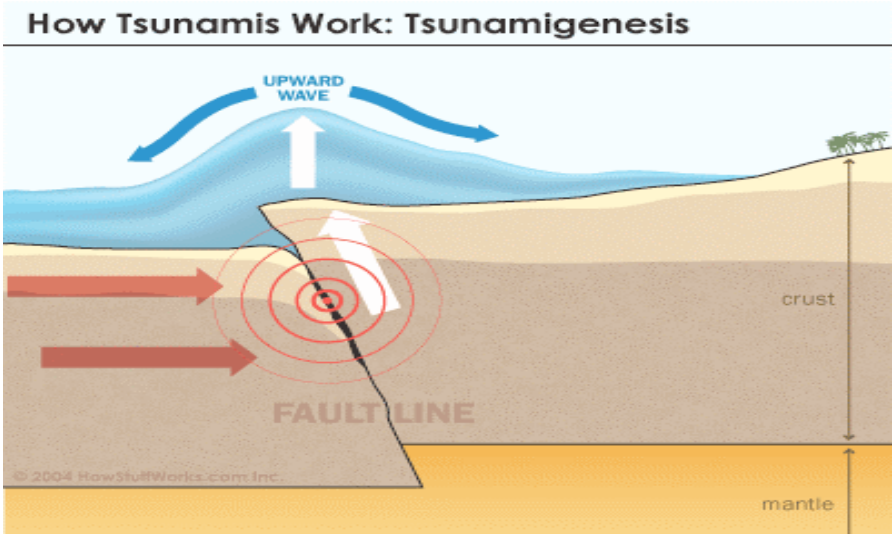
Guidelines for what you should do if a tsunami is likely in your area:

- ***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 over a period of days. But flash floods can develop quickly, sometimes in just a few minutes 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 water is not moving. Use a stick to check 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, however, 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, cause damage, and can kill.

Prioritize protection measures:

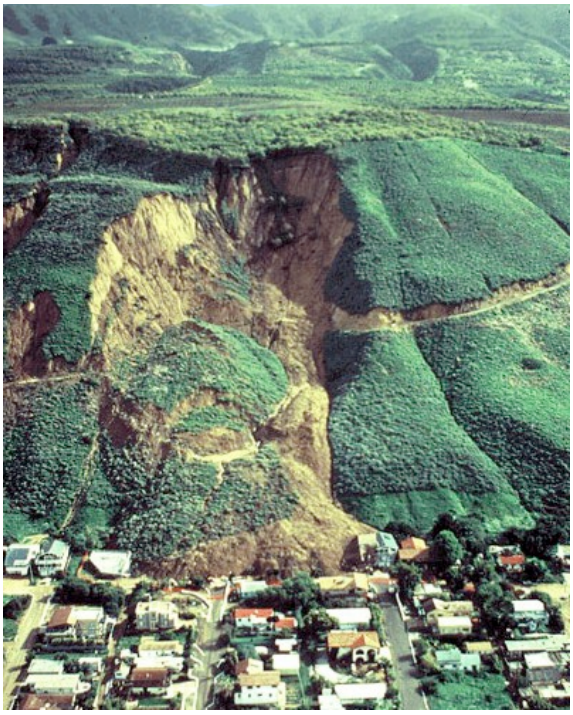
- Make your health and safety and that of family members the number one priority.
- Make your home the number two priority.
- Make pools, spas, patios and other elements the next priority.

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.
3. **First responders and credentialed volunteers** can go door-to-door alerting citizens of impending hazards.
4. **Alert Marin, Twitter, and Nixle** can be used to contact residents via telephone, email, or messaging in order to relay emergency information.

ALERT MARIN is a Marin County-wide computerized telephone notification system. This system also allows officials to immediately notify/alert Marin County residents of emergencies by call, text, email or smartphone. Register for it at https://www.marinsheriff.org/services/emergency-services/alert-marin

IMPORTANT PHONE NUMBERS AND WEBSITES FOR MORE INFORMATION

WHEN THERE IS AN ACTIVE EMERGENCY CALL 911

City of Sausalito
(415) 289-4100
http://www.sausalito.gov/

Sausalito Police Department
(415) 289-4170
http://www.sausalito.gov/departments/police-department

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

Marin County Sheriff's Office of Emergency Services
(415) 473-7250
https://www.marinsheriff.org/about-us/field-service-bureau/office-of-emergency-services

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 Office of Emergency Services
(916) 845-8510
http://www.caloes.ca.gov/

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