

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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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 September 13, 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 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

Redistricting - Murphys - September 8 <u>Agenda</u> Redistricting - Mokelumne Hill - September 9 <u>Agenda</u>

Planning Commission Meeting September 9, 2021

Agenda

Redistricting Timeline

- September 8, 2021 at 6pm Pre-Draft Map Public Workshop: Supervisor lead town hall located in Murphys - Ironstone Vineyards focusing on communities along the Highway 4 corridor - Hosted by District 3 & 4 Supervisors, Merita Callaway and Amanda Folendorf.
- September 9, 2021 at 6pm Pre-Draft Map Public Workshop: Supervisor lead town hall located in Mokelumne Hill Town Hall focusing on Mokelumne Hill, Mountain Ranch, San Andreas and surrounding areas Hosted by District 1 & 2 Supervisors, Gary Tofanelli and Jack Garamendi.
- September 30, 2021 Redistricting data to be received from U.S. Census
 Bureau. <u>See announcement from U.S. Census Bureau here</u>

- Remainder of the dates will be adjusted upon receipt of the U.S. Census Bureau Data -

- September November 2021 County reviews new geography, data and prepares draft map alternatives from U.S Census Bureau data and comments collected throughout the public outreach period.
- October November 2021 Release draft maps to the public.
- October 1, 2021 Release of post draft map hearing dates and times.
- Date TBD Public Hearing #1 Post Draft Maps: Presentation to the Board of Supervisors. Review draft map alternatives. Solicit public comment on the proposed draft maps. Staff to receive direction from the Board based on public comments for map revisions.
- Date TBD Public Hearing #2 Post Draft Maps: Soliciting public comment on the proposed draft maps. Staff to receive direction from the Board based on public comments for map revisions.
- Date TBD Resolution adopting draft map presented to the Board of Supervisors.
- Date TBD Elections Office adjust precinct lines to conform to new supervisorial lines.
- December 15, 2021 Signatures in-lieu-of-filing fee period begins for U.S. Senate, Congressional, Legislative, and County candidates.
- June 7, 2022 California Direct Primary

Local News

'Staff are wiped out': Calaveras County health officials battle low vaccine rates as local hospital nears capacity

Dakota Morlan / Calaveras Enterprise / August 27, 2021

Health officials are upping the ante with their latest advisory that residents of the <u>sixteenth</u> <u>least-vaccinated county</u> in the state should get the jab, as Calaveras County's only hospital nears capacity due to a mounting COVID-19 surge.

Dignity Health Mark Twain Medical Center (MTMC) in San Andreas has seen a "significant increase" in Covid-related hospitalizations this week, according to MTMC administration. The influx of patients threatened to overwhelm the small, rural hospital on Friday

MTMC typically operates with a daily census of nine inpatients, but on Friday, there were 17 total patients hospitalized, seven of whom were Covid-positive, MTMC president and CEO Doug Archer told the Enterprise.

All seven Covid patients are unvaccinated, he added. One of those patients is on a ventilator, leaving seven remaining ventilators available for use at the hospital.

"An ongoing staffing shortage threatens to worsen the situation if numbers continue to grow," a press release issued by the county health department reads. "Staff are working hard to keep up with the current surge as administration searches for additional help. (Archer) has requested additional resources and traveling medical professionals with little success."

On Monday, the county health department <u>announced a change in its case-tracking method</u> in order to reduce strain on workers tasked with tracking down the growing number of active cases.

The local crisis comes as neighboring hospitals in the San Joaquin Valley Region, which includes Calaveras, Fresno, Kern, Kings, Madera, Mariposa, Merced, San Benito, San Joaquin, Stanislaus, Tulare and Tuolumne counties, are also experiencing a surge of patients and low availability of ICU beds.

As of Thursday the region had fewer ICU beds available than any other region in California, with about 11 staffed adult ICU beds available and roughly 49 adult ICU beds occupied by Covid patients, according to state-collected data.

"Many hospitals are experiencing similar situations when trying to bring in relief staff. We're all going to the same well but the well is quickly drying up," Archer said. "Our hardworking

hospital staff are wiped out after almost two years of responding to the COVID-19 pandemic."

Calaveras County's vaccine rate is lower than most other counties in the state, with 42.2% fully vaccinated, according to an L.A. Times vaccine tracker.

Local health officials on Friday urged residents to get the jab, citing that the county's low vaccine rate "may be contributing" to the rise in hospitalizations.

A recent Union Democrat report showed that out of 50 total Covid patients hospitalized at Adventist Health Sonora between Aug. 1 and Aug. 14, 43 were unvaccinated, four were fully-vaccinated and three were partially-vaccinated or had an unknown vaccine status. Fifteen of the total patients were in ICU and nine were on ventilators, all of whom were unvaccinated.

"An approach to reducing COVID-19 hospitalizations is centered around vaccination and other approaches such as masking and physical distancing. People can schedule a free COVID-19 vaccine appointment by visiting <u>myturn.ca.gov</u>," Calaveras County Public Health stated.

Members of the public are still encouraged to seek care at Dignity Health clinics for nonemergent medical care. MTMC requests that patients who need to go to the hospital limit their visit to a single caregiver to avoid overcrowding. The hospital will continue to triage patients while operating near capacity.

Calaveras Public Health reports 2 additional COVID-19 deaths; hospitalizations climbing

Dakota Morlan / Calaveras Enterprise / September 1, 2021

Two women, one in her 40s and the other in her 60s, have recently died from a COVID-19related illness, Calaveras County's health department reported on Wednesday.

The two recent deaths bring the total Covid death toll to 63 in Calaveras County, a community of about 46,000.

Current county data also shows nine Covid patients hospitalized, an increase of three from Tuesday.

"There are no words to describe the overload hitting our health systems at this time," county Health and Human Services Agency director Coril Allen said on Wednesday. "I urge us to come together in a way that can build community, strength, and a network of support. This may be a time to launch a kindness campaign and to consider the critical work being done by our medical providers, school nurses, Public Health staff and hospital staff day in and day out, who have been tirelessly dedicated to preventing this very spread for 18 months without break."

Calaveras County remains the sixteenth least-vaccinated county in California, tied with Amador County, with a fully-vaccinated rate of 42.5%

Last week, the county's only hospital <u>reported that it was nearing capacity</u> with 17 total inpatients, seven of whom were Covid-positive, and one was on a ventilator.

Dignity Health Mark Twain Medical Center (MTMC) has eight total ventilators.

MTMC President/CEO Doug Archer said that staff were "wiped out" from almost two years of responding to the pandemic.

<u>Guest Opinion: Who is ultimately responsible for</u> <u>our wildfire disasters and what can we do?</u>

Paul P / Calaveras Enterprise / August 31, 2021

Paul P. is a retired Silicon Valley firefighter who lives in Arnold.

The cost of today's wildfires is often measured in lives lost, buildings destroyed and acres burned. Just in the 2020 California wildfire season alone (through October 2020) more than 30 people were killed, about 8,500 structures were destroyed, and a record-breaking 4 million acres of land were completely devastated. This was double the acreage burned in 2018 and the state's second-worst wildfire season on record. Costs for the 2020 wildfire season alone are in excess of \$12 billion dollars!

Due to the ever-increasing wildfire threat, homeowners and business owners in or near the wildland-urban interface (WUI) are basically unable to obtain fire insurance since the state has allowed most of the private insurance companies to pull out of the California WUI market. For those who are unable to obtain fire insurance on the private market, they must now turn to the state of California's "FAIR Plan." And, contrary to what the name implies, the cost of the state-run program far exceeds (usually four times or higher) previous rates for fire coverage only. Then, an additional and separate policy must be obtained for the remaining coverage such as theft, water, damage, etc. Insurance rates in the WUI have literally quadrupled with the state-administered plan, while it is the state who, in part, created this wildland disaster throughout our forests.

There is also a tone that state and federal agencies, as well as industry, are the problem and have a direct cause-and-effect on our increasing wildfire catastrophes. Since the early 1900s, The California Department of Forestry and Fire Protection (Cal Fire), the U.S. Forest Service, and the Bureau of Land Management (BLM) have been tasked with "maintaining our forests" in California and other states. In fact, the Cal Fire "History Page" states that "Cal Fire is a State agency responsible for protecting natural resources from fire on land designated by the State Board of Forestry as State Responsibility Area (SRA). Cal Fire also manages the State Forest system and has responsibility to enforce the forest practice regulations, which govern forestry practices on private and other non-federal lands. Two major themes are attendant to the CAL FIRE mission. One is the protection of the State's merchantable timber on all non-federal lands from improper logging activities and the other is the protection of the State's grass, brush, and tree covered watersheds in SRA from wildland fire. ... The U.S. Forest Service became the Nation's primary instrument, for protecting natural resources on Federal land from fire and from timber exploitation. In the teens the National Park Service was established, and charged with protecting the Nation's scenic wonders. Both agencies, however, were protecting only those areas of Federally owned land under their jurisdiction and such private in-holdings that could potentially threaten the well being of the Federal lands. The large areas of timber and watershed lands privately owned that were beyond the National Forests and Parks came under the State authority."

The U.S. Forest Service webpage states, "Forest Service stewards an impressive portfolio of landscapes across 193 million acres of National Forests and Grasslands in the public trust. The agency's top priority is to maintain and improve the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of current and future generations. Forest management focuses on managing vegetation, restoring ecosystems, reducing hazards, and maintaining forest health."

The BLM webpage states, "The mission is to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations."

We have to ask, have the actions of these three governmental agencies (Cal Fire, U.S. Forest Service and BLM) been successful toward their mission statements? Have the stated expectations, actions and endeavors of these three governmental agencies been effective in the competent management of our forest lands? The facts speak for themselves, and it's obviously apparent with the rapid escalation of the recent massive, uncontrollable wildfire events that these three agencies have mismanaged and drastically failed at maintaining our forests in a "nature-like" fashion for many years. Their actions (or lack thereof) have directly resulted in the horrendous fuel levels that are now causing these devastating wildfires!

Over the past 100 years, these three agencies have actually allowed and contributed to our national forests' downfall by practicing poor fire management techniques, and they allowed the fuel loads in these forests to grow to horrendous levels. They have virtually mismanaged our forests from natural wonders to areas with vastly over-planted trees, thick underbrush, ladder fuels that extend from the forest floor to the lower tree canopies, sickly trees fighting for sunlight and water—not to mention the devastating bark beetle infestations resulting in huge dead stands of timber throughout our forests.

These three agencies have managed to turn our "nature-controlled forest areas" into vast over-forested lands that can no longer protect themselves as nature intended! Our forests are now income-driven timber lands, whose sole purpose is to produce wood products at unnatural levels. We no longer have healthy natural forests, but unfortunately have "vertical lumber yards" throughout our state and nation! Surely, had the westward immigrating pioneers of the 1800s encountered our current forest conditions, their wagon travel would have taken decades rather than months due to the necessity of clearing a path through the over-planted trees that our forests now contain.

To objectively look at these recent escalating and devastating wildfire events, one must look at all the factors involved. Fire requires three key components to occur: heat, fuel and oxygen, referred to as the "Fire Triangle."

Heat is usually in the form of an ignition source, either from nature (lightning) or by human (arson, discarded cigarettes, accidental or equipment failures, electrical wires). The simple arc of an electrical wire does not solely cause a conflagration, but it is only one of the key factors that are now in place due to humankind's 100 years of fire suppression. Actually, the equipment from utility companies has contributed to starting wildland fires since they've existed. However, prior to our current forest fuel loads, the fires of 50 to 100 years ago were easier to manage and extinguish with minimal crews and effort since they weren't the fuel driven conflagrations we experience today.

Fuel is the accumulation of dead, dying trees, over-planted trees, ladder fuels (bushes of manzanita, poison oak, sage, grasses and countless other species) that have been allowed to grow in size so that they span from the forest floor to the lower tree branches. It's also the accumulation of forest floor duff (also called detritus, duff and the O horizon). It is one of the most distinctive features of a forest ecosystem. It mainly consists of dry, shed vegetative parts such as leaves, needles, branches, bark and stems, existing in various stages of decomposition above the soil surface.

Oxygen is just that. The oxygen in the air that we and fires breathe.

One may ask, so what about "global warming" and its impact on our forests? Global warming is indeed a factor in our wildfires since it contributes to the drying out of the fuels and reducing moisture and rain levels. Global warming also moves and increases the time the wildfire events occur, from later in the year to earlier in the year, or even throughout the year, instead of fires being "seasonal" as they once were. Unfortunately, California has always had dry, warm summers throughout my lifetime. And traditionally, July through October is "fire season." Even though we've experienced a drought year this winter, it has only managed to move the fire season up a month earlier and perhaps extend it later into the year. After all, dry is dry, whether it's in June or July.

Thus, one can clearly see that the only factor that has substantially changed in our forest lands is the accumulation and increase of fuel levels. Fuel levels alone have transformed what were once manageable forest fires into raging, uncontrollable, devastating wildfire conflagrations.

So what can and should be done to correct this ugly, intolerable situation? Is the hiring of additional fire personnel and equipment (planes, helicopters, dozers and engines) the only answer? Well, possibly. But even if we had a million additional firefighters and an air force squadron of additional aircraft, these wildfire events would remain uncontrollable to a certain degree due to the weather—the winds that these fires produce, the erratic and severe fire

conditions they create, which are all directly due to fuel loads in our forests! In fact, the State Fire Marshal's Office within Cal Fire, under their Wildfire Prevention Engineering Program, states that "Wildfire Prevention Engineering processes reduce or eliminate fire hazards and risks, and change the environment by removing or reducing the heat source, modifying or reducing the fuels (this is where our defensible space program resides), and modifying the act or omission allowing the heat source to contact ignitable fuels."

The only problem with the "defensible space" program is that the fires in the surrounding forests are of such magnitude due to the fuel loads that the individual property owner's defensible space does little to slow or stop these massive encroaching fires, especially when they become crown fires.

Is there an immediate way to reverse these decades of mismanagement? What, if anything, can be done to reduce the fuel loads and the frequency and magnitude of these devastating fires in a timely fashion? Obviously, personnel and equipment are only a small part of a comprehensive plan that needs to be addressed in order for our state and national forests to survive, as well as provide those who live near or in the forest areas (WUI) a chance at survival and a reasonable amount of safety. Listed below are some changes we may want to consider in managing our forests:

- Stop managing our forests as if they were solely for the purpose of timber farms and stop creating vertical lumber yards, especially surrounding those communities near or in the WUI.
- As a temporary stop-gap measure, create large fire breaks around our WUI communities. This would be labor and equipment-intensive and involve reducing all fuel levels (tree numbers, ladder fuels and ground fuels). These fire safe areas would have to be measured in miles and create natural areas where "crown fires," when the fire jumps from tree to tree, could no longer occur and natural or man-made ground fires could roam free to burn the underbrush without fear of becoming a raging inferno.
- To eventually save all of our state and national forests, it is essential to reduce tree numbers (and increase spacing) back to levels they were when the forests grew as nature intended. This must start immediately. Instead of trees being planted and growing literally inches apart as they are now, reducing their numbers to reflect the spacing of a natural forest is the only answer. Reducing the number of trees and increasing their spacing will drastically reduce the likelihood of crown fires and, at the same time, allow for healthier trees not competing for sunlight and water. It would reduce the devastating effects of bark beetles and other insects throughout our forests.
- Reduce ladder fuels.
- Reduce ground fuels.
- Once fuel levels are reduced, allow for natural or man-made fires to burn as nature intended (hopefully supervised).

• If huge timber farms are still needed to support our building industry, then create these heavily-wooded forests in secluded areas far from WUI areas, with limited access and large fire breaks surrounding them.

It's obvious that any measures to undo humankind's detrimental effects on our forests will likely take decades. After all, it took a hundred years of mismanagement for them to get to this horrendous condition. Nonetheless, we have to start somewhere, and the current solution is nothing more than a stop-gap measure, for our forests will continue to deteriorate at a rate we cannot contain, and global warming will surely not go away soon.

If these fuel reduction measures are implemented, then and only then will firefighters have a chance at returning to the days when wildfires were predictable, somewhat controllable and much less destructive. We need to think smarter, think for the future and not irresponsibly throw money at a problem, hoping it will go away.

Don't think that just because you live in an area that's not in a WUI that you are free from the danger or harmful effects of these fires! The toxic smoke and chemical water runoff will plague us all for many years to come. It's now in the air we breathe and will be in the groundwater and oceans for years to come.

So, where do we go from here? What can we do as individuals who are impacted or may be impacted by these devastating wildfires? First, if you agree with what I've written, spread the word! Post it on your favorite social media site, website, send it to your friends and neighbors or your local news station. Contact your elected officials, governor, insurance commissioner, state fire chief, or governing fire board and let them know your concern. Voice your opinion regarding the direction in which we should be headed!

Lastly, I'm no attorney, but the fact that our state and federal agencies have allowed this to happen under their management is nothing short of irresponsible and criminal. Perhaps a class action lawsuit is in order to help those who have suffered so much.

DKY: Land use planning plays a critical role in fire safety?

CAL FIRE's Land Use Planning Program Assists local governments (cities and counties) throughout California as they address the unreasonable risk from wildfire by planning for new development in the State Responsibility Areas and Very High Fire Hazard Severity Zones. <u>Welcome to Land Use Planning (ca.gov)</u>

The Wildfire Hazard Legislation Safety Element Planning and Zoning Law requires that cities and counties adopt a comprehensive general plan with various elements including a safety element for protection of the community from unreasonable risks associated with various hazards, including wildfires (CGC 65302.5). CAL FIRE has a long history of knowing the importance of planning and its importance to wildland fire safety and risk mitigation. Land use planning incorporates safety element requirements for State Responsibility Areas (SRA) and Very High Fire Hazard Severity Zones (VHFHS Zones); requires local general plan safety elements, upon the next revision of the housing element on or after January 1, 2014, to be reviewed and updated as necessary to address the risk of fire in the SRA and VHFHS Zones; requires each safety element update to take into account the most recent version of the Office of Planning and Research's "Fire Hazard Planning" document; and requires the Office of Planning and Research (OPR) to include a reference to the provisions of SB 1241 (Kehoe, 2012), as well as any other materials related to fire hazards or fire safety deemed appropriate for reference.

Fire Hazard Planning General Plan Technical Advice Series: Fire Hazard Planning: General Plan Technical Advice Series



A screenshot of the CAL FIRE Fire Hazard Severity Zone viewer centered over Angels Camp <u>https://frap.fire.ca.gov/mapping/gis-data/</u>

Stanford's Buzz Thompson on California's Wildfires, Water, Drought, and Climate Change

Barton Thompson / Stanford Law Society / September 1, 2021

(An excerpt of the article is below. To read the rest of the interview go here.)

California's wildfire season started early again this year and its destruction already for the record books with the Dixie fire currently the second largest in the state's history and growing while the Caldor fire has caused the evacuation of residents from the iconic <u>South</u> <u>Lake Tahoe</u> communities. Here, Stanford Law School's Professor Buzz Thompson, one of the country's leading water law experts, discusses California's wildfires, drought, water, and climate change <u>with Stanford Legal on SiriusXM</u> co-hosts Professors Joseph Bankman and Richard Thompson Ford. To listen to the full interview, go to Stanford Legal.

Bankman: Every year, those of us in the West are seeing smoke in our air from wildfires. And I think that's true from the Pacific Ocean to east of the Rockies right now, isn't it?

Thompson: Joe you're absolutely right. We have in the western United States gone from the situation where droughts occurred once every 10 or 20 years, to a situation where we never seem to leave a drought for very long before we enter into it again. We used to talk about fire seasons, nowadays we talk about fire years because they last all year long.

Ford: And right now, the Dixie fire has burned more than 750,000 acres [as of August 29], taking hundreds of homes and businesses with it, and it's only 35 percent contained. But the fires are connected to a larger phenomenon aren't they? I mean, we've also had record high temperatures in places like Portland and Seattle, where no one owns an air conditioner. Are these things linked in some way?

Thompson: They're definitely linked. The first thing I want to emphasize is that the Dixie fire is actually the second largest fire in the history of the state of California. The only fire that was bigger than that was the August Complex fire last year, which was over a million acres burned. And actually, last year in 2020, of the 10 largest wildfires in the history of the state of California, half of them—five—occurred in 2020 alone. And now you're seeing with the Dixie fire that again it is the second largest fire. It's, as you point out, already over 750,000 acres burned. It's 35 percent contained at this point, which means it could easily take over the top spot from last year's August Complex fire.

So, the first thing to recognize is that not only are things bad right now, but they are just far worse than what we have seen before. Second point is that the wildfires are part of just a much larger problem. And I would say that larger problem—you know, really, the ultimate problem— is climate change. And one of the things that we expect from climate change is that disastrous events—droughts, fires and the like—that may have occurred in the past, will occur more frequently in the future, and they will be even worse than they were. And that's what we're seeing with wild fires.

But climate change is also leading to another big problem, which is drought and lack of water. And that lack of water can also impact wildfires. In fact, it is a major cause of our wind fires.

Bankman: And Buzz, when we talk about drought, I mean, most of us think about how much rainfall we've had. And the last year we had, I think, only about half of what we usually get, if I'm right, depending on the location. The previous year was very light. We have had a

cycle of light year, after light year, after light year, light rainfall that is. Is that climate change-related? How do we understand the cycles?

Thompson: Excellent question Joe. And let me first correct you. That last year was a dry year, so we're in our second dry year. But if you actually go back to 2019, that was the wettest year in the state of California history. And if we had had an interview like this in 2019 I would have said that California is not in a state of drought, it's a state of whiplash. And it really is. It's a state where we can be in drought and then suddenly end up with floods, and then go back to droughts.

In the mid-19th century, there was a period of time when it rained in California and Oregon for about 45 days. And it rained so much that it flooded California. It created a lake in the middle of the central valley of California that was about 200 miles long and about 20 miles wide. It flooded the city of Sacramento. By that summer we were at the very beginning of what was known as the great civil war drought of 1862, which impacted the entire nation and was probably one of the worst droughts ever. So, it's not just droughts we have, but it's droughts with floods the following year. But this is absolutely what you would expect in the face of climate change. You're expecting extremes, more extremes, and then more extreme extremes. The drought situation that we have right now, however, is one that we will continue to face, again broken up occasionally by floods. And those droughts are a major cause of, again, the wildfires that we're seeing right now, as well as a large number of other problems.

Ford: So, not only has California historically been subject to lots of droughts and lots of flooding, but it's getting worse because of climate change. In this very dramatic way, I'm wondering Buzz, what's the relationship between all the fires that we're seeing and new settlements in parts of the state where people didn't used to live? Is that one of the factors as well contributing to the fires, or is it mainly climate change?

Thompson: I would separate the fire problem, Rich, into two parts. The first is that we are seeing larger fires today and longer wildfire seasons than we had in the past. That's the result of probably two or three things. The first is that we have historically been suppressing our fires. The answer to fires in the 20th century, and you know this from the old Smokey the Bear advertisements that you used to see on TV or in comic books, was to suppress the fires and try to prevent the fires. But that led to a huge buildup in the fuels. You know, the old dead trees. Very thick forest areas. So that's contributed to the fires being worse. In addition to that, we have climate change over the last several decades, and that climate change has also led to higher temperatures, more frequent and extreme droughts, and that's led to tree die-off. So that also increases the fuels that can readily catch fire and spread the fire once that fire begins. So those are two major causes of larger fires, and then longer wildfire seasons.

In addition to that though, the wildfires that we have tend to be more destructive of human settlements, right? So, a fire by itself obviously can be problematic, but our real concern today is entire towns that burn up and displacing people, and all of the smoke that we have to breathe on a regular basis these days. And a lot of that comes from the fact that we haven't really been doing our land use planning appropriate for the area that we live in. So, we tend to build our towns right in the forest. People love forests. I think it's great to spend my vacations in forested areas. But a lot of people want to live in and actually build their houses there. Those houses, by the way, are also fuel. But, more importantly, it leads to those people who get displaced. And because, again, we love to live in the west, where we have grand vistas, that means that, unfortunately, we can end up having to breathe the air when these wildfires begin.

Ford: There just are so many causes it's a little dispiriting.

Thompson: Well another way of looking at that is that we actually have a variety of ways of trying to deal with the problem. The one thing that's hard to deal with immediately is the climate change. As the recent report by the Intergovernmental Panel on Climate Change noted, climate change is baked into our future, no matter what we do right now in terms of reducing carbon. And we should reduce carbon. It's baked into our future. We're going to have it, so we can't do anything about that.

But we can eliminate a lot of that fuel that has built up by planning smaller prescribed burns in our forests. That's what our Indigenous population did before we came along and started suppressing the fires. We can also engage in better land use. We can create the defensible spaces within our forest communities. We can have people move when their homes burn down rather than just building exactly where the first are going to occur again.

Bankman: When people live in these areas, they've got to bring electricity in. And it seems like a lot of these fires start because there's a power line outage and we've got tens of thousands of miles of, I take it, exposed power lines around.

Keep reading the article by clicking here

'Our future might not look the same': wildfires threaten way of life in California's mountain towns

Megan Brown's family has stewarded several ranches in and along California's northern Sierra Nevada for six generations.

But in the last four years, the Browns have faced unprecedented challenges. Four different wildfires have touched the family's ranches in Oroville and Indian Valley. Smoke has killed some of their animals. Years of drought have ravaged their lands.

The disasters have threatened the family's livelihood, and forced them to question whether life in this region can continue as it has as the climate crisis intensifies.

"If I want our family to continue this lifestyle, it might not look the same as it always has," said Brown. "Trying to come to terms with that is really hard. I feel like I have to grieve and I don't know what the future's going to look like. I don't know what I should be doing."

Deadly fires have battered this part of northern California almost annually since 2018, destroying entire communities, killing dozens and covering the area in smoke for weeks at a time.

This year, the region is threatened by the Dixie fire, California's largest ever single wildfire, and the biggest blaze currently burning in the United States. The fire has already scorched more than 750,000 acres, burning across the mountain range and destroying much of the small hamlet of Greenville.

"I should have been a firefighter instead of a cowboy," said Brown on a recent afternoon as she glanced down at her phone for updates on the fire, which was raging around one of the ranches.

The fire risk in this part of California goes hand in hand with its abundance of natural beauty: river canyons with emerald green water, rolling foothills of the Sierra Nevada that grow thick in the spring with wildflowers, and vast swaths of trees. In some areas, such as the remote settlement of Concow, Ponderosa pines and Douglas firs cover the landscape – their branches sometimes arch over the roads like a canopy.

This stretch of land, from the Feather River in Oroville up to Lake Almanor, is particularly conducive to flames thanks in part to its steep canyons and seasonal winds. Severe drought has only exacerbated the fire risk.

There is no indication that these extreme wildfires will diminish in the coming years without dramatic steps to reintroduce fire into the landscape to reduce fuels in the forest and tackle the climate emergency.

"California is going to fundamentally change," said Marshall Burke, an associate professor in the department of earth system science at Stanford. "All evidence would suggest a business as usual scenario where we keep warming the climate and we don't rapidly scale up our efforts to get fuels out of the forest we're going to see a lot more wildfire and a lot more extreme wildfire. The science is clear on that." Sierra Nevada communities, like the <u>town of Greenville that burned</u> earlier this month, were already struggling with population decline, largely due to economic issues, said Jesse Keenan, a climate adaptation expert at Tulane University. The climate crisis will probably accelerate that decline.

The stretch of land from Oroville to Lake Almanor is particularly conducive to flames. Both Concow and Greenville were badly damaged in wildfires.

Insurers have become reluctant to cover homes and businesses in the region, raising questions about the ability to rebuild. Kimberly Price, a Greenville resident, said she lost insurance coverage for her home because she was in a fire zone, and her partner lost coverage on his store, which <u>burned down</u> in the Dixie fire, for the same reason.

"This is a problem in the state of California. If you can't get your house insured, people aren't going to move here," she said.

Intensifying wildfires also means the region will continue to see severe smoke lingering for weeks at a time, including in more densely populated cities such as Chico and Oroville. This week, air quality in the Lake Tahoe region ranked among the worst in the world because of smoke from the Caldor fire.

Smoke at the levels seen this year and last year are likely to be normal going forward, Burke said. "Instead of a few days or a week or two of smoke exposure it's going to look more like 2020 and 2021 where we have months of bad air," he said. "The science suggests 2020 is a historical anomaly looking backwards but looking forward it's not going to be."

That is particularly bad for vulnerable populations such as elderly people and those suffering from pre-existing health conditions, but the effects extend far beyond. A recent study from Stanford University, of which Burke is an author, found breathing wildfire smoke during pregnancy increases the risk of <u>premature birth</u>. Research also shows an increase in the rate of heart attacks, increased susceptibility to Covid-19 and decreased test scores among children exposed to smoke.

Wildfire smoke has killed several of Brown's animals in recent years, she said, and there's nothing she can do to protect them. "They all sound like they're pack-a-day smokers. And it's like, are they sick? No, they've been out in the smoke for a month."

At the same time, the drought brought a swarm of grasshoppers to the land and forced Brown to reduce her herd. "Our cattle herd is decimated. Our ranches are on fire. I don't have water."

One of the keys to combating the state's deadly megafires involves restoring fire's role in the landscape with prescribed burns, said Don Hankins, a pyrogeographer and Plains Miwok fire expert at California State University, Chico. Prescribed burns help clear fire-fueling vegetation, and can prevent larger, more extreme blazes.

"If people were able to practice the way indigenous cultures have done so since the beginning of time, that would be the way to change the way fires move with the landscape,"

he said. Prescribed burning creates less smoke than the megafires California is seeing today, Hankins said, and gives people a say in when and how smoke is dealt with.

Rather than abandoning these areas, people must learn to change the way they live with fire, Hankins said.

"There is no no-fire solution," he said. "Fire has to be part of this landscape. It has to be, so we should be the ones directing it."

To Concow residents Pete and Peggy Moak, prescribed burns are an important tool to live in a remote part of California prone to burning. The couple has survived several wildfires, each time staying behind in their home to battle the encroaching flames.

Their expansive property is pristinely manicured and watered – Pete, a former logger, manages the trees – with a large vegetable garden, a fire break and paths free of debris and vegetation so that if a fire does burn they can defend their home. This time of year, the risk is ever present.

"We've got a lot of PTSD," said Pete, whose family has lived in the area since the 19th century. "It's unexplainable how the tension is, but there's never a dull moment."

Fire will surely scorch this area again, the couple says, and living here requires constantly maintaining their land and the lots around them by felling dead trees, clearing needles and dead leaves and using prescribed burns. It also means they've all but stopped traveling in the summer and fall, so that they are here to save their home if necessary.

"It's hard to understand for folks that live in town and sell their house every five years and move somewhere else," Pete said.

"Pete and folks like us, we have deep roots in the land," Peggy said.

Brown, too, can't see herself leaving the land her family has tended for decades or the animals she loves. "That ranch, this land is my passion and I will die defending it. I've been here too long. I love it too much," she said.

But she wonders whether local elected officials will take the necessary steps to prevent these sorts of devastating fires and assist those affected by them.

"Either we're going to pull it together and we're going to be better and more resilient and able to protect ourselves. Or we're just going to be in this cycle of rebuilding and burning, rebuilding and burning," she said.

5 ways the Caldor fire shows the extreme new reality for California firefighting

Jessica Flores / SF Chronicle / September 1, 2021



As a group of trees begin to catch fire, Mark Salerno of Iron Mountain hand crew sets fire to create a fire break near Echo Summit Lodge near South Lake Tahoe, Calif. on Monday, Aug. 30, 2021. The threat of encroaching flames from the Caldor Fire set in place an evacuation order on the city of South Lake Tahoe. Brontë Wittpenn/The Chronicle

With stunning speed and intensity, the Caldor Fire has roared through El Dorado County and is now <u>threatening to spread into South Lake Tahoe</u>.

In less than three weeks since it ignited in mid-August, Caldor has <u>shot to No. 15</u> on the list of the California's largest-ever wildfires, measuring 204,390 acres as of Wednesday.

It's also one of only two blazes in California to ever cross a Sierra summit and burn down the other side. The Dixie Fire, the second-largest wildfire in state history currently burning across five counties, was the first blaze to do it.

Fire officials say Caldor has some things in common with other monster California wildfires, but crews are also encountering challenges in this year's fire season that they haven't seen before.

Here are five things to know about the Caldor Fire that are making it such a formidable foe.

Drought and heat are making fires like Caldor bigger

Experts say a combination of parched terrain and warmer conditions resulting from climate change has helped produce more aggressive, larger and "fuel-driven" blazes like Caldor this year. U.S. Forest Service researchers have found that <u>severe fires are accelerating each</u> <u>year</u> in the West, driven by climate conditions that are drying out fuels.

Other research has shown that the warming climate is making <u>high elevations more prone</u> to burning, with fires in the Sierra migrating upward more quickly than most in the West.

"The common question I normally get is: Do I think this is related to climate change? Regardless of the why or how we got to this place, is recognizing we are here," Cal Fire Assistant Chief Brian Newman, a fire behavior analyst working on the Dixie Fire, <u>recently</u> <u>told The Chronicle</u>. "The climate is warmer. It is drier. The result of that is longer fire seasons. The drier the fuels, fires are more resistant to control."

Caldor is burning in areas that haven't burned for decades

While experts say climate change has parched California's wildlands and primed them to burn, forest managers also say that fire suppression efforts over the decades have led to <u>vegetation growing far denser</u> in parts of the Sierra. A team from UC Berkeley and the Forest Service found in 2015 that the number of trees per acre had doubled or tripled in some places in the past century.

The buildup of vegetation over the decades has combined with a drier climate to create unstoppable fires like Caldor that would be easier to tame with less extreme weather conditions. Caldor's flames are feasting on old and dense trees in parts of the Sierra that haven't burned since before 1940, said Steve Volmer, Cal Fire's fire behavior manager.

Strong winds are causing Caldor to spread faster

Erratic and gusting winds — reaching up to 50 mph in recent days — are causing flames from the Caldor Fire to spread faster. Some fierce winds can even generate their own weather systems, such as pyrocumulus clouds, that could cause extreme fire behavior.

Fires are most active at night

In years past, California firefighters used the cooler, more humid nighttime hours to gain the upper hand against wildfires. Now, warmer and drier conditions combined with ample fuel have expanded the "burn window," when fires are most active during each 24-hour cycle — with fast and aggressive burns occurring at night.

The terrain is forcing firefighters to use different tactics

Cal Fire's public information officer Jason Hunter said Caldor's location in rugged, remote mountain areas has limited firefighting crews' ability to deploy some of the tools and tactics they normally count on.

"The terrain of the fire is incredibly steep, very hard to access. So some of our tools aren't being able to be utilized like they have in other fires," said Hunter.

In South Lake Tahoe on Tuesday, flames <u>crept closer to the Heavenly Mountain Resort</u> in the southeastern side of the lake. Rather than try to stop the fire's advance, firefighters instead worked to steer it away.

"We don't have any tools out there to stop the fire, so we're herding it away from structures," said Eric Schwab, Cal Fire's operations section chief.

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<u>Sierra Nevada</u> <u>Conservancy</u> <u>Funding</u> <u>Opportunities</u> <u>Newsletter</u> <u>for September/</u> <u>October</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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A lone doe in a burned ponderosa pine plantation (c) yosemitenorthphotography.com

FIRE By Emily Dickinson

Ashes denote that fire was; Respect the grayest pile For the departed creature's sake That hovered there awhile.

Fire exists the first in light, And then consolidates, — Only the chemist can disclose Into what carbonates.





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