

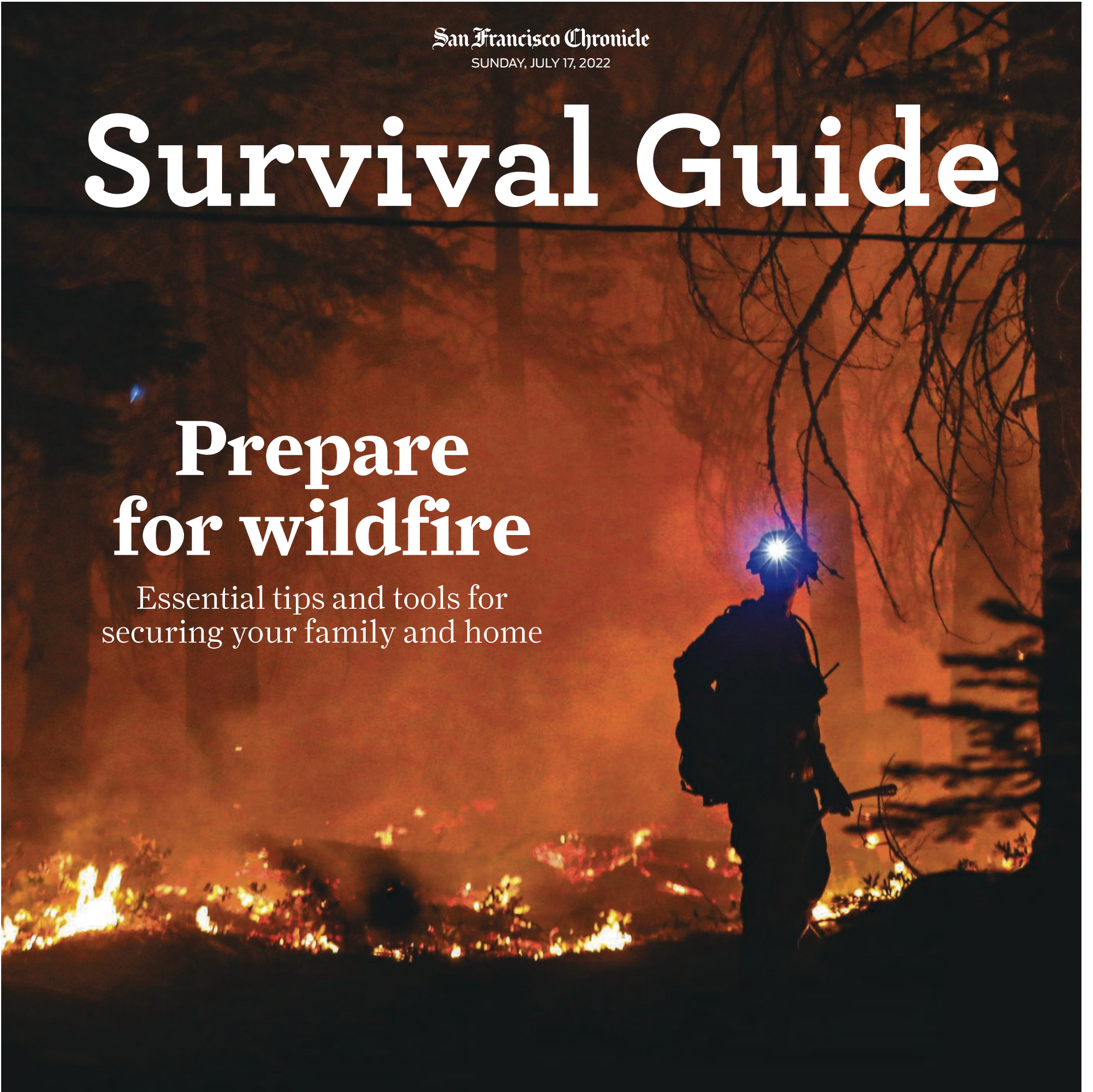
San Francisco Chronicle

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Survival Guide

Prepare for wildfire

Essential tips and tools for
securing your family and home



SURVIVAL GUIDE

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ON THE COVER: A firefighter monitors the Caldor Fire near a home in the Strawberry (El Dorado County) area on Aug. 29, 2021. Chronicle photo by Brontë Wittpenn



A firefighter with Cal Fire San Mateo-Santa Cruz Unit (CZU) performs a damage assessment of a property destroyed by the Dixie Fire in Greenville in August.



Californians are living in an age of extreme fire

By Kurtis Alexander

California is threatened with another difficult fire season this year as the state's wildfire crisis collides with drought.

In anticipation, the state and federal governments have bumped up budgets for boosting forest resiliency. Firefighting agencies have worked to increase staffing. Communities have organized to build fire lines and clear trees out of neighborhoods.

"We're doing everything we can on multiple fronts to prepare to make sure the state is less impacted than years prior," said Chris Amestoy, a staff chief for Cal Fire, the state's fire-fighting agency. "We're really doing everything possible."

Still, in an age of extreme wildfire, the prevention work can go only so far to tame California's increasingly unruly infernos.

Amestoy and other fire experts advise that those living in high-risk areas take a moment now, before the peak of fire season, to figure out what to do if the flames bear down. Experts say that even those who don't live in places susceptible to burning should have a to-do list that includes such items as preparing for smoke and power outages.

The Chronicle's Survival Guide offers the latest guidance from firefighters, insurance companies, fire victims and others on how to be ready. This guide can help with how to ensure safety around your home, what to include in an emergency bag, how to evacuate your pets, where to turn for info when the internet is down and more.

Online extra

The guide is available in a downloadable format at [sfchronicle.com/survival](https://www.sfchronicle.com/survival).

SURVIVAL GUIDE

Survival from page S3

Even if you have an emergency plan, experts say it's worth reviewing in light of the greater threat that looms this year.

"The message for people to take home is that these fire seasons that seem so extreme are no longer exceptional things," said LeRoy Westerling, a climate scientist at UC Merced. "They can happen any time."

The past two years are case in point.

The devastating 2021 fire season gave rise to the nearly million-acre Dixie Fire in the northern Sierra Nevada, which wiped out the town of Greenville, and the Caldor Fire west of Lake Tahoe, which leveled the community of Grizzly Flats. The more than 2.5 million acres burned in California last year was second only to the more than 4 million acres burned the year before — the most in modern history.

The recent surge in wildfires is largely the result of thick vegetation that built up from decades of fire suppression, and then was primed by the warming climate. It's a multipronged problem that is not easy to fix.

Cal Fire and the U.S. Forest Service are working to reduce the accumulation of forest fuels, pledging to thin trees and conduct prescribed burns on 1 million acres a year in the state by 2025. The Forest Service, on top of its annual operating budget, has committed \$655 million in each of the next five years for forest management, much of it for California, while Gov. Gavin Newsom plans to add several hundred million dollars to Cal Fire's annual budget over the next two years for similar efforts.

But even with an uptick in forestry, fire experts say it will take decades to clear brush and trees across California's 33 million acres of woodlands and restore a more natural, healthier landscape. Meanwhile, the impact of higher temperatures and drought worsens.

"The underlying pace of climate change is accelerating," Westerling said. "The only way the (wildfire) situation becomes stable in the future is if we stabilize the climate system and give the ecosystem a chance to catch up."

This year's fire season comes amid a foreboding backdrop of three dry years.

While the past winter began with a series of big, promising storms, the spigot shut off in January, February and March, when California historically receives the bulk of its rain and snow. Through May, much of the state remained in record territory for driest



Stephen Lam / The Chronicle

A firefighter with the Stanislaus Hotshots monitors flames on a hillside while defending a home during the Dixie Fire.

year.

As a result, the landscape is unseasonably ripe for burning.

Craig Clements, a professor of meteorology at San Jose State University and climate science director of the school's Wildfire Interdisciplinary Research Center, says vegetation moisture levels in June in many areas were more typical of those in midsummer.

"We've been two months ahead this whole season really, which is scary," Clements said.

The National Interagency Fire Center, a consortium of fire agencies from across the country, forecasts high fire potential for almost all of Northern California from June into fall. For parts of Southern California, high fire potential is projected from August into fall. The peril is largely the upshot of drought.

"The message for people to take home is that these fire seasons that seem so extreme are no longer exceptional things. They can happen any time."

LeRoy Westerling, UC Merced climate scientist

Of course, for fire to materialize, it takes a spark.

The record 2020 fire season got a boost from barrages of lightning that started such giants as the SCU, LNU and CZU complex fires in and around the Bay Area. Such stormy weather is hard to predict far in advance. So are heat and wind, which can quickly turn any small fire into a monster.

But for most wildfires, upward of 90%, the cause is humans. The electric grid of Pacific Gas and Electric Co. has recently been a significant source of

ignition. Last year, the company was blamed for the Dixie Fire in Butte, Plumas, Lassen, Shasta, and Tehama counties after a tree fell onto a distribution line.

"People need to be really careful this year," Clements said. "A lot of this can be prevented. No ignition, no fire."

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PLANNING



Yalonda M. James / The Chronicle 2021

An orange sun sets in a hazy sky near the Bay Bridge last August in Alameda as smoke from Northern California wildfires drifted into the region.

PurpleAir vs. AirNow: How to track air quality readings near you

By Kellie Hwang

Hunting for air quality readings has become a familiar drill for Bay Area residents as smoke pollutes the region's skies during Northern California's increasingly severe wildfire seasons.

Those looking for current conditions and longer-range forecasts have several good resources to consult: the federal AirNow.gov website; the Bay Area Air Quality Management District, which is one of AirNow's local part-

ners; and PurpleAir, a website that pulls its data from sensors that people purchase and install on their own.

Because their readings are gathered from different sources using different methods, their numbers typically differ. However, all of them use the Air Quality Index, the Environmental Protection Agency's color-coded scale for reporting air quality. Levels range from 0 to 500 — the higher the AQI reading, the greater the pollution level and associated health

risk.

Here's what you need to know about the different resources, how to use them and what they can tell you about air quality in your area.

AirNow

AirNow.gov is a federal website managed by the EPA with many federal and local state partners, including in the Bay Area. Users can enter a specific location to pull up AQI data and a five-day air quality forecast. It's

the most accurate information available, using regulator-approved air quality monitors — but sampling, analysis and quality-control steps create a lag, meaning the reported measurements are few hours old.

The agency's Fire and Smoke Map, fire.airnow.gov, shows pollution levels from wildfire smoke, known as fine particle pollution or PM2.5. It combines data from AirNow and PurpleAir and applies some mathematical adjustments. The map in-

cludes layers that can be turned on and off to show the different types of sensors, large wildfire incidents and smoke plumes.

Bay Area Air Quality Management District

The BAAQMD, baaqmd.gov, is a local partner of AirNow. About 30 air district stations around the Bay Area measure two types of pollution — PM2.5 and ozone — by pulling them through a filter and weighing them to

Air continues on S7

PLANNING

Have emergency kits packed and ready

Packaged kits are available from retailers. If you assemble your own, here's the minimum it should contain, according to the Red Cross. For the car, much of the gear is best placed tightly into a backpack to save space.



Carlos Avila Gonzalez / The Chronicle 2017

For the car

- » Water: A three-day supply amounting to 1 gallon per person per day.
- » Food: A three-day supply, about 1,000 calories — something lightweight like energy bars
- » Water purification tablets, or a water filter in case you go beyond three days and need to find alternate sources of water.
- » Portable radio
- » Flashlight and/or light stick
- » Charger for cell phones and devices, powered by batteries, along with a cell phone charger cord for the car
- » Batteries
- » Blankets: Emergency survival types are compact and light
- » Tube tent

- » Sanitation and personal hygiene supplies, including toilet paper
- » Leatherman-style multitool or pocketknife with can opener, screwdriver heads and knife blade
- » Poncho or other rain gear
- » Candles
- » Waterproof matches
- » 50 feet of rope (3/16 or bigger)
- » Duct tape
- » Work gloves
- » First-aid kit
- » Sewing kit
- » Whistle
- » Smoke/dust mask
- » Gas meter valve shut-off wrench
- » Instant hand warmers

For the home

All the previous items, plus:

- » Medications, at least a seven-day supply
- » Cash: Small bills and coins
- » Tools: Foldable shovel, hatchet, screwdriver, pliers, pocketknife and can opener
- » Extra clothes
- » Battery-powered lamp
- » Plastic sheeting (for emergency shelter)
- » Paper or plastic plates, bowls and cutlery
- » Small cooking pot
- » Soap and bath towels
- » Copies of personal documents
- » Emergency contact list
- » Maps of the area

Other items to consider

- » Additional medical supplies (hearing aids, glasses, contacts, syringes, etc.)
- » Baby supplies
- » Games and toys (for children)
- » Pet supplies
- » Two-way radios
- » Extra car and house keys
- » Scissors
- » Sleeping bags

— Chronicle staff report

Keep an emergency kit at home for each person in your household and another in your car with a first aid kit, radio, water, food, blanket, etc.

How to check quality of the air near you

Air from page S5

determine air quality. The agency's Air Quality Index shows hourly, daily, weekly and monthly PM2.5 readings for different areas across the Bay Area.

The district also is responsible for issuing air quality advisories and Spare the Air alerts. Advisories indicate that events such as wildfires are affecting local air quality, but not at levels exceeding federal health-based standards. Spare the Air alerts are issued when pollutants like PM2.5 are expected to push the Air Quality Index to the unhealthy level, above 100, in any one of five reporting zones in the Bay Area. Users can sign up for alerts via text, email, phone or website notification.

PurpleAir

PurpleAir, purpleair.com, manufactures low-cost air quality sensors — ranging from about \$200 to \$300 — that anyone can purchase and install outside their home. The sensors use light scattering technology to estimate particle concentrations

in the air. According to PurpleAir, about 18,000 of its sensors are in use across the U.S., with 11,000 in California, and the numbers have roughly doubled each year since the Utah company was founded in 2015.

The data refreshes every 10 minutes and appears on a map on the company website. You can search by address or sensor location, zoom in and out or use a drag function to see other areas. With far more sensors than the government's network, it's useful for getting a real-time sense of the air quality in a specific neighborhood. However, compared to the federal data, it is lower quality. Also, because of the sensors' cost, they tend to be concentrated in more affluent neighborhoods.

PurpleAir's website says its sensors may appear to "read high" in wildfire smoke conditions because the density of smoke particles differs from that of other airborne particles of similar size, affecting its calculations of particle concentration. However, according to PurpleAir, sensors on its real-time map



Stephen Lam / The Chronicle 2021

Cattle graze under a smoky sky during the Dixie Fire in Westwood (Lassen County) in August.

now display with a conversion factor for wildfire and wood smoke conditions developed by the Environmental Protection Agency, so that the readings align more closely with regulatory-grade monitors. Experts say that those looking for absolute values should check them

against government agency data.

The Chronicle's Air Quality Map

The San Francisco Chronicle's map, sfchronicle.com/projects/california-air-quality-map, shows readings down to the neighborhood,

and is powered by PurpleAir data. It also features functions to show the smoke forecast and wind conditions.

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Gabrielle Lurie / The Chronicle 2020

Karen Stickler and her dog, Maxine, take refuge at the Red Cross shelter at the Ulatis Cultural Center after escaping the LNU Lightning Complex Fire in Vacaville in August 2020.

Make sure your pets are safe and provided for

» All pets should be identified with tags and, preferably, microchips.

» In an emergency, dogs tend to bolt and cats tend to hide. Be prepared for unusual behavior. If your dog behaves erratically when Fourth of July fireworks go off, expect much more of the same during a quake or fire.

» Keep on hand a pet first aid

kit, with disinfectant, bandages, tweezers and antibiotic ointment.

» Store a week's worth of pet food, and periodically check its expiration date. Canned food will keep longer than dry. Make sure to have plenty of extra water, more than you think you'll need. Pets (and people) drink more when under stress.

» Have bowls, leash, can opener, medicine, pet toys and plenty of cat litter, plastic bags or other cleanup gear ready to use.

» Train your pets to ride in a car, perhaps in a pet carrier. Remember, if you must evacuate your home, not all hotels and motels allow pets. Make a list of those near your area that do.

» Reassure your pet, calmly and often. It's good for both of you. Pets take their cues from their humans. If you're panicked, they will be, too.

— Chronicle staff report

PLANNING

Get financial, insurance documents in order

Chronicle staff report

Thousands of people who have lost homes in the California wildfires discovered too late that their insurance coverage had not kept up with the rising cost of lumber, labor and other rebuilding materials. Talk to your insurer to make sure you have enough coverage but, for a quick reality check, ask a local contractor how much it costs to build per square foot and multiply that by your home's size.

One of the most painful post-disaster tasks is compiling an inventory of possessions so you can seek reimbursement for the contents coverage. It's far easier to put the list together beforehand.

Here are other tips for shoring up your finances:

Safeguard your documents: Keep a copy of your will, trust, birth and marriage certificates, Social Security cards, insurance papers, medical information, most recent tax return, receipts for high-ticket items and other important documents in a safe deposit box. You can also scan and save them to a DVD or flash drive, which you can give to a trusted friend or family member outside the region. Another option is to save them in the cloud.

Break out the camera: Your insurance will pay for everything you lost — up to your policy limits — as a result of a covered “peril,” such as fire or windstorm. To get reimbursed for your personal belongings, most companies require a detailed inventory of every item lost, although some will advance a portion of your contents coverage without this list.



Michael Short / Special to The Chronicle 2019

Mary Ann Bainbridge-Krause gets help unloading belongings from her neighbor Evan Hailey, 13, as she returns to her home after the Kincade Fire in Windsor in October 2019.

While your house is still standing, use an online inventory or app or print a blank one from the California Department of Insurance or consumer group United Policyholders. Store it away from your home or better yet, in the cloud. At the very least, take photos or videos of everything in your home and outbuildings, including the inside of drawers, cabinets and closets.

Know your coverage: Most policies will pay for losses from fire, smoke, wind, hail, water (excluding floods), vandalism and theft. They do not cover losses caused by earthquakes and floods. Those require separate pol-

icies.

Make sure you have replacement-cost coverage. This will pay to replace your building and contents — up to your policy limits — with new ones of similar kind and quality. Avoid actual cash value policies, which pay only the depreciated value of what you lost.

It's good to have extended replacement-cost coverage, which will pay a certain amount — 20 percent or more depending on the insurer — above your policy limits. This can help pay for the surge in local building costs that often follows a widespread disaster. Also opt for building code up-

grades, which will pay an amount over your policy limit to comply with new code requirements. A guaranteed replacement-cost policy will pay to replace your house no matter the cost, but these are not common and very expensive.

In response to wildfires, more insurers have refused to write or renew policies in high-risk areas. Recent legislation has clamped down on non-renewals in and around disaster areas in California. For homes with a total loss due to a declared disaster, these insurers must offer to renew the policy for at least the next two annual renewal periods or 24

months, whichever is greater. It also requires an insurer to extend additional living expense coverage for up to 12 additional months, for a total of 36 months, if people encounter delays in the reconstruction process that are beyond their control.

For homes that are not damaged or destroyed in a disaster, but are located in a ZIP code within or adjacent to a fire disaster, an insurer cannot cancel or refuse to renew a residential property insurance policy for one year after the declaration of a state of emergency. CalFire determines the fire perimeter, and the insurance commissioner announces which ZIP codes are included.

Homeowners who can't get covered by a mainstream insurer may need to seek coverage from a “non-admitted” carrier, such as those affiliated with Lloyd's of London. Also called surplus lines, these insurers are far less regulated than admitted carriers and do not participate in the California Insurance Guarantee Association, which pays claims if an admitted carrier fails.

If you can't get insurance elsewhere, contact the California Fair Plan, which provides insurance for the home or contents from fire or lightning, internal explosion and smoke. For an additional premium, you can add extended coverage (for windstorm, hail, explosions, riots, aircraft, vehicles and volcanic eruptions as well as vandalism/mischief). You can purchase a Fair Plan policy from a licensed agent or broker or contact the plan directly at 800-339-4099. This year the Fair Plan increased its maximum coverage limit to \$3 million from \$1.5 million per home.

FREE APPS

FEMA Mobile: The federal disaster relief agency's official app will allow you to set weather alerts from the National Weather Service for up to five locations within the United States, which provide information about wildfire risks, dangerous storms and heat waves. You can also share emergency alerts, prepare a disaster checklist and learn preparedness tips. The app is also available in Spanish.

American Red Cross: The nonprofit provides a number of free emergency alert apps for download, including an all-inclusive Emergency app and one specifically for earthquakes. Other apps also include one called First Aid, which provides information if you need to render first aid.

Zello: This app can turn your phone into a walkie-talkie, allowing you and anyone else with the app to communicate via short audio messages. It can be a helpful way to stay connected to others during an emergency, or to make quick contact with separated family members.

5-0 Radio Police Scanner: You can listen to live police scanners using this free app, including San Francisco's City Police Dispatch and San Francisco fire and emergency medical services. Police scanners can sometimes provide useful information during natural disasters.

COUNTY-SPECIFIC APPS

Alameda County: To enroll in the county's AC Alert system, download the Everbridge app and search for AC Alert. The system allows you to provide multiple methods of emergency contact and other useful information. You can also register for AC Alert at www.acalert.com.

Santa Clara County: The ReadySCC free mobile app helps you create an emergency preparedness kit and an emergency preparedness family plan, including important emergency contacts and links to resources and information.

PHONE AND EMAIL

You can register your phone and email address for location-specific alerts with local and federal government sources.

If you text "PREPARE" to 43362, your phone number will be signed up for FEMA text alerts and emergency preparedness tips.

Save the number 43362 in your contacts. If you text this number with the word "SHELTER" and your ZIP code, you can find open shelters.

Useful tech tools to help during a disaster

Power blackouts and poorly thought-out evacuation alert systems have left Californians without critical information during natural disasters in the past.

But there are some free apps for your phone, numbers to text, systems to register for and technology to buy that could ensure that you have the most accurate and up-to-date information when disaster strikes, even during a power blackout.

To best ensure you get critical information when you most need it, it's best to choose a diverse range of disaster preparedness technology options in case any one particular solution fails. The Federal Emergency Management Agency also reminds people that mobile networks can become overwhelmed in a crisis, and it is often easier to receive information via text than over a phone call or on an app during those times.

All of these apps are available for iOS in the Apple App Store or Android in the Google Play store unless otherwise indicated.



Lea Suzuki / The Chronicle 2020

Citizen journalist Sarah Stierch checks an alert on her cell phone as she monitors scanners in Sonoma. Having safety apps downloaded can help chances of survival in an emergency.

COUNTY-SPECIFIC ALERTS

For most Bay Area counties, you can sign up for local government and public safety alerts, including emergency warnings, via Nixle by texting your ZIP code to 888-777. You can also fill out an online registration form to receive alerts via phone or email for some Bay Area counties. Search your local county government website for information on signing up in Marin, San Mateo, Santa Clara, Sonoma and Solano counties.

TWITTER

You can also receive useful information from emergency alerts shared on county and other government Twitter accounts.

San Francisco: @SF_Emergency

Contra Costa: @ContraCostaFire, @CCCCounty and @CoCoCWS

Marin: @AlertMarin, @MarinSheriff and @MarinCountyFire

Alameda: @AlamedaCoAlert, @AlamedaCoFire and @AlamedaCoSheriffs

Napa: @napacountyfire, @napasheriff and @CountyofNapa

San Mateo: @sanmateoco, @SMCSheriff and @SanMateoPD

Santa Clara: @sccfiredept, @SCCGov and @SCC_OES

Solano: @SolanoFire, @SolanoSheriff and @SolanoCountyEMS

Sonoma: @CountyofSonoma and @SonomaSheriff

Cal Fire: @CAL_FIRE

WIRELESS EMERGENCY ALERTS

Federal agencies like the National Weather Service and local governments use a system called Wireless Emergency Alerts to communicate with most cell phones. The alerts are usually accompanied by a sound and vibration pattern so that users can identify their importance.

But in areas with poor or no cell phone service, the alerts may be critically delayed or not arrive. Some people have reported that they did not receive essential emergency alerts when they were supposed to. Other apps and messaging systems that rely on Wi-Fi and data plans may help fill in the gaps left by the wireless emergency alert system.

The federal Emergency Alert System is a separate system that uses broadcasters and satellite providers to broadcast emergency warnings to television and radio. If you cannot access cell service or the internet, turning on a radio or television during an emergency may help you get the critical information you need.

Both the WEA and the EAS are part of the Integrated Public Alert and Warning System, which also uses digital road signs and sirens as alternative alerting mechanisms.

KEY HARDWARE

FEMA and the California Governor's Office of Emergency Services recommend that families have an emergency charging option for cell phones in the case of a power failure. Be sure to keep at least one backup portable charger in your emergency preparedness kit.

Most state and local emergency preparedness lists recommend finding a battery-powered or hand-crank radio so that you can get information if you cannot access the internet or any cell-based technologies. Some lists also recommend extra batteries and a portable drive or cloud-based storage with scans of important documents, like insurance information.

If cell and internet networks are knocked out during a natural disaster, satellite phones can be an option to stay in touch because they rely on a network of satellites unaffected by natural disasters.

Though expensive, there are a few satellite phones commonly recommended for emergency use, including the Inmarsat IsatPhone 2 and the Iridium 9555. Some retailers have offered the Inmarsat for free alongside a yearly plan, and it may be worth exploring if you're willing to spend \$50 to \$100 a year to keep a satellite phone active for emergencies.

PLANNING



Jessica Christian / The Chronicle 2021

Vicenta Ramirez (left) and Martha Questa clean up after a tree was that cut down at Smith-Madrone Vineyards in St. Helena in 2021.

Take steps to protect your property

Create a defensible zone: You don't have to strip everything down to dirt, but minimizing fuel danger is the goal. (See graphic for details.)

Avoid flammable plants: Bamboo and oily eucalyptus can light like a match head. Opt instead for high-moisture succulents such as aloe or fire-resistant hardwood trees such as maple.

Consider the weather: Don't operate any power tools to trim vegetation when the weather is hot and windy because sparks can light the yard in a twinkling.

Inspect power lines: Notify Pacific Gas & Electric Co. whenever you notice power lines brushing up against tree limbs, or close enough for a strong wind to slap them together. Its crews can come trim the trees. Several big fires, including 2018's Camp Fire in Butte County, were sparked by power lines hitting vegetation or other power lines.

Assess roofing materials: Roofs should be made of flame-retardant

materials, such as metal, asphalt composition shingles or clay tiles. Make the overhangs as wide as possible — in the Wine Country fires, some homes fared better with flying embers when they had fire-resistant overhangs of 4 feet or more to keep them from hitting the walls.

Locate the gas valve: Know where your gas shut-off valve is, and keep a wrench next to it. If you see a wildfire getting dangerously close, shut off the gas — and any propane tanks you might have around.

Have a wildfire plan: In just two minutes, a house fire can become deadly, according to the Department of Homeland Security. In five minutes, a house can become fully engulfed in flames. Plan for the worst.

Understand your risk: Cal Fire maintains maps of areas prone to wildfire, and cities and counties are required to keep safety plans that contain procedures for evacuations and communications.

— Chronicle staff report

How to create a defensible zone

A defensible space is a buffer zone around the buildings on your property that can increase the chances of your home surviving a wildfire. The space is necessary to slow or stop the spread of wildfire, and it helps prevent your home from catching fire. It also protects the firefighters who may have to defend your home. For more information on how to prepare your home and yard against wildfires, go to the Cal Fire website www.readyforwildfire.org.

1 Roof

The most vulnerable part of your home, it should be made of flame-retardant materials. Homes with wood or shingle roofs are at higher risk of being destroyed in a wildfire.

2 Chimney

Cover it with a non-combustible screen.

3 Garage

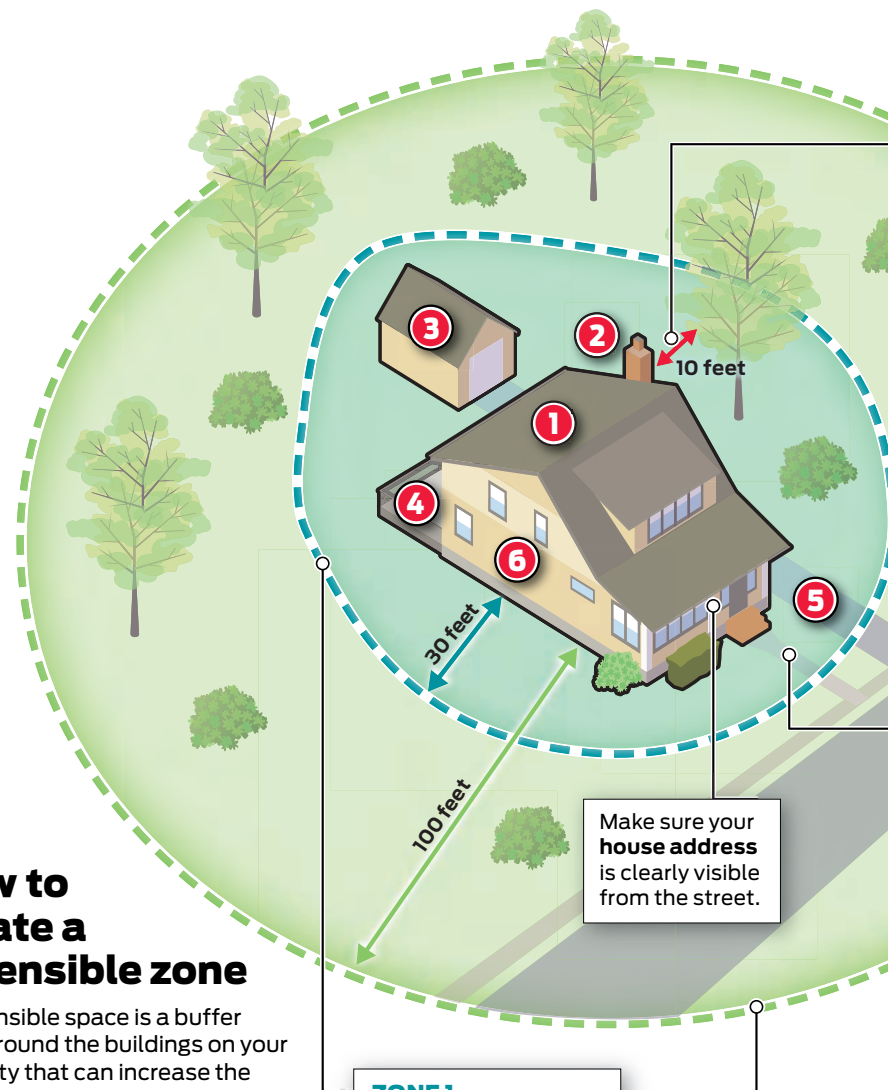
Have a fire extinguisher and tools such as a shovel, rake, bucket and hoe available for fire emergencies. Store combustible and flammable liquids away from ignition sources.

4 Deck

Surfaces within 10 feet of the building should be built with ignition-resistant or noncombustible materials. Remove combustible items from underneath your deck.

5 Driveway

Driveways should be built according to state and local codes to allow emergency vehicles to reach your home. Trim trees and shrubs overhanging the road to allow vehicles to pass.



ZONE 1

Clear dead leaves and plants from within **30 feet** of the home. Trim tree limbs to at least 6 feet above the ground. Clear all dead limbs, leaves and other vegetation from the roof and rain gutters.

Sources: California Department of Forestry and Fire Protection, Getty Images

What you should do if you get trapped

Here are Cal Fire's recommended courses of action if you become trapped and can't make your way to safety.

In your car

- » Stay calm.
- » Park your vehicle in an area with little vegetation.
- » Close all of your vehicle's windows and vents.
- » Cover yourself with a wool or cotton blanket or jacket.
- » Lie on the vehicle floor.
- » Call 911 and advise rescue personnel of your location.

On foot

- » Stay calm.
- » Find an area clear of vegetation — a ditch or depression in level ground if possible.
- » Lie face down and cover your body.
- » Call 911 and advise rescue personnel of your location.



Gabrielle Lurie / The Chronicle

An incinerated car is abandoned along Pearson Road in Paradise after the Camp Fire ravaged the town in November 2018.

In your home

- » Stay calm and keep your family together.
- » Call 911 and advise rescue personnel of your location.
- » Fill sinks and tubs with cold water.

- » Keep doors and windows closed but unlocked.
- » Stay inside the house.
- » Step away from outside walls and windows.

Source: Cal Fire

Keep **tree branches** 10 feet away from your chimney and other trees. Remove any dead branches hanging over your roof.



Create **fire-safe zones** using stone walls, patios, decks and roadways. Use rock, mulch, flowerbeds and gardens as ground cover for bare space and as effective firebreaks.

ZONE 2

In the area within **100 feet** from the home, cut grass to a maximum height of 4 inches. Allow ample space between trees and shrubs so flames won't jump easily between them. Consult a landscape specialist to learn how wide that space should be — it varies from yard to yard.

6 Windows

Heat from a wildfire can break windows even before the house ignites. This allows burning embers to enter and start fires inside. Single-pane and large windows are particularly vulnerable. Install dual-pane windows with one pane of tempered glass to reduce the chance of breakage in a fire. Consider limiting the size and number of windows that face large areas of vegetation.



Sara Gobets / Special to The Chronicle 2020

CERT volunteer Kay Blackwolf helps Danny Evans load free water into his car at the San Lorenzo Valley Water District building in Boulder Creek in 2020.

More information

The Citizen Corps: On Twitter @citizen_corps

Community Emergency Response Teams: Online at www.ready.gov/community-emergency-response-team. In San Francisco: <http://sf-fire.org/neighborhood-emergency-response-team-nert>

How to help neighbors after a disaster

When disaster strikes, trained volunteers can make a big difference in helping communities respond. Two options to participate in these types of volunteer networks are:

The Citizen Corps: The organization brings together local government, business and community leaders to prepare for a disaster.

Community Emergency Response Teams: CERT offers training for individuals to respond to fires, earthquakes or other disasters. More than 6,000 individuals participate in their communities. In San Francisco, the Fire Department organizes the free trainings for the city's Neighborhood Emergency Response Team, or NERT.

— Chronicle staff report

PLANNING



Stephen Lam / The Chronicle 2021

Chester resident Regina Rutledge, evacuated due to the Dixie Fire in 2021, went to a shelter in Lassen Community College in Susanville with dogs Sally Sue and Alligator.

Have a plan and practice

The majority of fire deaths — about 85% — happen in homes. Yet just 1 in 5 families has practiced getting out of their home in the event of a fire. Do you know how you'd escape from each room if a fire breaks out? If the answer is no, it's time to make a plan and practice.

- » Walk through your home and identify exits and escape routes, making sure doors and windows can be easily opened.
- » Install alarms in every room where someone sleeps.
- » Keep hallways and stairs free of clutter.
- » Choose a meeting place outside — say the nearest stop sign or light post.
- » Assign someone to get the pets.
- » Practice escape routes twice a year, making the drill as realistic as possible, according to the Red Cross. The idea is to practice, not scare children, so it doesn't need to be a surprise drill. Drills should include making sure children know not to go back for toys, not to hide and not to go near the fire.
- » Teach children to “get low and go.” Have them practice escaping each room by crawling along

the perimeter to an exit and to “stop, drop and roll” if their clothing catches fire.

» If children are fearful about fire or fire drills at school or home make them anxious, try visiting a fire station or turning the drills into games, perhaps “Simon says, ‘Get low and go.’ ”

» For those in multistory homes or buildings, practice setting up and using escape ladders from a first-floor window.

» Not everyone may be able to get out, so family members should be taught how to insulate themselves in a room by closing doors and using towels or duct tape to seal cracks. Those who are stranded should wave a flashlight or light-colored clothing at the window so firefighters know where they are.

» Turn on emergency alert notifications on your cell phones. This will allow you to get alerts when a vegetation or other kind of fire becomes a threat. Also, sign up for your county's emergency alert system if applicable.

— Chronicle staff report

What to do before you evacuate

When an evacuation is anticipated, follow these checklists — if time allows — to give your home the best chance of surviving a wildfire:

OUTSIDE

- 1 Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- 2 Check on neighbors and make sure they are preparing to leave.
- 3 Move propane barbecue appliances away from structures. Turn off propane tanks.
- 4 Gather up flammable items (patio furniture, toys, doormats, trash cans, etc.) from outside the house and bring them inside or place them in your pool.
- 5 Seal attic and ground vents with precut plywood or commercial seals.
- 6 Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.
- 7 Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around your house.

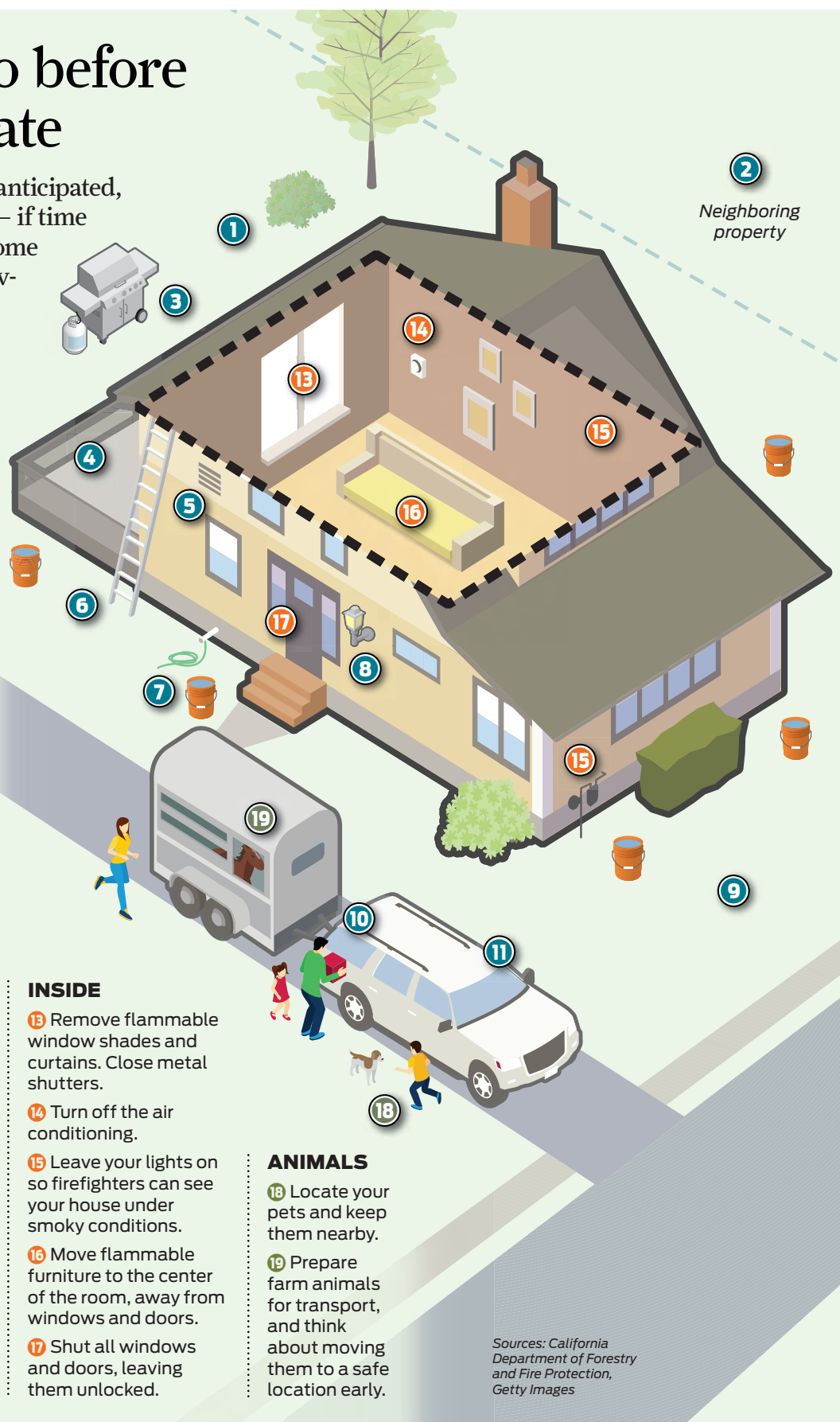
- 8 Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- 9 Don't leave sprinklers on or water running; they can affect critical water pressure.
- 10 Make sure emergency supply kit is in your vehicle.
- 11 Back your car into the driveway, for quick getaway, with vehicle loaded and all doors and windows closed. Carry your car keys with you.

INSIDE

- 13 Remove flammable window shades and curtains. Close metal shutters.
- 14 Turn off the air conditioning.
- 15 Leave your lights on so firefighters can see your house under smoky conditions.
- 16 Move flammable furniture to the center of the room, away from windows and doors.
- 17 Shut all windows and doors, leaving them unlocked.

ANIMALS

- 18 Locate your pets and keep them nearby.
- 19 Prepare farm animals for transport, and think about moving them to a safe location early.



Sources: California Department of Forestry and Fire Protection, Getty Images

In the first critical minutes

In the event of a fire

- » Flee the minute calamity becomes imminent, and certainly if you are told to evacuate.
- » Take your disaster kit — and important documents — with you.
- » Back your car into an open space to load it, leaving it pointed in the direction you plan to head. While you load up, leave the car's doors unlocked and the key in the ignition.
- » If the fire has hit your house before you've had time to escape, check the temperature of any doorknob you need to use before you open it. A hot knob means the flames are close on the other side of the door. Pick another exit.
- » If you have to flee through a room on fire, crawl so you will be below the smoke level.
- » Throw on a heavy coat to protect against burning embers.

If you have time and winds aren't high

- » Wet down the roof of your house with a garden hose. But emergency officials say don't try to be a hero. They don't want to waste valuable time they could use to fight the fire to rescue you.
- » To reduce or slow the spread of fire, move combustible patio furniture inside, or at least to the other side of the house from where the fire is approaching. Flaming embers will have less to ignite.

— Chronicle staff report

RECOVERY

What to expect after surviving a disaster

Surviving a wildfire is just the first step. An important one, yes — but the challenges are rarely over right away. You will need to push on for the next several hours, days or even weeks.

► If your house is livable, stay in it even if the utilities are out because shelters might become overcrowded — which can become even more of a concern during a coronavirus outbreak. This is where your survival kit will prove its worth, for food, water, first aid and the rest. Be prepared to go it alone for as long as three days.

► You may have turned off your gas, but if you smell or suspect a leak, don't light a match or a candle or flip any light switch, which can cause a spark, until you're sure the gas danger is over.

► Never touch a downed power line.

► If you are ordered to evacuate, you may be directed to an evacuation point, not a traditional shelter.

► If you rent or decide not to replace your house, prepare to make relocation arrangements — signing a new lease, getting new furniture or other belongings, applying for insurance payments or governmental emergency assistance. If you are moving back into an apartment that was only damaged, the landlord is responsible for making your unit fit to live in again — but not for the loss of your personal property.

► Take care of yourself. Consider counseling, stay healthy through exercise and good diet, stay current with your friends — in other words, recognize that you've gone through an emotional wringer, and let yourself process the grief. Remember: To some extent, you will be rebuilding your life, and that comes one slow step at a time. For more tips on how to recover from the American Psychological Association, go to www.apa.org/help-center/residential-fire.aspx.

— Chronicle staff report



Brontë Wittpenn / The Chronicle 2021

Caitlin Giannini and her fiancé, Josh Freis, dig through the remains of their home in Grizzly Flats (El Dorado County), destroyed by the Caldor Fire in 2021.

Tips for tracking down missing loved ones

Even with the best-laid plans, family members might be unable to meet at prearranged points. Cell phones with contact information might be left behind in the rush to escape danger. Here are some tips for locating loved ones:

► Parents should ask child care providers or schools what their policy is for when a catastrophic disaster hits and

whom they'll need to call if children need to be moved.

► Persistence matters. There may be several roadblocks before one contact method pans out.

► Try calling the people you're searching for during off-peak hours, when the working lines are less clogged.

► Try texting if calls aren't going through.

► Check social media — Face-

book, Twitter, Instagram — to see if they are online.

► Email. Even if a phone is gone, those who are missing might still be able to log on to a computer.

► Call people whom missing loved ones are close to who may know where they are.

► Check in with their neighbors, employer, school or church — anywhere they usually hang out or spend time.

► For those in distant locations, try sending a snail-mail letter that has a good chance of getting forwarded if the missing person has relocated.

— Staff report

Keeping yourself up to date

No power, no Internet? A battery-powered radio may be your best way to get information on what's going on.

Tune in to AM radio. In the Bay Area, KGO 810 and KCBS 740 carry regular news updates, and each is set up to run emergency information broadcasts from local authorities.

Listen for a warning siren. The city of San Francisco, for example, will blast its sirens during a major disaster, which is a cue to listen

to an emergency radio broadcast. (The sirens are tested at noon every Tuesday.)

Consider buying an emergency radio. The radio includes channels that regular AM-FM radios don't get, including essential weather and disaster broadcasts from the National Oceanic and Atmospheric Administration.

To find your local NOAA station, go to https://www.weather.gov/nwr/station_listing.

— Chronicle staff report

Where to turn for financial assistance



Brontë Wittpenn / The Chronicle 2021

Tony Bolen surveys the ruins of his home in Grizzly Flats in 2021, after he was allowed to return to his property.

Chronicle staff report

After a major disaster, you may qualify for tax relief, unemployment insurance, federal grants and low-interest loans, but it helps to act quickly. Here's where to turn:

File a claim: Contact your insurance agent as soon as possible to start a claim. If you have to move out of your house, most policies will pay for living expenses up to a certain amount of money and time. You can usually get an advance to cover temporary housing, food and other immediate needs. Some firms will give a percentage of your content coverage before you submit an inventory. If you believe your insurance company is not treating you fairly, file a complaint with the California Department of Insurance and consider hiring a public adjuster to represent you. If the treatment is egre-

gious, consider hiring an attorney.

Federal assistance: You could be eligible for individual assistance from the Federal Emergency Management Agency if your loss is part of a federally declared disaster. FEMA can provide grants and low-interest loans to cover uninsured losses, up to certain limits. For more information: fema.gov/individual-disaster-assistance

Mortgage relief: If you have a mortgage, contact your loan servicer. You can usually get at least a 90-day moratorium on payments and temporary relief from foreclosure activity.

Tax relief: If your home is damaged or destroyed, you may be eligible for property tax relief. File a claim with your county assessor's office within 12 months. The assessor can reappraise the property in its current condition

and potentially refund some taxes. When you rebuild, the value of your property before it was damaged will be restored. Also check with the IRS and California Franchise Tax Board to see if they have extended tax-filing deadlines for disaster victims.

If your loss was caused by a federally declared disaster, you may be eligible to deduct casualty losses that exceed 10 percent of your adjusted gross income on your federal return, if you itemize deductions.

Unemployment benefits: If you lose your job as a direct result of a federally declared disaster and are not eligible for regular state unemployment benefits, you could qualify for up to six months of unemployment benefits from a federally funded program called Disaster Unemployment Assistance. For more information: bit.ly/2A73NCO.

Useful web sites

Understand your risk. Cal Fire maintains maps of areas prone to wildfire, and cities and counties are required to keep safety plans that contain procedures for evacuations and communications.

- » www.readyforwildfire.org/Prepare-Your-Family
- » www.readyforwildfire.org/Defensible-Space
- » www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/fire
- » <http://sparkyschoolhouse.org>
- » www.californiafirefacts.org

Survival kits

- » www.sf72.org/supplies
- » www.ready.gov/build-a-kit
- » FEMA emergency kit supply checklist: [http://bit.ly/2LYtJxJ](https://bit.ly/2LYtJxJ)

Family resources

- » Sesame Street Emergency Preparedness Toolkit: www.sesamestreet.org/toolkits/ready

Pet safety

- » www.asPCA.org/pet-care/general-pet-care/disaster-preparedness

During and after a wildfire

- » www.readyforwildfire.org/Evacuation-Steps
- » <http://anrcatalog.ucanr.edu/pdf/8386.pdf>
- » www.usfa.fema.gov/downloads/pdf/publications/fa_46.pdf
- » www.apa.org/helpcenter/residential-fire.aspx

Regrouping

- » Check in as safe and well with the Red Cross: <https://redcross.org/safewell>
- » Family finder phone apps: www.life360.com/family-locator

RECOVERY

Disaster checklist: What to do before and after

Before

- ☐ Download this guide as a PDF (sfchronicle.com/survival).
- ☐ Download apps that will be useful during an emergency.
- ☐ Compile a list of where to get emergency information, including radio stations, social networks, websites and public safety alerts.
- ☐ Keep the list in your car and in your home.
- ☐ Microchip your pets.
- ☐ Take photos of your belongings.
- ☐ Review and update your insurance coverage.
- ☐ Make copies of your important documents and store them in a safe place or on the cloud.
- ☐ Replace the batteries in your smoke detectors at least twice a year.
- ☐ Replace your smoke detectors at least once every 10 years.
- ☐ Check your fire extinguishers and make sure they and other firefighting tools are easily accessible.
- ☐ Pack emergency survival kits for your home and car — don't forget items for your pets.
- ☐ Plan and practice family escape routes from your home and establish a meeting place.
- ☐ Assign family members' responsibilities during an emergency, such as contacting other family members, turning off the gas and gathering pets.
- ☐ Know where your gas shut-off valve is and have necessary tools easily accessible.
- ☐ Maintain a defensible zone around your home.
- ☐ Notify PG&E if you notice unsafe power lines.
- ☐ Identify combustible building materials and replace them if possible.
- ☐ Consider buying alternate power and communication devices.

After

- ☐ Seek federal assistance, mortgage relief, tax relief and unemployment benefits.
- ☐ Contact your insurance provider and start a claim as soon as possible.
- ☐ Consider counseling as you rebuild your life.
- ☐ Reach out to family — for your sake and theirs.