

Protecting our rural environment by promoting citizen participation in sustainable land use planning since 2006 The Community Action Project (CAP) administers the Calaveras Planning Coalition (CPC), which is comprised of regional and local organizations, community groups, and concerned individuals who promote public participation in land use and resource planning to ensure a healthy human, natural, and economic environment now and in the future.

Learn more at <u>www.calaverascap.com</u>

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Join Us!

Get a glimpse into what CPC membership is like by attending a meeting. There is no commitment, just show up and listen in!

Next Calaveras Planning Coalition Meeting October 4, 2021 3 P.M. - 5 P.M. New Members Welcome at CPC Meetings

Organizations, groups, and individuals (known as associate members) may join the Calaveras Planning Coalition (CPC). Prospective members may attend two consecutive meetings before making a final decision on membership in the Coalition. The membership form is a pledge to support and advocate for the Coalition's eleven Land Use and Development Principles, which you will find on our website:

www.calaverascap.com.

There is no membership fee. However, members are encouraged to donate to the Community Action Project/Calaveras Planning Coalition. <u>Visitors and prospective members will, by necessity, be</u> <u>excluded from attorney/client privileged discussions.</u>

If you are interested in membership, please email CPC Facilitator Tom Infusino, tomi@volcano.net, to receive a membership form, agenda, and the Zoom meeting connection.

To help prevent the spread of Covid-19 in our county, all CAP and CPC meetings will be held online via Zoom until restrictions are lifted by the Public Health Department.

Board Of Supervisors October 12, 2021

Agenda Upcoming

Planning Commission Meeting October 14, 2021 Agenda Upcoming

Local News

Calaveras County COVID-19 Data

- 73 Deaths.
- 1 active hospitalization
- 107 active cases
- 53.29% fully vaccinated
- 3,272 Recovered
- 3,452 Total confirmed cases

Calaveras County 2020 agricultural crop and livestock report now available

From CPC Member Colleen Platt, MyValleySprings.com

The report was presented at the Sept. 28 BOS meeting -- and can be accessed here:

Interesting info in the report, some related to land use. A few highlights:

- Almonds -LOST huge crop value from 2019 to 2020 (\$5,500/ton dropped to \$1,980/ton). Maybe people will stop planting new almond orchards and drilling new wells in rangeland! (good for the water table and rangeland both)
- Olives-huge increase in value/ton from 2019 to 2020. (Go olives! drought-tolerant)
- Calaveras County Statistics--land acreage (pg 12). From the acreage listed, I calculated: Ag Preserves are 22% of total land area; Rangeland 30%; All Ranch & Farm Land 36 % of total land area.

Redistricting - Release of Draft Map

Calaveras County

The supervisorial district draft map is now available on the County Redistricting website. The map was drawn using 2020 Census data and public comments received to date from the community. The 2020 census block map and population data is now available within the mapping tool as well. The first Post-Draft Map Public Hearing will occur on October 12, 2021, in the Board of Supervisors Chambers. The community is encouraged to attend the hearing and provide input on the draft map.

The public may continue to utilize <u>community mapper</u> to submit community of interest maps and to make public comments. Written public comments and paper maps may also be submitted to the County Registrar of Voters Office, 891 Mountain Ranch Road, San Andreas, CA 95249.

Please contact the County Clerk at <u>redistricting@co.calaveras.ca.us</u>, or call (209)754-6376 with any questions or comments. More information is available on the County Webpage under <u>Redistricting</u>.

Rebecca Turner

Clerk-Recorder & Registrar of Voters

Calaveras County

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Work begins next week to resurface downtown streets

Nick Baptista / The Valley Springs News / September 29, 2021

The finishing touches on a lengthy construction project in downtown Valley Springs are expected to begin in a few days.

Pacific Gas & Electric Co. has been replacing the natural gas lines in Valley Springs and left behind a patchwork of asphalt on the streets.

However, beginning in early October, a PG&E subcontractor will start resurfacing the streets.

The street restoration work is expected tro take between two and three weeks, according to Joshua Ksenzulak, Calavereas County public works analyst.

PG&E has been busy the past summer in the Valley Sp[rings area on the pipeline work and replacing a gas regulator station off State Route 26 at the intersection with Gold Creek Drive.

PG&E has replaced much of the natural gas system following the Sept. 9, 2010, San Bruno pipeline explosion that killed eight people.

PG&E faced private, state and federal litigation following the explosion.

In private party litigation, PG&E stated in its 2015 annual report it had paid \$558 million in third-party claims, and \$92 million in legal costs, and received \$515 million from insurance.

The state's Public Utilities Commission fined PG&E \$1.6 billion and the federal government fined the company \$3 million.

Summer heat breaks 1936 "Dust Bowl" record

Jan Hovey / The Valley Springs News / September 24, 2021

As we transition into the fall season, Calaveras, as well as many California and Western U.S. residents can agree – it has been one heck of a "long, hot" summer. But just how hot was the summer?

According to Newsweek, "Scientists have determined that the heat wave in the West during the summer of 2021 has broken the record set during the Dust Bowl of 1936."

Nationwide, the stretch from June to August tied with the 1936 Dust Bowl summer as the hottest on record, with temperatures across the country averaging 2.6 degrees above normal, according to the National Oceanic and Atmospheric Administration. A record 18.4 percent of the contiguous Unmited States experienced record-warm temperatures.

The Monthe of August finished as the sixth-warmest August on record, following RECORD-HOT July. Across the Northern Hemisphere, this summer tied as the second hottest in its 142-year record, according to scientists at NOAA's National Centers for Environmental Information.

"The grim conditions of the Dust Bowl years were more of an outlier," said Karen McKinnon, an assistant professor at the UCLA Institute of the Environment and Sustainability, while the latest extremes belong to a larger warming trend. "In fact," she said, "the summer of 2021 was even hotter than mere extrapolation would suggest, leading some to question whether that warming is accelerating."

California and several other Western states experienced their hottest summers on record this year. Warming trends are fundamentally altering life on the West Coast, causing a rise in energy usage for air conditioning and air purifiers for wildfire smoke. But it's not just human beings who are suffering – so is the wildlife, especially inhabitants in the ocean and rivers. An estimated 1 billion sae creatures died because of heat off the coast, and the

Sacramento River is facing a "near complete loss" of young Chinook salmon because of abnormally warm waters.

Locally, in Angels Camp, 99 – degree and above days forecasted this year in June totaled 10, in July – 18 days and in August – 14 days. That's 42 days in three months, coming in at 47 percent summer days of extreme high temperatures. To top it off, some days registered as high as 111 degrees.

Rising heat and drought conditions have fueled huge fires this summer. Firefighters say heat has made the terrain so dry that it is primed for ignition, spreading faster and hotter fires than they've ever seen.

The Dixie and Caldor fires became the first to burn from one side of the Sierra to the other, and officials fear conditions will worsen in coming months as the winds of fall arrive.

More than 2 million acres have already burned this year, and more than a dozen active wildfires are blazing across California. Added heat, dryness and the potential for dry lightning could make conflagrations worse or even ignite new ones.

"The warming of temperatures overall can lead to drying, and that drying later in the season can lead to warming, and all of those things can lead to enhanced wildfire,' McKinnon said. "Basically, it is all linked."

Alan Barreca, an environmental economist at UCLA, said extreme heat is among the deadliest of natural disasters, and soaring temperatures often disproportionately affect the most vulnerable, including pregnant women and infants, elderly people, the homeless and residents of low-income neighborhoods.

Extreme heat also could be deadly for people without air conditioning during a heat wave, especially when residents are prompted to stay inside with doors and windows shut to avoid the hazardous effects of wildfire smoke.

Conditions have already become so dire that the Californis Independent System Operator, which runs most of the state's power grid, asked the federal government to declare an "electric reliability emergency" that would allow six natural gas-fired power plants to generate power at maximum levels, even if they violate air pollution limits. It is a scrambling effort by state officials to reduce the risk of rolling blackouts in the face of increased energy demands by adding new electricity supplies, including fossil-fuel resources that contribute to worsening heat waves – a short-term sacrifice that has proved controversial among clean energy groups.

One thing that can be said is that we survived through it all, and hopefully Calaveras, California and communities in the nation will keep resiliency at the forefront.

For more information, visit the National Oceanic and Atmospheric website at www.noaa.gov.

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Fall color is a bit early this year! Plan a visit to your favorite fall color spots soon - the eastern Sierra in Mono County is already almost peaking!



Upper Summer's meadow (c) yosemitenorthphotography.com

Regional News

The Dixie fire threatened to pass 1 million acres, then was stopped in its tracks. Here's

how.

Hayley Smith / LA Times / September 26, 2021

When <u>the Dixie fire</u> sparked in Plumas County on a warm afternoon in July, few could have known that it would morph into the monster it soon became. A downed tree, a blown power line fuse and a small ring of fire were all it took to create <u>the second-largest wildfire in</u> <u>California history</u>.

In the days and weeks after the fire began, it produced one ominous sign after another — generating its own lightning, burning <u>clear across the Sierra</u> and, most horrifically, <u>reducing</u> <u>the town of Greenville to ashes</u>.

Soon it was threatening to surpass the size of the August Complex of 2020, the largest wildfire in California history, which burned <u>more than 1 million acres</u>.

But after nearly two months of nonstop expansion, something shifted. Seemingly overnight, the weather grew more favorable, the fiery terrain leveled out, and crews were able to turn a corner on the massive blaze. The Dixie fire stopped growing, as if frozen in time, at about 963,000 acres. As of Friday, <u>it was 94% contained</u>.

It was a hard-won victory, and experts say there is much to be learned from the Dixie fire - an unprecedented fire even in an <u>era of unprecedented fires</u>.

"We just can't get used to these kinds of numbers," said Scott Stephens, a professor of fire science at UC Berkeley. "That size is just mind-blowing."

Many experts said the speed and scale of the Dixie fire's spread sent a clear message about the toll <u>extreme heat</u> and drought are having on California's overgrown landscape. It also amplified the urgent need for more proactive measures to prevent similarly massive fires.

"The Dixie fire is the final, nail-in-the-coffin piece of evidence that traditional firefighting methods are not up to the challenge of the kind of <u>wildfires we get in the 2020s</u>," said Chris Field, director of Stanford University's Woods Institute for the Environment. "Basically, this fire jumped over everything that we would have considered a traditional defensible fire line."

Field attributed a few factors to the Dixie fire's growth — most critically, the century of <u>fire</u> <u>suppression</u> that enabled vegetation to pile up in the state's forests. When that droughtdried vegetation met with embers from the Dixie fire, it easily ignited, enabling the blaze to "carve its own path like a glacier."

"It's a really scary confirmation of the extensiveness of the fuel buildup," Field said, "and that basically we're in an era now where any place you drop a match or a burning ember, you get a new fire. And that vulnerability is really hard to deal with."

The Dixie fire also confirmed that the <u>August Complex</u> was not the anomaly many hoped it would be. In fact, <u>six of the 10 largest fires</u> in the state's history have burned in the last two

years, according to the California Department of Forestry and Fire Protection.

And in many ways, the Dixie fire was more fearsome than the August Complex. That blaze was composed of more than 30 smaller fires that ignited after an <u>unusually fierce lightning</u> <u>storm</u> in Northern California.

This fire, on the other hand, merged only with one smaller blaze to form a singular inferno.

"This Dixie fire is one fire, so it's not a complex of multiple fires," said Tim Phelps, an incident spokesman for the Dixie fire. "It's uncharted territory."

Phelps said the critical dryness of the landscape helped fan the fire's expansive growth throughout July and August.

"What is unique this year, compared to previous years, is just how dry that material is," he said of the trees and grasses the fire seared. "Because of <u>this drought</u>, because of the lack of moisture for such an extended period of time, [those fuels] are incredibly receptive to fire. Fire spreads easier, it spreads faster."

For months, fire officials warned residents that conditions were ripe for disaster.

Vegetation was at record dryness heading into fire season, and it grew drier over the rainless summer. Worsening drought conditions shrank the state's reservoirs to <u>historic lows</u>, with officials across the West declaring water emergencies.

"Early on, wind and terrain was a huge factor," said Joe Zwierzchowski, an incident spokesman for the Dixie fire's east zone, noting that rugged, steep landscape made it difficult for crews to get in front of the fire. "Then you tack on high winds and extremely dry conditions, and you have a powder keg of worst-case scenarios all lined up in one."

Those conditions lasted for several weeks, when containment gains were hard to come by and even harder to hold. But when the weather backed off, the wind died down, and the flames moved into more favorable territory. "It got to a place where we could fight the fire," he said.

Officials on the fire's west zone also noted that a spot of rain and slower winds allowed them to get ahead of the flames. When the fire reached Hall's Flat and other less-steep areas in Lassen County, crews were finally able to forge ahead with bulldozers and hoses — playing offense after months of defensive moves.

"Everything basically was the right spot at the right time, for the first time, on the fire," west zone spokesman Chris Ziegler said.

Ziegler also credited a history of <u>prescribed burns</u> — including a project in Warner Valley this spring — for slowing the spread and protecting a community in the fire's path. Prescribed burns help clear dried vegetation, essentially a fire's fuel, before a wildfire arrives.

The burn scars of other nearby fires, including the <u>Walker</u>, Hog, <u>Sheep</u> and <u>Beckwourth</u> <u>Complex</u> fires, also lent a hand, he said, because their lack of fuel gave the flames nowhere to go. But while smart firefighting made a significant difference, timing and luck were also essential in stopping the Dixie fire. The blaze's behavior was erratic and unpredictable throughout most of its run.

"The essential feature of these mega-fires is that we don't have any way to put them out when they're in their prime habitat," Field said.

Stephens, of UC Berkeley, said the overgrown conditions of the forest were by far the biggest piece of the puzzle. In certain areas, the landscape was so dry that the likelihood of an airborne ember igniting a spot fire was higher than 90% — a near guarantee.

"The fires this year were very efficient at basically propagating themselves by spotting, just by embers," he said.

Like others studying the state's fires, Stephens said that decades of inaction — coupled with <u>climate change</u> and the current two-year drought — were a perfect recipe for the Dixie fire because they kept fuel moistures critically low and highly receptive to fire.

"It shows the vulnerability of our forests and landscape," Stephens said of the Dixie fire. "Climate change and the drought adds to the vulnerability, but the biggest piece I'd still say is the condition of our forest. I'd say it's 75% of our problem."

Many ecologists have noted that fire is not only necessary but healthy for California's landscape. Already this year, <u>prescribed burns have been credited</u> with helping save the state's beloved giant sequoias from the KNP Complex burning inside Sequoia National Park.

The Dixie fire, too, may be restorative for the state's landscape, Stephens said. Portions of the fire burned under moderate conditions that will likely lead to a healthier forest in the long run, although there were some patches that may have suffered catastrophic damage.

"But the problem is, the price is too high," he said. "The price is <u>Greenville burning up</u>, maybe 700 houses lost, and whole economies being disrupted for months."

Fewer wildfires and more controlled burns — as well as the reintroduction of Indigenous burning practices that were aggressively stamped out by fire-suppression policies — may be the best path forward for the state, and will help create a mosaic of burned areas that could keep wildfires like the Dixie from spreading out of control, he added.

But transitioning into more of a "stewardship mode," where fuel treatments are performed and maintained at scale, will require renewed effort and resources. Gov. Gavin Newsom on Thursday signed a <u>\$15-billion climate package</u>, the largest such investment in state history, which will include about \$1.5 billion toward wildfire response and forest resilience.

And President Biden's expansive <u>infrastructure bill</u>, if passed, would allow for more than \$3 billion for wildfire-risk reduction, including mechanical thinning, controlled burns, infrastructure projects and structural defense, all of which will most certainly be needed in the years to come.

The alternative to doing that work, multiple experts said, is a future of far more Dixie fires.

This story originally appeared in Los Angeles Times.

We've been fighting fire for a century. It's not working - and there's a better way

William Deverell & Elizabeth A. Logan / The Conversation -The Daily Beast / September 28, 2021

Over two days in the summer of 1910, wildfires roared across the bone-dry forests of the inland Northwestern U.S., the Rockies, and parts of British Columbia. Whole towns burned. The blazes scorched 3 million acres of forest, an area the size of Connecticut, and left behind a legacy that profoundly changed how the U.S. managed wildfires—and ultimately how fires behave today.

The Big Burn shook firefighting agencies and officials, most notably the newly formed U.S. Forest Service and its leaders. As those who had witnessed The Big Burn rose through the pre-World War II Forest Service ranks, a firm and unyielding policy rose with them:

Forest fires were to be put out. All of them. By 10 a.m. the morning after they had been discovered.

While not widely known outside the Forest Service, the "10 a.m. policy" is one of the most consequential environmental actions in American history. This absolutist fire suppression ideology, later publicized by Smokey Bear, has as its origin the Big Burn complex of forest fires in 1910 and its roots in 19th-century settler colonialism.

The aftermath of 1910 led to bold decision-making in forest and fire management techniques and directives. Fire suppression, at least in the way the Forest Service and allied agencies went about it—militarized, technologically impressive, expensive—led the U.S. down a forest management path that neglected other, more nuanced approaches to fire. The dismissal of Indigenous ecological knowledge about fire and land stewardship undoubtedly contributed to the rise of suppressing all fires.

Now, more than a century later, the 21st century's big burns are a signal that things have gone terribly wrong.

In 2020, fires in California alone burned more than 4 million acres and spawned a new term: the gigafire, a wildfire that burns more than 1 million acres. The August Complex was the first known modern gigafire. The Dixie Fire, which swept through the town of Greenville in northern California in August 2021, will likely be another gigafire before it is finally put out.

As <u>historians of</u> the western U.S. and heads of the <u>Huntington-USC Institute on California</u> <u>and the West</u>, we and our colleagues have been exploring what went wrong with wildfire management in the region, and why. Huge swaths of California and the West are on fire again this year, and wildfires are behaving in ways firefighters haven't experienced before.

Officials say that this year, for the first time on record, a wildfire crossed the Sierra Nevada from West to East—the Dixie Fire did it first, and then the Caldor Fire did the same thing a few weeks later. The Caldor Fire was so hard to control, fire officials in late August talked about trying to steer it into another fire's burn scar as their best chance to stop its race toward communities around Lake Tahoe. Some fires have become so extreme, they created their own weather.

Part of the problem is climate change. Drought and higher temperatures are fueling bigger, hotter and more dangerous fires than at any time in recorded memory. Summer wildfire seasons are lasting longer, droughts are leaving more fuel ready to burn, and fire weather is becoming more common.

Adding to the risk is the number of people living in wildland areas and all those years of fighting every fire.

The U.S. routinely put out about 98 percent of all fires before they reached a half-square mile in size. That means areas that normally burned every few decades instead built up fuel that can make fires more extreme when they do start.

In an unprecedented move this year, the U.S. Forest Service closed all national forests in California to hikers, campers and others through at least mid-September to lower fire risk and keep people out of harm's way. Several national forests in Arizona were closed earlier in the summer.

Closing the forests is not a sustainable solution. That it happened drove home the nature of the emergency in the West.

The response to the Big Burn was not only wrongheaded, in our view, but also crude in its single-mindedness. "Put all forest fires out" had a clarity to it, but a 21st-century fire paradigm shift will have to be connected to broader conversations about environmental knowledge and how it can best be shared.

The U.S. has learned that it cannot suppress its way to a healthy relationship with fire in the West. That strategy failed even before climate change proved it to be no strategy at all.

Building a more successful coexistence with fire includes figuring out how to work cooperatively. This includes broader conversations about environmental knowledge, what constitutes it and how best it can be shared. Indigenous communities have long lived with fire and used it to cultivate healthy ecosystems. Prescribed and cultural burning are important tools in mitigating catastrophic fire and simultaneously aiding forest health.

Living with fire also requires teaching everyone about fire. Schools at all levels and grades can teach fire knowledge, including the science of fire and its consequences for communities, economies and lives; the history and cultural practices of fire; and the plants, landscapes and materials that can help prevent fires. Finally, communities and landowners will have to reconsider how and where development takes place in high-risk areas. The idea that people can build wherever they want isn't realistic, and landowners will have to seriously rethink the reflex to rebuild once burned areas have cooled.

In our view, living with fire demands greater attention to learn from and care for each other and our common home. Collaboration, respect, resources and new ideas are keys to the path forward.

William Deverell is a professor of history at USC Dornsife College of Letters, Arts and Sciences and Elizabeth A. Logan is associate director of the Huntington-USC Institute on California and The West, USC Dornsife College of Letters, Arts and Sciences

Climate change is 'a freight train' making some places too dangerous to live in, experts say

Elizabeth Weise / USA Today / September 29, 2021

Joshua Schreiber and his family have never been city people. When they moved from Sacramento, California, to the <u>Sierra Nevada</u> foothills, they were thrilled to exchange cramped urban lots for a "jaw-dropping" vista and 5 acres that backed onto public land.

"It was insanely gorgeous and very affordable," the social worker said.

But after four years, they sold and moved 27 miles west to the far edges of the state capital's suburbs. As much as they loved their home, it was no longer tenable. Wildfires became more frequent, torching nearby ridgelines and inspiring dread.

"Every year it got drier and drier. We just didn't feel safe living there anymore," Schreiber said of the home in Pollock Pines they left. "We got tired of being on standby in the summer to evacuate."

This month, the 221,000-acre <u>Caldor fire</u> came within a mile from their former town, so close it singed two friends' houses and melted the vinyl windows of another, but sparing the one they used to live in. Still, only <u>76%</u> contained, it has burned for 43 days across three counties, destroying 1,003 structures.

Climate change – and the ever more extreme weather it brings – is changing real estate equations. American dreams are increasingly running into weather nightmares, raising pressing questions about where it makes sense to live.

"There are just some places that are too dangerous to occupy," said Chad Berginnis, executive director for the Association of State Floodplain Managers. "It's like a freight train coming at us but politicians and citizens aren't ready to hear that yet." Wild weather events, such as <u>stronger storms</u>, <u>flooding</u>, <u>droughts</u> and <u>fires</u>, are expected to worsen and become more frequent in the coming years, according to last month's <u>report</u> by the United Nations' Intergovernmental Panel on Climate Change.

Last year equaled 2016 as the <u>hottest year on record</u>. And this year will likely be one of the coldest of the coming century. The heating up of the Earth's atmosphere and accompanying dramatic climate swings are having an impact on life on its surface and the homes of people who live there.

Nearly <u>6 million more homes</u> and commercial properties are at risk than identified on the Federal Emergency Management Agency's floodplain maps, according to a recent analysis by the nonprofit First Street Foundation. That's by 2050, within the 30-year mortgage window. Similarly, more homes face extreme risk of wildfires than current projections by the USDA Forest Service, the First Street Foundation said.

So far this year, wildfires have burned more than 5.7 million acres nationally across <u>10</u> states, according to the National Interagency Fire Center. Sixty-three large fires were active as of Saturday.

Last year, the United States experienced <u>22 separate billion-dollar weather and climate</u> <u>disasters</u>, according to the National Oceanic and Atmospheric Administration. The horrific <u>collapse of Champlain Towers in Surfside</u>, Florida, brought home to many the potential danger of saltwater intrusion as sea levels rise.

On Aug. 31, Hurricane Ida, one of the strongest storms to ever hit the mainland U.S., ripped ashore in Louisiana before slamming into the Northeast. It killed more than 60 people. Insured property losses could range from <u>\$17 billion to \$25 billion</u>, according to AIR Worldwide, a catastrophe modeling company.

<u>Torrential rains</u> in Tennessee last month killed <u>20 people</u> and left dozens missing. Global warming is causing more of these kinds of extreme rain events, with the amount of precipitation in the southeastern United States <u>increasing by a third</u> between 1958 and 2016, according to the U.S. <u>National Climate Assessment</u>.

On Sept. 7, President Joe Biden declared a "code red" on climate change, saying "we're living through it now. We don't have any more time." He hopes that Congress will approve his \$1 trillion infrastructure plan, which includes several items to tackle global warming.

1. No adult in the room

Federal infrastructure programs take time. For now, despite the increasing number of Americans living in danger zones, federal, state, or local governments do little to stand in their way.

"The ball is essentially in homebuyers hands, said Zhong-Ren Peng, director of the International Center for Adaptation Planning at Design at the University of Florida.

Zoning is a local matter, and politicians are mostly interested in keeping property values high and increasing the tax base with more building, he said. Mortgage companies continue to sell in risky areas. Insurers raise rates or cease offering insurance at all, which prompts cries for federal programs.

There are solutions, say experts, but they require political and economic backbone to stop building in danger zones or at least insist on expensive adaptations.

"And adaptation means some places should not be developed at all," said Peng.

Asking individuals to make those decisions when they seldom have access to all the facts is unfair, said Jesse Keenan, a professor of real estate who researches climate change adaptation, economics and regulation at Tulane University in New Orleans.

"There's a <u>climate intelligence arms race</u>," he said. "The private sector is moving quietly to uncover these emergent risks but as a general proposition we just don't have good disclosure."

Thomas Ruppert, a coastal planning specialist at Florida Sea Grant and the University of Florida Extension, isn't confident anyone's going to be "the adult in the room" when it comes to making decisions about where is safe to build.

"There's no one at this point who has sufficient political or economic reason to stand up and say these things loud enough," he said.

2. The money's coming out of everyone's pocket

Not only those who live in harm's way pay. The costs end up on everyone's shoulders.

The National Flood Insurance Program is a federally subsidized insurance program that provides more than 95% of flood insurance in the United States. It's <u>\$20 billion</u> in debt, which falls on taxpayers.

There's no national fire insurance program, though some are calling for one. California has the California Fair Access to Insurance Requirements Plan, a state-mandated insurance pool that sells basic fire insurance for high-risk properties where traditional insurance will not.

In California, the cost of fire insurance has begun to go up as more fires hit every summer. No standard insurance companies would sell fire insurance to the Schreibers in the area they used to live. "We had to go through Lloyds of London. It was almost like another mortgage payment," Schreiber said. It was one reason they moved.

So far in 2021, almost 2 million acres of the state have burned and 3,050 structures have been damaged or destroyed according to <u>CalFire</u>. Last year it was 4.2 million acres burned and 10,488 structures. Such events result in higher insurance premiums for everyone.

The California Department of Insurance last Monday issued a temporary <u>moratorium</u> on insurance companies dropping customers in 22 counties who live next to or in the perimeter of a declared wildfire disaster. It was the third time such a moratorium had been declared since the law was first passed in 2018.

Property insurance, especially when it's federally subsidized, can create what experts call a moral hazard, encouraging continuing risky behavior because there's less downside.

Homeowners benefit from an implicit subsidy, Keenan said. "They aren't taking the risk, the government and the taxpayers are."

Insurance companies walk a fine line between being affordable and being rational. Consumers want cheaper insurance but that can result in bad choices.

Insurers are working to collect the data they need to properly price policies in risk-prone areas, said Karen Collins, assistant vice president for policy, research and international with the American Property Casualty Insurance Association. "We're starting to see a tipping point in California," she said. "There's discussion of putting the brakes on new development."

Any changes will need to be gradual, said Cooper Martin, director of sustainability and solutions at the National League of Cities.

"It's not to say you can't price risk, but you can't go from the system that we set up in the 1970s, fast-forward 40 years and just make those changes all at once," he said.

It might seem that lenders wouldn't want to buy a mortgage on a home that might not survive for 30 years. But there's no incentive for them to stop providing mortgages in high-risk areas when they can easily unload them, said Keenan.

Banks are <u>disproportionately</u> selling such home loans to the secondary market and not keeping them on their books, his research found.

"It's like musical chairs," said Lee Reiners, executive director of the Global Financial Markets Center at Duke University law school. "Lenders are still willing to knowingly make loans in areas that are at risk of climate change-related losses because they're just going to sell it on."

This could change. In January, the Federal Housing Finance Agency put out a <u>request</u> for comment on a plan to have Fannie Mae and Freddie Mac's pricing reflect climate change risk.

Or it could not. There's powerful political pressure not to do so "because there are a lot of hands in this cookie jar," Reiners said. "If you say people are going to have to pay higher interest rates or higher insurance premiums, their congressmen are going to hear from them."

3. An equity issue

Some areas have instituted buyout programs for homes hit with repetitive losses, usually due to flooding. Louisiana has a state <u>Watershed Initiative</u> which includes a buyout program for flood-prone areas aimed especially at low- to moderate-income residents.

But most buyout programs <u>favor the wealthy</u> and all do nothing for the <u>36%</u> of American households who rent, said A.R. Siders, a professor of climate change adaptation policies at the University of Delaware.

No matter how many homes are bought out, the amount of land being developed in danger zones and the size of those zones continue to grow. In many areas, far from pulling back from vulnerable lots development is expanding – and not just on the sandy Florida coast.

A 2019 <u>Zillow</u> and Climate Central analysis found that Connecticut is developing in flood risk zones three times faster than safer locations. In Delaware, Mississippi, New Jersey and Rhode Island, building is twice as fast than in areas less prone to flooding. New Jersey, Florida, and North Carolina have allowed the most homes built in risky zones.

The risk all too often ends up transferred to those who can least afford it when owners move out after floods or fires because the risk is too great and lower-income renters move in.

"This is a huge problem," said Tulane's Keenan. "What do you do about the people who come in and fill the void in these transitions?"

4. The adaptation paradox

An alternative to leaving danger zones is adapting to the coming changes. If sea levels are rising, build a sea wall. If wildfires loom, create buffer areas and fire harden buildings. If increasing rains cause flooding, raise houses and beef up sewer systems.

But sometimes protection can backfire. It's called "the safe development paradox."

"When people see a seawall, they have the false conception that they're living somewhere safe, so they don't even want to buy insurance," said Peng.

Making better land-use choices now would be cheaper in the long run, but there's little incentive for towns to do that because it doesn't add to the tax base.

Sometimes, even adaptation is impossible, as climate scientist Klaus Hans Jacob discovered when his wife fell in love with a house in Piermont, New York, in the Hudson River's tidal estuary. From decades of research, he knew rising sea levels would make the neighborhood even more prone to storm surges and flooding.

Jacob struck a deal with her. They'd buy it, but only if he could lift the foundation six feet.

"So we handed in the plans to our local government and they said, 'That's all good and forward-looking, but you can't raise it more than two and a half feet because you'll exceed the zoning height limitation,'" said Jacob, a professor of climate risk at Columbia University's Lamont Observatory.

They asked for a variance and were told no "because it would set a precedent."

When <u>Hurricane Sandy</u> hit in 2012, the couple had two and a half feet of mud in their living room. "A week after Sandy, I get a letter in the mail. It said, 'Now you can raise it up.'"

5. If you tell them, maybe they won't come

It might seem no one would buy or rent a house in an area experts say is likely to flood or burn, but that's only true if the potential residents know.

Organizations like the First Street Foundation and <u>ClimateCheck</u> have created detailed maps to show the climate-related risks of specific properties. A <u>Flood Factor</u> tool already exists and has been incorporated into the Redfin and Realtor.com sites, and a wildfire tool is coming this year. "Our mission is to democratize the information," said First Street's Michael Lopes. "Banks have this information, insurance companies have it, the government has it. Often (the buyer) is the last person to know."

In <u>21</u> states there's no requirement for full disclosure of threats when properties are sold. Out of the 10 states with the highest risk of severe floods over the next 100 years, only two have strong flood risk disclosure laws – California, and Louisiana, according to data from the Natural Resources Defense Council.

In New York state, for example, there is a requirement that sellers disclose whether a property is located in a designated floodplain and whether there have been previous flooding problems. But sellers can opt out of the requirement by paying a <u>\$500 fine</u>.

The argument by homeowners, real estate agents and some cities has been that making risk information available could cause some houses to lose value.

"But think about the alternative," Siders said. "We're tricking buyers by not giving them information in order to get them to pay more in order to live in a risk-prone area."

6. Hard choices

Solutions won't be easy.

According to experts, zoning must be tightened to stop building in highly vulnerable areas. Building codes must be strengthened so what's built can withstand what's coming. Sellers and landlords must be required to reveal known threats to would-be buyers and renters. Insurance premiums need to be more in line with known and anticipated risks. Government buyout programs must expand so homeowners and renters have an out.

Not everyone can move, so some kind of adaptation will be necessary, said Cooper Martin, director of Sustainability and Solutions for the National League of Cities.

"We can't just pick up and move thousands and thousands of people, whether it's supported by the government or not," he said.

Broadly, it will take rethinking the way housing and development have been structured since the Second World War. Take Florida, which was built on a culture of urban sprawl development, said Florida's Ruppert.

"In order to pay for today we need new development to inject more money into the economy to pay the bills to support areas that we've already built," he said.

Making existing towns denser and easier to protect from rising waters would save money because the tax base would increase with the existing infrastructure. Density can be cheaper to maintain and can produce the highest value per acre, said the National League of Cities' Martin.

"Cities are starting to talk about a combination of climate, housing and transportation planning all in one, instead of keeping those things separate," he said.

Breaking the cycle is difficult but to survive economically communities much change, Ruppert said.

"The way we live is not inevitable, it's the product of the choices we've made," he said. "If we learn that, we can start to rethink those choices and create the world we want to live in."

This article originally appeared on USA TODAY: <u>Future of housing in US uncertain as climate</u> <u>change disasters increase</u>





This is an electronic newsletter published every two months containing information on upcoming grant and funding opportunities for the Sierra Nevada region. The newsletter includes federal, state, and private foundation funders as well as additional resources and information related to grant funding. The Sierra Nevada Conservancy provides the Funding Opportunities Newsletter as a free resource under its Sierra Nevada Watershed Improvement Program.





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