

<u>Can California avoid a third year of fire</u> <u>catastrophe? Here's what's been fixed — and</u> <u>what hasn't</u>

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All signs point to another busy fire year in California.

Already, a heat wave this month triggered hundreds of wildfires. They were mostly small burns, but they thrived off a healthy crop of brush nourished by the wet winter. As the state's hills and valleys continue to dry out, that vegetation may pose bigger problems.

State and federal leaders are working to reduce the threat, but they face a number of long-standing challenges: overgrown forests that haven't been cleared of undergrowth, sprawling development in high-risk areas, an electric grid prone to throwing deadly sparks and a warming climate.

The last two fire seasons, the worst ever in California, offered a tragic taste of these mounting problems. More than 135 people died in wildfires in 2017 and 2018, while tens of thousands of houses and businesses were destroyed. November's Camp Fire in Butte County alone killed 85 and wiped out 14,000 homes.

The Chronicle continues to track what firefighters, emergency responders, policymakers and utilities are doing to reverse the alarming trend of increasing wildfire. Here is a look at what is changing — and what is not

Forest management

The White House and California found rare common ground last year, agreeing that the state's forests are in bad shape and all too ripe for burning. Now the federal and state governments are taking big steps to improve conditions, though there's a long way to go.

The dense stands of trees and brush that have fueled many of the state's recent mega-fires are the result of decades of fire suppression, which have resulted in a dangerous buildup of vegetation. Drought and bug infestation have added to the combustibility of this overgrown tinder.



The U.S. Forest Service and the state's Cal Fire agency are working to reduce the unhealthy growth. They're thinning trees, clearing brush and setting controlled burns on more acres than they have in years. Gov. Gavin Newsom this spring expedited such projects by exempting them from state environmental review, while the Forest Service recently announced a similar push to streamline federal regulations.

Still, the forestry work is a fraction of what needs to be done to seriously contain the fire risk, experts say.

"It's just not at the scale it needs to be at," said Don Hankins, a professor at Cal State Chico who studies forest restoration. "If you think about how many acres we have to manage and the terrain we have to work with, it's almost impossible on a landscape scale to get in there and do this."

State officials estimate that about 15 million acres of wildlands need "restoration." The Forest Service plans to treat about 220,000 acres in the budget year ending in October while Cal Fire plans to treat about 45,000 acres in the budget year that ends this month.

The progress is limited by the difficulty of the work, the cost, access to private property and disagreement about how it should be done.

President Trump last year proposed "raking" California's overgrown forests as part of an aggressive strategy of fuel reduction. Critics worried the tactics amounted to widespread logging and advocated a more surgical approach to forest thinning. They also said the president should address global warming, which has made the landscape more vulnerable to fire. Trump calls global warming a hoax.

Newsom, while acknowledging the obstacles to effective forest management, is pushing a plan by Cal Fire for 35 major brush- and tree-clearing projects.

The initiative, which would cover about 90,000 acres, targets places where fire managers hope to make the biggest inroads on safety at the lowest cost. About a half dozen communities in the Bay Area and just beyond are included in the blitz. Among them are Woodside, Los Gatos, Orinda, Santa Cruz County and Big Sur.

"We're not going to solve the problem right away)," said Scott Stephens, a professor of fire science at UC Berkeley. "But there's hope of making a difference in the next two decades."

Power shutoffs

Anyone who gets electricity from Pacific Gas and Electric Co. could be affected this year if the utility intentionally turns off power lines to prevent them from starting a wildfire.

The shutoffs have already begun and will likely become more frequent. That's because PG&E expanded its planned power outage program after last year's Camp Fire, which was blamed on the company's



equipment.

PG&E recommends that residents make a personal safety plan, know how to attend to their medical needs when the grid is down and check the reliability of a backup generator, if they have one, among other preparatory steps.

For those who don't already have backup power, preparing for a shutoff can be costly.

Portable generators cost about \$1,000 and can fill some emergency needs. But they can't power an entire home unless a contractor installs equipment to insulate the residence from the rest of the grid during a shutoff, said Duncan Callaway, an associate professor of energy and resources at UC Berkeley. Rooftop solar panels can help, too — if paired with batteries that store the energy.

"We don't consume electricity exactly as the sun produces it, and so you need the storage, in addition, to be able to shift the production to times when you want to use it," Callaway said.

One storage option is Tesla's Powerwall battery, which costs \$6,700 before factoring in support equipment, installation, taxes and fees. Powerwalls have a feature called "Storm Watch" that maximizes backup power during signs of severe weather — including extreme fire danger warnings, according to CEO Elon Musk.

San Francisco solar company Sunrun sells a battery called Brightbox for less than \$10,000, including related equipment and installation costs. It also leases the solar-powered battery for \$35 to \$70 a month, depending on the size of the system and the financing plan chosen, with no down payment. A Brightbox can power four circuits in a customer's home for about 10 hours or more, until solar panels recharge the device.

Pending legislation from state Sen. Bill Dodd, D-Napa, could help secure backup power for residents who need electricity for medical reasons. Dodd's SB167, which passed the Senate, would authorize electric companies to provide financial help to such customers.

"The last thing we want to do is have a situation like that hurting people," Dodd said of power shutoffs. "This is all new to everybody."

Emergency alerts

Seeking to learn from past failures, emergency services workers across California are racing to adopt a cohesive emergency alert system before another barrage of flames wipes away people and homes. The California Office of Emergency Services issued guidelines in March for a statewide system to alert people in danger of being overrun by fire.

The guidelines encourage counties to spell out official responsibilities, define who responds to what situations, implement training and testing requirements, and set up Wireless Emergency Alerts, a



federally administered system that pings every cell phone in a potential disaster area.

Until now, California's emergency warning system has been a mishmash. Many counties adopted subscriber systems like Nixle, which sheriff's departments use to send emergency text alerts to local cell phones, while others haven't used any sort of text alert system.

Now, all but four of California's 58 counties have some kind of wireless alert or subscriber system in place, but fewer than half of the residents subscribe to an emergency notification service, according to county officials, the Governor's Office of Emergency Services and Cal Fire.

Nothing in the law can force a county to adopt the guidelines or prevent people from opting out of an alert system, but the state can withhold annual emergency services grants to noncompliant jurisdictions, which could cost some counties millions of dollars.

Time is of the essence, said state Sen. Mike McGuire, D-Healdsburg, who co-authored the legislation that led to the protocols.

"Every fire season is worse than the one before, which is why we are working with lightning speed to get these guidelines adopted," McGuire said. "We've come a long way, but we know there's more work ahead."

Experts believe the lack of a coordinated warning system contributed to the death toll during the 2017 Tubbs Fire, which destroyed parts of Santa Rosa and killed 24 people. McGuire said only 40 percent of Sonoma County residents in the path of the fire received alerts.

Only subscribers to a system called CodeRed received alerts during the Camp Fire, which destroyed the Butte County towns of Paradise and Magalia and killed 85 people last November.

Records reviewed by The Chronicle showed that only about 60 percent — from 15,000 to 25,000 alerts — were delivered either to a person or to an answering machine. The rest were met with busy signals, operator intercepts or the call timed out.

Firefighting preparation

With experts predicting more perilous conditions to come, Cal Fire is hiring more firefighters, deploying more equipment and spending more money on fire engines, helicopters, air tankers and fire-prevention programs than ever before.

The goal of the agency, which has a \$2.5 billion operating budget, is to prevent the kinds of catastrophic fires that have destroyed whole communities.

Cal Fire has spent more than two-thirds of the approximately \$800 million in its emergency firefighting fund for the current fiscal year and expects to spend at least that much in the next year. The only time fire suppression spending was higher was in 2017-18, when costs reached \$947.4 million, more than



double the amount that had been budgeted. Before 2015, emergency spending reached \$500 million only once, in 2007-08.

"There will be fires, but we need to work together to make sure they stay manageable," said Scott McLean, a spokesman for Cal Fire, which is responsible for fighting fires across 31 million acres of land that includes unincorporated areas, brushlands and forests. "The idea is to make the initial attack very effective and to keep fires at 10 acres or less."

McLean said the agency has hired 2,600 seasonal firefighters, about 60 more than last season. They will join the 6,100 permanent employees, who will handle operations and man 343 fire engines, including 13 brand new rigs, each with a three-man crew.

"We've been increasing our seasonal count by about 200 people a year for the past three years," McLean said. "Permanent staff has increased by a few hundred in that time."

Cal Fire is ready with 23 air tankers and 17 twin-engine spotter planes, he said. In August, the first of 12 new Blackhawk helicopters will be delivered. They can carry 1,000 gallons of water, more than twice as much as the agency's old Huey helicopters, which will be replaced over the next four years.

McLean said the department has hired 60 people to thin forests, clear brush and do prescribed burns in fuel-intensive areas near about 200 communities. The department hopes to hire 40 more people when the next fiscal year starts July 1. The 10-person thinning crews will be assisted by 110 National Guard troops, he said.

He said crews are spending the early part of the season educating property owners on the importance of cleaning roofs and gutters, trimming trees and removing brush within 100 feet of their homes. The U.S. Forest Service, which manages 57 percent of the 33 million acres of forest in California, budgeted \$1.6 billion for wildland fire suppression across the country in 2019. That's \$100 million more than in 2018.

About 5,000 federal firefighters — 900 of them seasonal hires — are employed in the Pacific Southwest region, which includes California, Hawaii and the Pacific Islands. There are 65 regular hand crews and 45 elite "hot shot" crews — each with 18 to 20 firefighters — and 19 helicopter crews based in California. California is also home base to 36 smoke jumpers, 18 bulldozers, 50 water tenders and 273 fire engines, said Tony Scardina, the Forest Service's deputy regional forester. The staffing rates are about the same as last season.

Eleven federal incident management teams — composed of 30 to 40 experts on fire attack, logistics, business management and planning — are based in California. They have access to 32 air tankers and 200 helicopters ready at all times to respond to fires in the Western United States.



"Key for us is the way we combine our resources with the state resources as well as local fire departments," Scardina said. "Cal Fire helps us on our fires, and we help Cal Fire on their fires." The Forest Service never knows what it will have to spend on fire suppression until the fires actually happen. In fiscal year 2018, it spent \$320 million on suppression in the Pacific Southwest region. In addition, \$293 million was budgeted for engines, equipment, training, personnel and staffing. The 10-year average for fire suppression spending is \$373 million.

In fiscal year 2017, it spent \$539 million fighting fires in the region.

Building codes

California has among the most stringent building codes in the country, yet the rules that help safeguard homes from wildfire cover only a fraction of the state's at-risk structures. And little has been done to extend these protections.

The California law requiring such features as fire-resistant windows and ember-blocking vents applies to homes constructed since 2008, meaning most residences and other structures aren't compelled to be fire-safe.

While the hardening provisions of the 2008 code have been shown to make a big difference in whether a house survives a fire, such upgrades can be pricey and out of reach for owners of older properties, so most don't retrofit. A new roof alone can cost tens of thousands of dollars.

"You have to address these home vulnerabilities, and if you don't you're not going to make a lot of progress on the fire problem," said Max Moritz, a UC Cooperative Extension wildfire specialist at UC Santa Barbara.

The Camp Fire, as well as the Tubbs Fire in Santa Rosa, underscored how quickly buildings can become dangerous tinder for wildfires if they're not adequately protected.

Some California communities have won federal and state grants to pay to bring older homes up to current codes, but the money is sparse. State legislation to create a \$1 billion fund to help homeowners make fire-safe retrofits, introduced in December by Assemblyman Jim Wood, D-Santa Rosa, hasn't moved forward.

Regardless, Cal Fire is working to create a list of home upgrades that it intends to promote. Not all safety improvements require deep pockets or expensive building permits, officials say.

"These are the things that we want to start teaching people: They can go to Home Depot and get the materials," said Daniel Berlant, an assistant deputy director at Cal Fire.

The agency also continues to work with cities and towns to encourage residential development from taking shape in areas with high fire risk. The state's guidance, however, carries little teeth since zoning



decisions are made at the local level, and communities are often torn between fire safety and meeting local housing needs.

Meanwhile, state fire officials are expanding the 2008 building code. They're requiring new home construction to include the sealing of garage door gaps and skylights to keep embers from getting in the house as well as mandating safety features on outbuildings.

Insurance claims

Homeowners in fire-prone areas are finding it harder to get and keep insurance, at least at a reasonable cost.

"We're calling it a crunch, not a crisis," said Amy Bach, executive director of consumer group United Policyholders.

When they can't get coverage from mainstream insurance companies, homeowners have two options. They can get a policy from the California FAIR Plan, which is made up of companies authorized to sell property insurance in the state; it is the insurer of last resort for homeowners and renters. Or they can turn to "surplus lines carriers" such as Lloyd's of London, which are much less regulated than mainstream or "admitted" carriers.

Last year, surplus lines carriers sold 49,370 homeowner policies in California with \$122 million in annual premiums, both up nearly 60% from 2016, according to the Surplus Line Association of California. In the first five months of this year, they sold 32,315 policies with \$87.7 million in premiums — up 75% and 108%, respectively, from last year.

The association can't say for sure that the increase in policy sales is concentrated in wildfire-prone areas, but "anecdotally, we hear a lot about admitted insurers pulling back," said Cliston Brown, a spokesman for the group.

The California FAIR Plan sold 33,898 policies in brush/wildland areas last year, up 25% from 2016. Meanwhile, lawmakers and regulators are taking steps to help wildfire victims and their neighbors. A state law that took effect Jan. 1 says that if you suffered a total loss in a declared disaster, your insurance company must offer to renew your policy for at least two renewal periods, up from one under previous law. That won't help victims of the 2017 and 2018 wildfires, though.

Also starting this year, a new law prevents insurers from not renewing any residential policy in a ZIP code within or adjacent to the fire perimeter for one year after a disaster is declared. That will temporarily protect people who live in or near disaster areas but suffered a partial or no loss.

State insurance Commissioner Ricardo Lara is trying to help people who lost their homes in the 2017 wildfires who still haven't replaced them and are running out of time to have their additional living



expenses covered. Most policies provide coverage — up to a certain dollar limit and time limit — for expenses such as rent, food, moving and storage when disaster survivors are living in temporary housing.

In the past, the standard time limit was two years. At that point, coverage ended even if policyholders hadn't reached their dollar limit. A law that took effect on Sept. 21 extends the time limit to three years, but it doesn't apply retroactively to survivors of the October 2017 Wine Country fires.

On May 29, Lara said he was asking insurers to voluntarily give those people at least one additional year to use up any coverage they had left. The commissioner does not have data on how many Wine Country fire survivors won't have exhausted their dollar limits on the two-year anniversary of those fires. The commissioner hasn't said yet what the response to his request has been, his spokesman Michael Soller said. There is no deadline for responses.