California Housing Policy Is Making Wildfires Worse



A Cathedral City firefighter hoses a burning structure at the Meadowood Napa Valley resort in St. Helena, California, on September 28, 2020.JANE TYSKA / DIGITAL FIRST MEDIA / EAST BAY TIMES VIA GETTY IMAGES

Monday morning, Sept. 28, California woke up sweaty, devastated, even shocked to find the state burning again. But if we're honest, and to our great shame, no one was surprised. We'd seen this horror movie in this town. Three years ago, wildfire killed 25 people in Sonoma County. Now the Glass Fire was there, again, burning toward Santa Rosa. At 12:30 a.m., a string of seniors stood in line, many in pajamas, waiting to board an evacuation bus from their retirement home. A tiny woman with a roller bag stooped over her walker. A man in a red shirt leaned on his red cane. A woman in a purple robe and magenta slippers sat in her wheelchair, a white teddy bear in her lap. They disembarked at the Santa Rosa Veterans Memorial Auditorium. But then at 2:48 a.m., before the slumped crowd, a young man climbed on a folding chair and announced: The fire was moving too fast toward them. Time to move again.

Farther east, the Butte County sheriff issued an evacuation warning for the entire town of Paradise. The Camp Fire killed 85 people in Paradise less than two years ago. Many survivors, including the former mayor, spent the night trying and failing to sleep in one of Paradise's 434 newly rebuilt homes.

It is all too close, too soon: the propane tanks exploding, the safety-vest orange sky. By daylight, that sky rained chunks of ash, like dead moths. Many Californians would have felt less triggered by locusts.

California, as we all now know, is going to burn.

The ecosystem here depends on fire to stay healthy. OK, fine.

We suppressed that fire for a hundred-plus years, and now we're living with a deathly backlog of kindling. Not fine, but that's going to take decades to fix.

The climate crisis has warmed and dried that tinder, leading to five of the six largest fires in California history *just this year*. Not fine at all, but the time frame of remedying this ... uhh ... let's just put that to the side.

Which leaves us with the one thing we could be doing to keep wildfire from destroying homes and lives: get a whole lot smarter about where and how we build.

Housing is the megafire-sized climate issue that lawmakers in California keep failing to adequately address — even though when asked directly how important housing is to California climate policy, Kate Gordon, Gov. Gavin Newsom's senior climate policy adviser, told me, "Oh, it's HUGE." Yet it remains intractable.

Adam Millard-Ball, a professor who studies urban planning and environmental economics at the University of California, Santa Cruz, told me, "It's absolutely the weak link in the state's climate policy." Affluent urban areas and suburban areas have been incredibly successful at "pulling up the drawbridge," as Millard-Ball put it, blocking new housing and pushing Californians to live in evermore remote communities, often in what's known as the wildland urban interface. (WUI, the shorthand for this area where humans meet nature, is pronounced woooeeee.) It kicks off a pernicious cycle. Once there, people drive more, increasing emissions. And thanks to emissions globally, those areas are burning more than ever before. In August, Millard-Ball himself recently had to evacuate his home because of the CZU August Lighting Fire Complex.

"So with that as a backdrop. ..." he said. "California's housing dysfunction has been thrown into really tragic, stark relief for the last couple of months."

California leads the country on most climate issues; its showpiece is green transportation. Just last week, amid this latest round of fires, Newsom promised to phase out new gas-only cars by 2035. "But when it comes to addressing the root causes why people have to drive in the first place. …" Millard-Ball trailed off. Not much happens. Or not much good.

On Wednesday night, Newsom vetoed a bill that would have nudged Californians to stop putting new housing in high fire-risk zones. The piece of legislation had overcome a yearlong delay, appeased initial detractors — including the development lobby — and passed the legislature by wide margins before flaming out at the eleventh hour on the governor's desk.

It was, as original sponsor Sen. Hannah-Beth Jackson, a Democrat from Santa Barbara, acknowledged when the California Senate Housing Committee began debating it in April 2019, "not exactly the sexiest stuff in the world." But it had two important goals: One, to identify existing structures highly vulnerable to burning in wildfire and make plans to retrofit them. (This was not politically complicated, as the measure did not even include funding.) Two, to ease pressure to develop in the parts of California with the highest wildfire risk. To date, no legislation related to wildfires — or any other climate-related hazard — impacts California's arcane housing allocation system. (That system tells each region how much housing it's required to build over a stretch of five or eight years.) But once wildfire risk is codified as a valid reason not to build, what's next? Extreme heat? Nick Cammarota, with the California Building Industry Association, articulated that viewpoint when he called the bill "a housing killer."

"We don't want to have gentrification. We don't want to have seismic risk. We don't want to have sea level rise or wetlands, or ag land preservation or floods, or toxics. Or you name it," he continued. "The entire state is covered with imperfect places to build."

Yet dealing with WUI development, according to fire pros like former California State Fire Marshal Kate Dargan, is "the most urgent" fire question in the state.

Newsom did sign legislation to improve emergency response and preparedness efforts. But his veto of what was a pretty modest bill felt inauspicious to climate policy wonks who pay attention to such things. "At this moment, it is extremely disappointing to hear that \@GavinNewsom decided not to sign #sb182," Michael Wara, director of the Climate and Energy Policy Program at Stanford University, tweeted at 10:31 p.m. on Wednesday. "The housing crisis enormously complicates decisions not to build anywhere. But solutions to California's housing production needs are not now nor will they in future be in the WUI." A half-hour later he tweeted again, appalled by Newsom's refusal to back away from "sprawl that must ultimately be defended from wildfire at enormous cost in treasure, and hopefully not in blood."

What will it take to create change? "If we can't do it now, with the impetuses of the housing crisis and the wildfire. ..." Millard-Ball said. Then he trailed off. "It would be incredibly sad to sit back and do nothing."

This is the basic WUI problem: Houses are essentially big piles of fuel. Houses in the WUI also mean people in the WUI, and people ignite over 95% of California wildfires. Houses further increase risk to lives and structures by making it difficult for land managers to do prescribed burns. Once wildfires grow large, houses increase risks for firefighters. Houses in the WUI cost a fortune to defend.

Max Moritz, a wildfire specialist at University of California Cooperative Extension at the Bren School in Santa Barbara, began focusing intently on the WUI problem six years ago. He'd been creating fire probability maps under different climate change scenarios, and his data on fuel included plants that could burn, but not buildings. He found that nearly a quarter of the increased risk that appeared to be due to climate change was in fact due to development. So in 2016, Moritz worked with a team of scientists to co-write a paper laying out why we need to include land use in the wildfire models. ("I can send it to you if you want it. It's great bedtime reading.") Then Moritz pivoted to synthesizing the research on fire in the WUI. His goal was to lay out the facts for policymakers. "Then maybe this stuff could get codified," he said. "Because yeah, why isn't it? Why isn't it regulated?"

After the 2009 Black Saturday fires in Australia that killed 173 people and

destroyed 2,133 homes, the federal government launched a commission that found (among many other things) "planning and building controls are crucial factors affecting safety." The Australians then instituted swift, sweeping changes. Among them: including bushfire risk in planning new development and making ember risk part of building codes. Yet, over the past seven years, wildfires in California have killed 193 people and destroyed nearly 50,000 structures, and the state has done comparatively little to fix the problem. "We have these tragic, huge events. We have Black Saturday after Black Saturday and almost no movement on these things," Moritz said.

He'd hoped the research he and others had done on where and how we build in the face of climate change would spur bolder action. "Man, you've got the chance here to establish your legacy, as a progressive leader, tackling a tough problem," he said, as if talking to Newsom shortly before the governor vetoed the bill. "But hey, land use urban planning ... that's political. That's tough, right? Yeah. We need some guts."

To protect a single home from wildfire in the WUI, this is your basic checklist. Defensible space. (No combustibles close to your home — for sure in the first 5 feet. Newsom did sign a separate law on Tuesday mandating this for high fire severity zones.) Class A fireproof roof. Dual-paned windows. Remove flammables from under deck. Metal gutter covers. A mesh covering all vents.

But protecting a single home in the WUI is (with only some exaggeration) like being the only one in your family who wears a mask. Safety is inherently a community project, and fire experts, as a rule, freak out about their neighbors' houses and yards. One has nightmares about wood shingle siding "that ignites and flies off like an airfoil spreading fires." Another about mulch that lets embers smolder until a wind whips them into "open flames that creep right up to people's house walls." A third told me about ponderosa pines killed by bark beetles but not yet cut down. "Have you ever had a real Christmas tree and burned it in February?" he asked. "They go off like napalm."

For Wara, of Stanford's Climate and Energy Policy Program, the zombies are the 20-foot-tall juniper bushes that line his neighbor's house. "It's a herd immunity thing, right?" he said. Once your neighbor's house catches fire and starts throwing embers, yours is probably next. "I don't think people get that."

In the early 1970s, the National Commission on Fire Prevention and Control tackled the problem of indoor fire. This culminated in the "America Burning" report, which in turn led to the creation of the U.S. Fire Administration and an over 50% drop in indoor fires since 1980. But there's no such equivalent effort for wildfires. To help fix this, for the past two years, Alexander Maranghides, a fire protection engineer with the National Institute of Standards and Technology, or NIST, has been co-leading a detailed reconstruction of the Camp Fire that destroyed Paradise. (NIST plans to release its first of three 400-page reports this fall.) "The outside fire problem is technically somewhere between one and two orders of magnitude more complex than the interior fire problem," Maranghides said. Those fires involve topography, weather, fuel conditions, fire-fighting response, on and on. Just defining the fire dynamics of embers alone is a huge task. The intention of this science is not to keep people from living in the WUI at all, which almost nobody thinks is feasible. The intention is to make the public and policymakers WUI literate and provide science and tools that could lead to the creation of cost-effective solutions, so we don't keep repeating the same tragic, expensive mistakes.

Wara pointed out that people are rebuilding in Coffey Park, a neighborhood in Santa Rosa that was nearly destroyed in 2017. "And they're doing all these things that are so avoidable. Like wood fences connecting the homes. It's like a vertical, combustible ember catcher! You just don't need to do that."

Here's the political problem: 11 million people, over a quarter of all Califorians, live in the WUI. We are not going to kick them out.

At the same time, the state is in a housing crisis, and Newsom staked his career on fixing it. In his inaugural address, in January 2019, he announced "a Marshall Plan" for housing and promised to build 3.5 million new affordable units by 2025. You could hear the tension between that promise and watching his state burn down in his veto Wednesday night. "Wildfire resilience must become a more consistent part of land use and development decisions," he wrote. "However, it must be done while meeting our housing needs."

Right now, the state's climate priorities are skewed. California has "focused on solar and wind and electric vehicles — the sort of technology solution side of climate," she said. "We haven't focused as much on land use," Gordon, the Newsom adviser, admitted. This is an oversight, and the administration knows it,

even refuses at times to act that way. "As a state, we're the one who pays for the disaster mitigation, right?" Gordon said. "It's just not sustainable. I mean, our entire budget will become about disaster response if we don't get ahead of this thing."

Without action at the state level, it's hard to see how California achieves good climate housing policy. Local governments have a lot of power. Too much power, Millard-Ball, the UC Santa Cruz professor, argues. "Cities can effectively ignore the climate crisis when they're making certain decisions," he said. "Like most cities in California have developed climate action plans, which are great in terms of things promoting waste reduction and street trees and energy efficiency. But they have said almost nothing about creating more walkable, transit-oriented places to live."

The situation is becoming dire. Insurers, losing a fortune in the WUI, are rapidly dropping homeowner policies. The hemorrhage of "non-renewals" grew so acute that California's insurance commissioner essentially instituted a circuit-breaker halt and declared a one-year moratorium. But that may not be enough help for residents to afford to stay. As Mariposa County Supervisor Kevin Cann told me, "You go on the FAIR Plan" — the California insurance policy of last resort — "and you realize, Holy smokes! I used to pay \$1,200 a year and now I'm going to pay \$5,000. That's a second mortgage."

The hard truth is: this is as it should be. WUI housing, with its true costs factored in, is not the bargain real estate agents refer to when they say, "Drive until you qualify." Last year, the National Bureau of Economic Research, or NBER, published a paper detailing how taxpayers are subsidizing people living in high fire risk zones. How? Firefighting is expensive — California may spend a billion dollars this year. A large percentage of that will go to defending private homes. This firefighting "benefit" is not negligible: NBER calculated it can exceed 20% of a property's value. The very fact that firefighting is publicly funded decreases the incentive for WUI residents to fireproof their properties. Distorting the housing market further and creating moral hazard: Because much of firefighting budgets comes out of federal disaster funds, publicly funded fire response decreases the incentive for a city or state — hello, California — to create and enforce wildland building codes.

This pattern, according to NBER, will grow more pronounced with climate

change.

The state would also save money if it took a preventative medicine approach and shifted more funds into fire prevention. Every dollar invested in risk mitigation typically saves six in disaster costs. Dargan, the former state fire marshal, who was a firefighter for 30 years and has a son working as a first responder right now, believes the state makes a mistake by not viewing fire prevention and suppression as the same thing. "Mitigation and response just happen at different times on the continuum of solutions," she said. "We have the world's best response system in California." And that system works beautifully — until a megafire erupts. Then that system fails. At that point, no matter how well they're trained or how hard they work, "firefighters are unable to focus on firefighting. All they can do is get people out ahead of time and even then we're beginning to fail at greater numbers." We need a better plan. For taxpayers. For WUI residents, like those seniors evacuated from their homes after midnight in Santa Rosa on Monday and then evacuated from the evacuation center around 3 am. For people, including her son, on the front line.

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