## Sacramento-area air quality still affected by Caldor Fire. Wind shift could make things worse

### By Mila Jasper Sacramento Bee, Thursday, Sept. 2, 2021

Smoke from the Caldor Fire still isn't quite clearing in the Sacramento region, and particle levels range from moderate in areas to the west of the fire to unhealthy and even hazardous in the areas just south of Lake Tahoe.

Forecasts suggest air quality will worsen slightly Friday as well. Here's where air quality index readings are starting Thursday and how they're expected to change.

### SACRAMENTO COUNTY

Sacramento, Folsom, Arden Arcade and Elk Grove are all reaching AQI levels in the high 60s Thursday morning, according to AirNow. While highs are forecast to stay in the moderate range Thursday, easterly winds on Friday are forecast to bring in more wildfire smoke into eastern Sacramento County. That may raise readings to the unhealthy levels for sensitive groups.

### EL DORADO COUNTY

In El Dorado County, particularly in the South Lake Tahoe area, the air remains dangerously smoke-filled. One reading for South Lake Tahoe shows a level above 500, which is hazardous to breathe. In Tahoma, air is still unhealthy, with a readings of close to 160 on Thursday morning. Placerville AQI readings are less elevated, but they remain in the moderate-to-unhealthy ranges.

According to forecasts, El Dorado County will see overall AQI readings in the unhealthy range Thursday, but on Friday those levels may reach the "very unhealthy" range.

### PLACER COUNTY

In Placer, Tahoe City, Auburn, Roseville and Lincoln are observing moderate air quality Thursday, but forecasts suggest AQI will dip into the unhealthy zone later Thursday and into Friday.

### Here are steps you can take to make the air quality cleaner during a California fire By Hanh Truong

Sacramento Bee and Merced Sun-Star, Thursday, Sept. 2, 2021

Residents of El Dorado and Placer counties, as well as surrounding areas throughout Northern California are experiencing air quality readings in the unhealthy zone, as the Caldor Fire continues to blaze through the Lake Tahoe region.

While wind gusts will inevitably blow smoke, ashes and dust into the air, everyone can still take steps to reduce pollution during a wildfire. The Sacramento Metropolitan Air Quality Management District and California Air Resources Board (CARB) highlight day-to-day activities and things that people should consider avoiding to help prevent adding particulate matter into the air.

### AVOID DRIVING

Sam Pournazeri, Mobile Source Analysis Branch Chief at CARB, said people should drive less during wildfire events. He said passenger vehicles are significant contributors to emissions, which can further worsen local air quality.

Additionally, driving high speeds down dirt roads can increase the amount of dust in the air, according to a flier from the management district.

### LANDSCAPING IMPACTS AIR QUALITY

Lawn and gardening equipment can produce pollutants, similar to cars.

Pournazeri equates operating a leaf blower for about one hour to driving a passenger vehicle for about 1,100 miles. When operating these tools during a wildfire, Pournazeri said it "not only can contribute to

more emissions, but also dust and PM 2.5," which are small inhalable particles that can cause health issues.

### DIESEL TRUCKS EMIT POLLUTION

When burned, diesel fuel from trucks can emit harmful pollutants, such as hydrocarbons and carbon monoxide, as reported by the U.S. Environmental Protection Agency. It also produces oxides of nitrogen — a gas mixture responsible for the formation of smog.

Pournazeri said people should consider avoiding one-day deliveries for their online purchases, as most delivery trucks are powered by diesel. Doing so will "reduce the travel of these delivery trucks in neighborhoods" and prevent the local air quality from increasing.

### FIRE PITS, RECREATIONAL BURNING

Cooking outdoors and using fireplaces and wood-burning stoves will increase the amount of smoke and particulate matter in the air. Burning dry wood in outdoor fire pits is also cautioned by the management district during events of high air pollution and wildfires because it can produce "harmful smoke."

### Lake Tahoe wildfire seemed controllable, then it wasn't

By Don Thompson Associated Press Bakersfield Californian, Thursday, Sept. 2, 2021

SACRAMENTO, Calif. (AP) — Just last week, managers overseeing the fight against the massive wildfire scorching California's Lake Tahoe region thought they could have it contained by the start of this week.

Instead, the Caldor Fire crested the Sierra Nevada on Monday, forcing the unprecedented evacuation of all 22,000 residents of South Lake Tahoe and tens of thousands of tourists who would otherwise be winding down their summers by the alpine lake straddling the California-Nevada state line.

That drastic move might never have been needed if authorities could have thrown more firefighters at the blaze when it was small. That didn't happen because the <u>Dixie Fire</u> was simultaneously raging across the mountain range 100 miles (161 kilometers) to the north, on the way to becoming the second-largest wildfire in California history.

"I do think the Dixie and the way that it's burned and its magnitude did impact the early response to the Caldor," said Scott Stephens, a professor of wildland fire science at the University of California, Berkeley. "It really drew resources down so much that the Caldor got very few for the first couple days."

By the time Caldor approached Lake Tahoe two weeks later, there were 4,000 fire personnel, dozens of water-dropping aircraft and hundreds of fire engines and bulldozers.

But all that manpower and equipment were overmatched by tinder dry conditions, whipping downslope winds and an overgrown forest ripe to burn, a half-dozen fire experts said. And with resources already stretched across the West and internationally, they said the long-term situation will only worsen as exhausted firefighters battle bigger blazes that start earlier and last longer.

"Mother Nature is calling the cards on our hubris that we can conquer and control wildfires during these extreme conditions," said Timothy Ingalsbee, a former federal firefighter who now heads Oregonbased <u>Firefighters United for Safety, Ethics and Ecology</u>, which advocates for working with wildfires instead of reflexively putting them out.

The Caldor Fire ignited from an unknown cause on Aug. 14 in the steep wooded foothills east of California's capital city of Sacramento. In the first few days, about 240 firefighters were dispatched, compared to the 6,550 firefighters battling the Dixie Fire at the time.

It wasn't until four days later that Cal Fire Chief Thom Porter said fire managers diverted 30 fire engines from the Dixie Fire to the Caldor Fire. Overnight, the number of engines and firefighters nearly tripled. But by then the fire had already burned through Grizzly Flats, destroying dozens of homes in the town of about 1,200 people.

"We are moving resources around as needed, sharing among the incidents," Porter told reporters on Aug. 18. But he acknowledged that "we are having a very difficult time" because resources were so stretched across the West.

Officials couldn't say how many firefighters would have been ideal and when, but Cal Fire was candid that there initially was a shortage, said Ken Pimlott, who retired as the agency's director in 2018 and lives a few miles from the fire's origin.

"Early on, this was not the highest priority because there were other threats on other fires that were higher," Pimlott said.

As the fire marched toward Lake Tahoe and its crystal clear waters that attract visitors from around the world, it destroyed hundreds of homes and other structures and left a firefighter with serious burns.

Still, officials predicted as recently as last weekend that they could hold the fire outside the Lake Tahoe Basin. They feverishly expanded fire lines to take advantage of the barren granite that caps the mountain chain which has formed an impenetrable barrier to flames in the past. This time, their optimism merely lulled residents into a false sense of security, leaving many scrambling to pack their lives in bags when evacuation orders came Monday.

Chad Hanson of the John Muir Project said fire managers were foolish to think they could stop the flames based on the expected winds.

"It is 100% predictable that under those conditions the fire will continue to move in that direction. So it's hard for me to imagine why anyone would conclude otherwise," said Hanson, a frequent critic of forest management efforts.

Firefighters had thought they made good progress during favorable conditions going into the weekend, said Jason Hunter, a spokesman for Caldor Fire managers. But then came the changing weather pattern with "incredibly gusty winds" that pushed burning embers over the crest.

"The weather, is what it boils down to, is what changed," Hunter said. Containment projections are a "constantly moving target" based on evolving conditions, he said. The Caldor Fire's containment projection has since been pushed back to Sept. 13.

Experts agreed conditions are grim because drought has been worsened by consecutive climate changedriven heat waves that sap humidity before dry winds whip flames and ferry embers sometimes a mile or more ahead of the main blaze.

"These embers are leapfrogging over fire lines and rivers, ridges and roads and other things that typically stop wildfire spread, and so you have these fires kind of hopscotching across the landscape," Ingalsbee said.

Firefighters were outflanked by a shift in localized winds that funneled flames into the Tahoe basin, said John Battles, a University of California, Berkeley professor of forest ecology.

Fire managers have become adept at projecting the weather and how fuels will burn, but still lack the ability to predict localized winds at fires — some caused by the fires themselves — with 10 different computer models offering as many conflicting outcomes, he said.

"They're trying to predict winds at a mountain pass. That is the most complex topography we have," Battles said. "That's why you have this feeling like they didn't know what they're doing."

He added: "When you're fighting a fire the size of the Caldor, you make your best guess."

The Caldor Fire is just the second in modern history to have traversed the Sierra. The first was the Dixie Fire that started in mid-July near the town of Paradise and has grown to 1,300 square miles (3,367 square kilometers), more than four times as large as Caldor.

Such monster fires typically come later in the year when conditions are their driest but also when cooler days, rising humidity and ultimately rain and snow have aided the firefight, said Char Miller, a professor at Pomona College who has written extensively about wildfires.

But California has received far less precipitation than normal the last two years and there's no guarantee more will arrive this fall to aid firefighters. "This may burn through October," Miller said.

Yet the fire experts said the biggest challenge is neither drought nor climate change, but the overgrown forests that could actually benefit from fire — so long as it is set or allowed to burn at a low intensity during the spring or fall before it can explode out of control.

Firefighters still quickly contain about 95% of fires, but it's the ones that escape that do the major damage, Pimlott said. Once fires spread, firefighters may need to start prioritizing communities that can be protected while letting the flames burn around them, he said.

"It's a hard pill to swallow for all of us in the firefighting community, because we want to put these fires to bed," he said. "We just may not be able to do that on every one of these fires, because of the conditions we're facing."

### Changing winds provide hope in California wildfire battle

By Sam Metz, Janie Har and Chris Weber Bakersfield Californian, Thursday, Sept. 2, 2021

SOUTH LAKE TAHOE, Calif. (AP) — Better weather on Thursday helped the battle against a huge California forest fire threatening communities around Lake Tahoe, but commanders warned firefighters to keep their guard up against continuing dangers.

Strong winds that drove the Caldor Fire east through high elevations of the Sierra Nevada for days had faded after forcing thousands of people to flee, but very localized gusts were likely and the forest remained extremely dry even though humidity levels had improved slightly, officials said at a morning briefing.

"We lost the winds aloft," incident meteorologist Jim Dudley said. "It's a good day today to not have gusty winds up on the ridges. What we are going to have are terrain-driven winds" that happen as the sun heats the ground.

The Caldor Fire covered more than 328 square miles (849 square kilometers) and was 25% contained early Thursday. Its northeast tip was south of the city of South Lake Tahoe and nearing the California-Nevada state line.

Fire crews from around the country were joining the fight against the fire, which was just 23% contained after destroying at least 700 homes and other buildings since it broke out on Aug. 14.

Climate change has made the West much warmer and drier over the past 30 years and will continue to make weather more extreme and wildfires more frequent, destructive and unpredictable, scientists have said.

The Caldor Fire, named after the road where it started, threatened at least 33,000 more homes and structures. On Wednesday, firefighters were ferried by boat to protect cabins at Echo Lake, a few miles south of Tahoe.

Heavenly Mountain Resort, Tahoe's largest ski area, was being used as a staging area by firefighters. The resort also brought out its big guns — snow-making devices that were being used to hose down buildings.

One spur of the fire was about 3 miles (5 kilometers) south of the recently evacuated city of South Lake Tahoe and was heading northeast toward the California-Nevada state line, authorities said.

Crews worked to keep flames away from urban communities, where houses are close together and shopping centers, hotels and other structures would provide even more fuel for the fire.

Thick smoke has enveloped South Lake Tahoe, which is all but deserted at a time when it would normally be swarming with tourists.

After casinos and stores closed on the Nevada side of Lake Tahoe on Wednesday morning, evacuation holdouts who didn't have cars lined up outside the Montbleu resort and casino in Stateline, waiting for a bus to take them to Reno.

Kevin O'Connell, a disabled plumberSouth Lake Tahoe resident wearing ski goggles to protect his eyes from blowing ash, had planned on staying and riding out the evacuation order in Stateline but found out that stores had closed.

"I called 911 and told them I need to get out of here — I have no food, no cigarettes and I'm disabled. And within a couple hours, the police came and picked me up in my apartment and brought me here," he said.

President Joe Biden on Wednesday issued a federal emergency declaration and ordered federal assistance to supplement state and local resources for firefighting efforts and relief for residents in four counties affected by the fire.

More than 15,000 firefighters, with help from out-of-state crews, were battling dozens of California blazes, including another monstrous blaze in the same area.

Maj. Gen. David Baldwin, adjutant general of California, said the state has also deployed more than 1,000 National Guard soldiers, airmen and sailors and that 10 other states have sent around 1,250 additional Guard members.

Many of the guard units are providing air support, including 23 aircraft, some equipped with water buckets and others with systems that can drop fire retardant.

About 65 miles (105 kilometers) north of the Lake Tahoe-area blaze, the Dixie Fire is the second-largest wildfire in state history at about 1,320 square miles (3,415 square kilometers). The weeks-old fire prompted new evacuation orders and warnings this week and was just over 50% contained.

### Weather slows California wildfire, but flames keep moving

By Sam Metz, Janie Har and John Antczak - Associated Press/Report for America Bakersfield Californian, Wednesday, Sept. 1, 2021

SOUTH LAKE TAHOE, Calif. (AP) — Favorable weather helped firefighters trying to save communities on the south end of Lake Tahoe from an approaching wildfire, but officials warned Wednesday that stiff winds and dry conditions mean that homes in the California-Nevada alpine region are still in danger.

"Finally some good news on the weather side of things here on this fire," Jim Dudley, a meteorologist assigned to the fire, said at an evening briefing. Winds were expected to calm significantly over the next several days, he said, but risks remain with extremely low humidity levels.

The Caldor Fire remained roughly 3 miles (5 kilometers) south of the recently evacuated city of South Lake Tahoe, moving northeast toward the California-Nevada state line, said Henry Herrera, a battalion chief for the agency, which is also known as Cal Fire.

Crews tried desperately to keep flames away from urban communities, where houses are close together and shopping centers, hotels and other structures would provide even more fuel for a fire that so far has been feeding on trees, grasses and scattered homes and cabins.

"We're still not out of the woods. The fire is still moving," Herrera said.

The blaze has been burning toward Lake Tahoe from the southwest along California Highway 50, climbing over a Sierra Nevada summit and descending into the Tahoe Basin.

Thick smoke has enveloped the city of South Lake Tahoe, which is all but deserted at a time when it would normally be swarming with tourists. On Monday, roughly 22,000 residents and thousands of others from neighboring communities jammed the city's main artery for hours after they were ordered to leave.

South Lake Tahoe city officials said only a handful of residents defied the evacuation order.

Meanwhile, officials prepared for the next possible phase of the firefight.

As evacuation holdouts and private firefighters draw from fire hydrants around the city, the South Tahoe Public Utility District asked people to turn off hoses, irrigation systems and sprinklers to ensure that wells can pump at full capacity. That means "the minute a firefighter hooks into a hydrant that they are getting full pressure, and as much water as possible is coming out," said Shelly Thomsen, spokeswoman for the utility.

In the city, white pick-up rentals dropped off private firefighters dispatched by insurance companies to water around homes and clean decks using water from public hydrants. Gas stations advertised prices at \$5 per gallon (per 3.8 liters). Motels had "no vacancy" signs.

As flames moved toward the Heavenly ski resort, officials turned on the mountain's snow-making machines to increase humidity and slow down any flames.

To his wife's dismay, John Rhodes, 60, stuck around to defend the couple's neighborhood in an unincorporated area south of South Lake Tahoe that burned in the 2007 Angora Fire.

Rhodes and his neighbors, including several off-duty firefighters from other California agencies, wrapped homes in hoses and ran sprinklers to create a perimeter around the neighborhood to supplement official firefighting work nearby. Their water use led to a call from the utility district, Rhodes said.

As a rookie firefighter, he admitted to having butterflies.

"I was anxious about how I would stand up near the hot spot. These guys are trying to get me all coached," Rhodes said, pointing toward his firefighter friends, who declined to talk to a reporter.

On Wednesday, President Joe Biden issued a federal emergency declaration and ordered federal assistance to supplement state and local resources for firefighting efforts and relief for residents in four counties affected by the fire.

The Caldor Fire not only emptied out South Lake Tahoe, but parts of neighboring Stateline, Nevada.

Nevada casino regulators said gambling was suspended at the Hard Rock Lake Tahoe, Montbleu Resort, Harrah's and Harvey's Lake Tahoe, where officials said their casinos were closed to the public but their hotels were housing firefighters and displaced employees.

The fire has destroyed at least 700 homes and other structures and scorched nearly 320 square miles (827 square kilometers) since breaking out Aug. 14. It still threatens at least 33,000 more homes and structures. It was 20% contained on Wednesday.

More than 15,000 firefighters, with help from out-of-state crews, were battling dozens of California blazes, including another monstrous blaze in the same area.

Maj. Gen. David Baldwin, adjutant general of California, said the state has also deployed more than 1,000 National Guard soldiers, airmen and sailors and 10 other states have sent around 1,250 additional Guard members. Many of those are providing air support, including 23 aircraft, some equipped with water buckets, others with systems that can drop fire retardant.

Baldwin described the working conditions as "very tough," especially for the hand crews who cut through dense brush using shovels and picks. "They are operating in very hazardous areas."

A firefighter injured while battling the Caldor Fire last weekend was expected to be hospitalized for a month after undergoing skin grafting surgery. Richard Gerety III of Patterson, California, suffered third-degree burns over 20% of his body, the Modesto Bee reported.

About 65 miles (105 kilometers) north of the Lake Tahoe-area blaze, the Dixie Fire is the second-largest wildfire in state history at 1,320 square miles (3,415 square kilometers). The weeks-old fire prompted new evacuation orders and warnings this week.

Climate change has made the West much warmer and drier in the past 30 years and will continue to make weather more extreme and wildfires more frequent, destructive and unpredictable, scientists say.

Tom O'Connell and his wife, Linda, awaited the fate of their home in nearby Meyers while anchored on their sailboat in Ventura Harbor. The two-bedroom they've owned for 40 years survived the Angora Fire that destroyed about 250 houses in 2007. They didn't know if they'd be lucky again.

"You worry about the things you can have some control over," O'Connell said. "We've no control over this."

Laura Forvilly had planned to stay as long as possible in her Stateline condominium, but her adult children persuaded her to pack up Tuesday and leave in advance of an evacuation order. She arrived at her sister's house in nearby Reno, where the air was clear and skies blue.

She's not worried about her home or business running cruises on the lake. But she's surprised by how close the fire is.

"I'm so sad our beautiful Tahoe is going through this," Forvilly said. "It's hard to believe it's actually happening this close to where we all live and work."

## Strike team fighting Caldor Fire pulled because of COVID outbreak, prompting warning

By Vandana Ravikumar

Modesto Bee & Sacramento Bee, Wednesday, Sept. 1, 2021

A coronavirus outbreak has left the California Department of Forestry and Fire Protection down one strike team as the Caldor Fire approaches South Lake Tahoe.

Cal Fire incident commander Jeff Veik warned other firefighters to follow the agency's COVID-19 protocols during an operations briefing Tuesday morning, SFGATE reported.

"We lost a whole strike team of crews yesterday, we lost a finance section chief due to [being] COVID positive, so understand, do not come to this briefing without a mask on," Veik said. "I understand your views are important and I will always respect that as one of our leaders, but you are here at a briefing."

He added, according to Fox40, that "one more firefighter getting sick could take out our actions to protect the communities and the people that we're here to serve. What I'm saying is we need every one of you to stay healthy."

Henry Herrera, a public information officer for Cal Fire, told SFGATE that a "strike team" is made up of one leader, five fire engines and three firefighters assigned to each vehicle. The 16 firefighters will have to quarantine for two weeks. This is the first outbreak associated with the Caldor Fire — no other crews have been impacted by contact tracing, Herrera said.

It's unknown where the strike team was located, how many cases of COVID-19 the team had, or whether members of the team were vaccinated or not. Cal Fire did not immediately respond to McClatchy News' request for comment.

According to Cal Fire, there are 4,224 firefighters currently combating the fire, meaning that the loss of the strike team hasn't significantly dampened efforts to contain the blaze. But the agency warns that future COVID-19 outbreaks could create bigger staffing issues at a critical time — which is why face masks are so important.

"Do not give one of the team members — or the folks working on this incident or any of you — a hard time about a mask," Veik said, according to SFGate. "They're doing their job. If you're that upset about wearing a mask, come talk to me please or one of the [incident commanders]."

"Our results showed a substantial increase in the COVID-19 positivity rate in Reno during a time when we were affected by heavy wildfire smoke from California wildfires," Daniel Kiser, a co-lead author of the study published in the Journal of Exposure Science and Environmental Epidemiology, told The Sacramento Bee. "This is important to be aware of as we are already confronting heavy wildfire smoke ... with COVID-19 cases again rising in Nevada and other parts of the western U.S."

The findings seem to substantiate growing concerns among physicians and scientists about the impact of climate change on cardiopulmonary health, according to Kent Pinkerton, an expert on air pollution at the University of California, Davis.

"Hotter temperatures, climate change, wildfires, air pollution, all seem to have some association with a greater risk of COVID-19 cases," Pinkerton told The Sacramento Bee. "If you're susceptible to air pollution, such as particulate matter, it could be that you just have a situation where you'll be also much more susceptible to viral particles that might be in the air that you're breathing."

The CDC also warns that wildfire smoke can irritate the lungs, cause inflammation, affect the immune system and make people more susceptible to lung infections, including those caused by COVID-19.

The agency has a page on its website with information on how to prepare for both situations at once, including guidelines on how to tell the difference between symptoms of smoke exposure and COVID-19 and what kind of masks will offer protection from wildfire smoke.

### Firefighters report progress against flames near Lake Tahoe

By Janie Har and John Antczak - Associated Press/Report For America, Sam Metz The Business Journal, Wednesday, Sept. 1, 2021

(AP) — Firefighters reported progress Wednesday in the battle to save communities on the south end of Lake Tahoe from an approaching forest fire after the stiff winds they had feared failed to materialize in the California-Nevada alpine region.

"We lucked out a little bit yesterday with some of the winds that didn't come up quite as hard as we expected them to," Tim Ernst, an operations section chief, told firefighters in a morning briefing.

An inversion layer, a cap of warm air over cooler air, then developed in the early morning hours "that put a real damper on things, slowed a lot of growth," Ernst said. "So a lot of opportunity to make a lot of progress last night."

The Caldor Fire has been burning toward Lake Tahoe from the southwest along California Highway 50, climbing over a high-elevation Sierra Nevada summit and descending into the Tahoe Basin.

"We were fortunate the fire did not make as strong a push into Tahoe as it did the previous day," Ernst said.

Despite the positive developments, firefighters were warned that critical weather conditions remained and they would likely face gusty, swirling winds all day.

Thick smoke from the Caldor Fire has enveloped the city of South Lake Tahoe, which is all but deserted at a time when it would normally be swarming with tourists. On Monday, roughly 22,000 residents jammed the city's main artery for hours after they were ordered to leave.

South Lake Tahoe city officials said only a handful of residents defied Monday's evacuation order. But nearly everyone was monitoring the winds, which could determine whether flames bypass the city.

Tom O'Connell and his wife, Linda, awaited the fate of their home while anchored on their sailboat in Ventura Harbor. The two-bedroom they've owned for 40 years survived the Angora Fire that destroyed about 250 houses in 2007. They didn't know if they'd be lucky again.

"You worry about the things you can have some control over," O'Connell said. "We've no control over this."

Pushed by strong winds, the Caldor Fire has crossed two major highways and swept down slopes into the Tahoe Basin, where firefighters working in steep terrain were protecting remote cabins. The fire has destroyed at least 700 homes and other structures, but officials say it's too early for an accurate assessment of the destruction.

The fire, which is threatening at least 33,000 more homes and structures, has scorched nearly 320 square miles (827 square kilometers) since breaking out Aug. 14. It was 20% contained.

The Lake Tahoe area attracts 15 million visitors every year and is beloved by locals and international jetsetters alike as a recreational paradise offering beaches, water sports, hiking, ski resorts and golfing.

South Lake Tahoe, which borders a portion of the famous lake, bustles with outdoor activities while just across the state border in Stateline, Nevada tourists can gamble at major casinos.

As flames moved toward the Heavenly ski resort on the California-Nevada border, officials turned on the mountain's snow-making machines to increase humidity and slow down any flames.

To his wife's dismay, John Rhodes, 60, did not evacuate but stuck around to defend the couple's neighborhood in an unincorporated area south of South Lake Tahoe that burned in the 2007 fire.

Rhodes and his neighbors, including several off-duty firefighters from other California agencies, wrapped homes in hoses and ran sprinklers to create a perimeter around the neighborhood to supplement official firefighting work nearby.

As a rookie firefighter, he admitted to butterflies.

"I was anxious about how I would stand up near the hot spot. These guys are trying to get me all coached," Rhodes said, pointing toward his firefighter friends, who declined to talk to a reporter.

The Caldor Fire not only emptied out South Lake Tahoe, but parts of neighboring Stateline, Nevada.

Casinos, however, were excluded from the order and as of Wednesday, were still open. Their hotel rooms were housing evacuees, fire crews and other emergency personnel.

More than 15,000 firefighters, with help from out-of-state crews, were battling dozens of California blazes, including another monstrous blaze in the same area.

The Dixie Fire is the second-largest wildfire in state history at 1,320 square miles (3,415 square kilometers). The weeks-old fire was burning about 65 miles (105 kilometers) north of the Lake Tahoe-area blaze and prompted new evacuation orders and warnings this week.

Climate change has made the West much warmer and drier in the past 30 years and will continue to make weather more extreme and wildfires more frequent, destructive and unpredictable, scientists say. Threat of fire is so widespread that the U.S. Forest Service announced this week that all national forests in California would be closed until Sept. 17.

A firefighter injured while battling the Caldor Fire last weekend was expected to be hospitalized for a month after undergoing skin grafting surgery. Richard Gerety III of Patterson, California, suffered third-degree burns over 20% of his body, the Modesto Bee reported.

Laura Forvilly had planned to stay as long as possible in her Stateline condominium, but her adult children persuaded her to pack up Tuesday and leave in advance of an evacuation order.

Forvilly, who runs boat cruises on the lake, said she took a carload of "all the wrong things — clothes, of course," as well as keepsake photos, belongings that can't be replaced and her three dogs. She arrived at her sister's house in nearby Reno, where the air was clear and blue.

She's not worried about her yacht or home. But she's surprised at how close the fire is.

"I'm so sad our beautiful Tahoe is going through this," Forvilly said. "It's hard to believe it's actually happening this close to where we all live and work."

### Firefighters nationwide help to subdue French Fire

By Ishani Desai Bakersfield Californian, Wednesday, Sept. 1, 2021

The French Fire stood at 25,782 acres and was 43 percent contained as of Wednesday night, according to the California Incident Management Team 12.

The areas around Dutch Flat, Isabella Highlands, French Flat, Keysville and Wofford Heights have been contained; strong windy conditions persist in the area, but the fire has not advanced despite the weather, said John Ownings, the operations section chief of the incident management team.

Crews have successfully held the fire around the Basket Pass Road. Steep terrain and thick vegetation around Cedar Creek and White Mill Road makes dangerous conditions for firefighters. This area proves to be the most difficult to contain, but the fire hasn't made significant advances, Owings said.

Crews made progress taming the wildfire in the areas around Black Mount Saddle and Black Mount Peak, but complete containment will not happen soon, Owings said. Firefighters have also encountered steep and rocky terrain, along with dead standing trees in those regions, which accounts for slow progress, he added.

Evacuation orders for the Alta Sierra and Shirley Meadows community will be lifted once fire personnel ensure no dead standing trees remain. Those trees can fall without a warning and therefore specialized teams are removing any hazards before allowing residents to return, Owings said.

Kern County Fire Department Division Chief Bill Steers said the firefighters' "number one priority" is to allow individuals back into their properties. Steers said they weigh considerations such as the threat of reignition around the area, the presence of hazard trees, how many firefighters must remain to secure the region and the road conditions before removing evacuation warnings and orders.

Forest Service Agency Administrator Al Watson said firefighters nationwide — from Alaska, Montana, Georgia, Florida and other states — have arrived to battle the blaze. Around 1,500 firefighters tackle the blaze, according to the incident management team.

Watson added that the national forests across California closed because there are not enough firefighters to subdue the flames raging all across the state. This move will hopefully decrease "fire starts" and not further strain resources struggling to put out the flames, he added. The U.S. National Forest will open its lands Sept. 17.

Chris Stewart, from Southern California Edison, said high voltage lines powering residences within Alta Sierra are down and the lines should be repaired in a week. For Shirley Meadows and the Slick Rock area, the power will be restored in three weeks to a month. These power lines were attached to trees, which burned down, he said.

The Red Cross shelter at Woodrow Wallace Elementary School shifted its status to standby as of 3 p.m. Wednesday; residents returned home or found other accommodations, said Taylor Poisall, the spokeswoman for the Red Cross.

Evacuation orders include: Keysville, Shirley Meadows, Alta Sierra, Slick Rock, Wagy Flat and Black Gulch. Evacuation warnings for parts of Wofford Heights, Isabella Highlands, Hungry Gulch and Dutch Flat were lifted Wednesday morning.

### Caldor Fire threatens Heavenly, Kirkwood ski resorts, but there's good news

By Amy Graff, Eric Ting, Dianne de Guzman, Michelle Robertson, Joshua Bote SFGATE, Wednesday, Sept. 1, 2021

**LATEST, Sept. 1, 8:15 a.m**. The Caldor Fire is threatening major ski resorts Heavenly and Kirkwood and is just three miles away from South Lake Tahoe, but Cal Fire officials said crews "lucked out" as overnight winds were not as bad as anticipated.

"We lucked out a little bit yesterday with some of the winds that didn't come up as hard as we expected them to, although we did have some ridge winds last night, probably 20-30 miles per hour," Tim Ernst, Cal Fire operations section chief, said at a Wednesday morning briefing. "For the most part, we had a nice inversion come in, probably around midnight or 1 in the morning, that put a damper on things and slowed a lot of growth. So a lot of opportunity to make some progress last night."

Ernst added that because the winds were not as bad as they could have been, firefighters feel "really good" about holding the line on the northeastern front close to South Lake Tahoe.

"We're fortunate the fire did not make as strong a push into Tahoe as the previous day," he said.

While pointing at the evacuated South Lake Tahoe zone on a map, Ernst said, "This whole community is looking really good right now."

Ernst said that one of Cal Fire's "biggest concerns" was the Kirkwood area — which includes the popular Kirkwood Mountain Resort — and that keeping the fire out of the resort will be one of the biggest priorities Wednesday.

**Sept. 1, 6:30 a.m.** California's fierce Caldor Fire tore through drought-stricken vegetation as firefighters scrambled Wednesday to prevent flames from reaching the famed Heavenly Mountain Resort at the southern tip of Lake Tahoe after evacuation orders were expanded to neighboring Nevada.

Cal Fire set up a base camp at the ski resort to keep an eye on the blaze as firefighters battled into the night to save homes and structures in the Lake Tahoe Basin.

Through the first half of the week, the resort's snow cannons blasted water across the parched landscape to protect it from flames in the surrounding area. The move follows a similar strategy conducted by Sierraat-Tahoe, which successfully survived two nights of fire scares with only minor damage.

Thick smoke from the Caldor Fire enveloped the city of South Lake Tahoe, which was all but deserted during a summer week usually bustling with tourists.

The National Weather Service warned that critical weather conditions through Wednesday could include extremely low humidity, dry fuel and gusts up to 30 mph. A red-flag warning is in effect for the region until 11 p.m. Wednesday, which is a crucial day in the firefight. Gusts of 25 mph to 30 mph are forecast with even stronger winds at higher elevations.

"(Wednesday) is going to be another bad weather day, but it will be the last one of those," said National Weather Service meteorologist Jim Dudley at a Tuesday evening press conference. "There is a light at the end of this tunnel."

Dudley said by Thursday, winds should lighten considerably, which will improve firefighting conditions and hopefully decrease the fire's footprint.

"We got to get through tonight and tomorrow," Dudley stressed.

Stephen Vollmer, a fire behavior analyst for the California Department of Forestry and Fire Protection, said embers were being cast up to a mile out in front of the fire, creating new ignition points, including in some parts of the dense forest that haven't burned since 1940 or before.

The blaze was 3 miles outside of South Lake Tahoe by Tuesday afternoon, Cal Fire Battalion Chief Henry Herrera told KGO-TV.

The Caldor Fire started on Aug. 14 near Grizzly Flats, and crews thought they would gain an upper hand on the fire on Friday of last week. Then came a windier-than-expected weekend, when containment on the fire dropped from 19% to 13%.

The fire was up to 20% containment by Wednesday morning and has burned 204,390 acres, Cal Fire said. There are 491 single-home residences that have been destroyed and 12 commercial properties. No fatalities and five injuries have occurred.

Firefighters were largely successful on Tuesday in defending residences in the Christmas Valley and Meyers communities, lighting backfires and cutting down smoldering trees to create defensible space around homes. They kept the fire running parallel to Pioneer Trail, as winds continued to push the blaze north in the direction of Heavenly and the tourist hotspots of South Lake Tahoe beyond it.

The fire has also so far spared Sierra-at-Tahoe and Kirkwood. But as night fell Tuesday, flames could be seen for the first time illuminating the peaks around the Heavenly Mountain Resort.

A live wildfire camera aimed at Heavenly can be seen here.

Cal Fire announced a series of new evacuation orders for Alpine County on Tuesday night.

The new evacuation orders, meaning there is a direct threat to life, were called for Highway 88 at Forestdale Road; west of Forestdale Road and south to the Pacific Crest Trail crossing; west of the Pacific Crest Trail to the Summit City Canyon Trail; west of Summit City Canyon Trail; and south to El Dorado/Stanislaus National Forest; west of the El Dorado/Stanislaus National Forest line to the Alpine and Amador county line; north of Highway 88, along the Alpine/El Dorado county line and Armstrong Summit to the Nevada State Line; west of the Nevada state line to Luther Creek; northwest of Luther Creek to Woodfords; and north of Highway 83 and Highway 89 to the Alpine/El Dorado County line.

A number of new evacuations orders were also issued for parts of Douglas County in Nevada, just over the state line from South Lake Tahoe, Tuesday afternoon.

Cal Fire announced that Upper Kingsbury (both north and south), Central Kingsbury, Lower Kingsbury, the Round Hill region and roads including Lower Elks Point, Lake Village and Lower Olivers, Kahle Drive region and roads are being ordered to immediately evacuate.

Also included in the evacuation order are areas from Highway 50 at Lake Parkway, east toward Elks Point Road and State Route 207 (Kingsbury Grade), and from Highway 50 to Tramway Drive, including all area roads north and south of Kingsbury Grade.

What's more, all of the South Lake Tahoe area has been under a mandatory evacuation order since Monday. The evacuation order excludes Stateline casinos.

The evacuation order also included "soft road closures," which will allow residents and employees in those areas to access their homes or work, in the following areas, though they are also advised to prepare for evacuation:

• US 50 going westbound (into the Tahoe Basin) at Spooner Jct. (S. Carson St & 50)

- SR 207 westbound at Foothill Rd (intersection at the bottom of Kingsbury Grade)
- SR 28 and US 50 Jct. West Bound on 50

On Monday, earlier, roughly 22,000 residents jammed the city's main artery for hours after they were ordered to leave as the fire advanced.

South Lake Tahoe city officials said only a handful of residents defied Monday's evacuation order. But nearly everyone worried Tuesday about what the fire would do next.

Tom O'Connell and his wife, Linda, awaited the fate of their home while anchored on their sailboat in Ventura Harbor. The two-bedroom they've owned for 40 years survived the Angora Fire that destroyed about 250 houses in 2007. They didn't know if they'd be lucky again.

"You worry about the things you can have some control over," O'Connell said. "We've no control over this."

Pushed by strong winds, the Caldor Fire crossed two major highways and swept down slopes into the Tahoe Basin, where firefighters working in steep terrain were protecting remote cabins.

Cal Fire Division Chief Erich Schwab said some homes burned, but it was too early to know how many.

"The fire burned through there extremely fast, extremely hot. And we did the best that we could," he said Tuesday night.

A pyrocumulus cloud formed Tuesday afternoon atop the South Lake Tahoe area, drawing concerns that it could further fuel the already fearsome Caldor Fire.

Views from an Alert Wildfire camera on Hawkins Peak showed the behemoth fire cloud emerging atop Tahoe and neighboring areas beginning at around 11 a.m. Pyrocumulus clouds are more than just menacing looking: If intense enough, this cloud could transform into a pyrocumulonimbus cloud — dubbed the "fire-breathing dragon of clouds" by NASA due to its sheer intensity. The clouds are formed when air heats up and moves upward, pushing smoke and water vapor with it. A pyrocumulonimbus cloud can bring with it its own set of winds and thunderstorms.

There is concern more pyrocumulus activity could unfold Wednesday.

## Can Tahoe be saved? Wildfire, climate change endanger the future of a California jewel

By Dale Kasler, Ryan Sabalow, and Jason Pohl Merced Sun-Star, Wednesday, Sept. 1, 2021

The world-class playground in Sacramento's backyard is on fire.

Will it ever be the same?

The Caldor Fire poses an existential threat to the Lake Tahoe basin — to the woodsy hiking trails and ski slopes, the beachfront mansions and rustic cabins. Even the pristine waters are in peril as ash floats down from the sky, possibly compromising the blue lake's fabled clarity.

The fire, which has burned for more than two weeks, could be extinguished before the property damage reaches catastrophic levels, but the consequences will surely last for years. Tourism will suffer, and possibly the real estate market, at least for the foreseeable future.

The ferocity of the Caldor Fire, which emptied out the city of South Lake Tahoe Monday, has reinforced awareness of climate change and wildfire risk as ever-present realities. That could damage the very idea of Tahoe — as a place to go camping or boating, or as a place to live in retirement — for years to come.

"We knew we'd survive COVID closures as long as we were able to reopen. We knew our community was going to be there and support us and be there for us when we came back," said Gianna Aveni, co-owner of Blue Granite Climbing Gym in South Lake Tahoe. "With this fire, there's so much more uncertainty. If tons of homes get destroyed, if the landscape gets completely destroyed, it's hard to say what the community in South Lake Tahoe is going to look like."

It's hard to overstate the importance of Lake Tahoe in the minds of many Californians. When people in Sacramento say they're "going up the hill" for the weekend, it's obvious they're talking about Tahoe.

Even if much of the south shore stays intact, a place that relies heavily on its good looks and alpine air is going to be not nearly as scenic for the foreseeable future. Especially in summer, when the fire damage is more obvious and the dead trees and blackened dirt make camping and hiking a lot less desirable.

"It'll be a black eye for the summer business," said Patrick Tierney, a San Francisco State University tourism professor who has studied the Tahoe region. "Will it still be as popular as ever? Not for a while. We know the scenery's going to be marred.

"The lake is still going to be beautiful. But it's going to be different. People tend not to go back to burned areas."

Does that mean Tahoe is dead as a place to visit or live? Don't even dare suggest that to the community's government officials.

"This community is so incredibly resilient," said Lindsey Baker, the city of South Lake Tahoe's public information officer. "Tourism is not going to end here in South Lake Tahoe and in the basin. It never will ... Life ebbs and flow, and we are no different here in Tahoe. But we will bounce back."

### Tahoe's importance to the region

The basin is "a natural wonder of the world," Chris Anthony, a Cal Fire assistant deputy director based in South Lake Tahoe, said at a press conference a few miles from the flames Monday night. "Whether you live here full time, own a second home here, visit the basin during family vacations ... there are literally hundreds of thousands of people who hold Tahoe dear to their heart."

Anthony tried to boost evacuees' confidence, saying: "These are trying times but we will get through them together."

Yet Anthony also acknowledged the enormity of the problem facing the Tahoe region — this week and in the future.

He said words such as "unprecedented" and "extreme" are no longer appropriate to describe a threat like the Caldor Fire, "given the clear trends associated with drought, a changing climate and unresilient forest stands."

In other words, if this fire doesn't wreck Tahoe, what about the next one? Environmentalists are reacting with utter fear to what's happened already.

"The aggressive surge of the fire in recent days – accelerated by low humidity and drought-stricken vegetation – is a horrifying illustration of how climate change can impact our communities, our safety and the wild places we treasure. Just months ago, it was widely considered unimaginable that wildfire could crest the Sierra Nevada," the League to Save Lake Tahoe said Tuesday.

The irony is that experts say Tahoe has done about all it can to stay safe. After the 2007 Angora Fire burned 3,100 acres and 254 homes near the south shore, the region amped up its fire safety efforts.

Anthony said the Tahoe region had invested millions of dollars in the past 15 years to make it less prone to major fire — undertaking "prescribed fire" and forest thinning projects to eliminate flammable vegetation. He said the area has pushed hard on "hardening" to make roofs and eaves sturdier, and landscape inspections to make sure residents are maintaining adequate "defensible space."

It's been an admirable effort, the experts agree. The woods of the Tahoe basin are "more thinned out for a forest than any other place I've seen," said Susie Kocher, a forestry specialist at UC Cooperative Extension. "A lot of the south shore looks pretty good."

Kocher had plenty of time to discuss Tahoe's fire safety Monday afternoon. She was stuck in traffic for hours on Lake Tahoe Boulevard, along with a freaked-out cat, as she and 22,000 other people evacuated the basin.

A resident of Meyers, a few miles south of South Lake Tahoe, she was particularly worried that sparks or embers, powered by the wind, could ignite spot fires "that could go block to block" in residential areas. What if her neighbor's home catches fire?

"If their house goes, our house goes," she said.

#### Fire season weighs on tourists

The immediate threat from the Caldor Fire extends beyond flames. The smoke that's periodically settled into the basin during this latest hellacious California fire season has taken a considerable toll on Tahoe residents.

"Since July 4 we've had smoke nearly every day," said Carl Ribaudo, a tourism consultant who lives in South Lake Tahoe.

He said the tourism industry and Tahoe — and the rest of California — could be facing a reckoning over the increasing presence of mega-fires.

"The regularity of these fires is creating a perception of, 'Gee, do I book a trip to California?" Ribaudo said. "Some people may say, 'It's fire season, let's not go there."

The fact is, adapting to new realities is a way of life for Tahoe's motel owners, ski resort operators and others who depend on visitors.

As climate change has clobbered the reliability of snowfall on the Sierra Nevada, the resorts have invested tens of millions of dollars in artificial snow-making equipment to keep ski season live. It was telling, perhaps, that Sierra-at-Tahoe deployed a snow machine Sunday night to hose down the area around its main lodge and keep it from burning down.

Tierney said Tahoe's reputation as a hub for skiing and snowboarding will remain intact, even if some of the slopes feature blackened trees. "The skiers are still going to come out," the San Francisco State professor said.

The resorts aren't just banking on winter, though. The depletion of a dependable snowpack has had many of them scrambling in recent years to reinvent themselves as year-round destinations.

Heavenly built zip lines, rope courses and a "summer tubing" run that lets guests speed down an artificial surface slope in an inner tube. Boreal installed trampolines, a skateboard park and a BMX biking trail, and began hosting summer camps.

Squaw Valley, which brought fame to Tahoe when it hosted the 1960 Winter Olympics, is as much a summer destination as a winter resort. Among the summer offerings: Tuesday night blues, Wednesday night yoga classes and a late-summer rock band competition. (All have been canceled because of the Caldor Fire).

With Tahoe facing more wildfire threats, will the resorts keep investing? It doesn't hurt that many of them are owned by deep-pocketed corporations. For instance, Heavenly, Northstar and Kirkwood — the last of which is being threatened by the Caldor Fire — are owned by international hospitality company Vail Resorts.

Tierney said he believes the big resorts will continue investing to draw larger pools of visitors, summer and winter. In an emailed statement, Vail senior vice president Doug Pierini said, "We are as committed as ever to the Lake Tahoe community, employees, guests and our resorts."

### Tahoe's casinos were already struggling

In his 47 years in the region, Duane Wallace, chief executive of the South Tahoe Chamber of Commerce, thought he'd seen all Mother Nature could throw at the area: eight-foot snowstorms, blackouts, mudslides that closed the roads for months. The Angora Fire in 2007.

Now comes the Caldor Fire, a year after the COVID-19 pandemic shut most of the basin down for months.

"If it weren't for bad luck, we'd have no luck at all," he said by phone from Truckee, where he evacuated with his wife, Tamara Wallace, the mayor of South Lake Tahoe.

But he's optimistic. Even if the city burns, it will rebuild and people will move back. It's too pretty up there for them not to.

"The fishing. The hiking," he said. "The beautiful air that doesn't even seem like it's there. The crisp snowy mornings. Those are the reasons we live there."

It sure isn't for the gambling.

Years ago, Tahoe's casinos were a huge part of the region's economy. Harrah's used to run buses from Sacramento to bring customers to the south shore, said Ken Adams, a gambling consultant in Reno.

"Tahoe was a really good investment," he said. "In the '80s, they were hanging slot machines from the ceilings. There is none of that now."

The big four on the south shore — Harrah's, MontBleu, Harveys and the Hard Rock — don't dominate the landscape as in the old days.

The Caldor Fire surely won't help. The casinos' efforts to reinvent themselves as entertainment centers have been smoked out, for the time being. Country musicians Eric Church and Dierks Bentley postponed concerts scheduled for the big outdoor theater at Harveys Casino in Stateline, Nev. The rock band Phish moved a pair of shows from Harveys to the Shoreline Amphitheatre in Mountain View.

The casino business at Tahoe "is a diminishing market," Adams said. "It gets smaller and smaller all the time."

### Will the rich keep buying Tahoe trophy properties?

In some ways, Tahoe has become the trophy destination for the wealthy. Tech tycoon Larry Ellison once sold a \$20 million mansion on the lake; then he spent \$36 million buying the old Cal Neva Casino on the north shore. The Cal Neva, of course, was once owned by Frank Sinatra.

Real estate agents insist that wildfires won't stop the stampede of wealthy buyers to the region.

"It's not like we haven't had fires in the past," said Sue Lowe, a broker based in Tahoe with Chase International Real Estate. The Angora Fire, as bad as it was, "didn't give us a blip in the real estate market."

Besides, where else are people going to buy? "You've got hurricanes on the East Coast, tornadoes (in the Midwest)," said Kerry Donovan of the Donovan Group, a Chase affiliate in Incline Village.

"People still want to be here," she said. "The majority of the time, this is one of the cleanest, safest places."

But others who know Tahoe real estate aren't quite as confident.

Randy Lane, who's been a Tahoe developer and consultant for 45 years, said fires won't scare off the true locals. "They gut it out," he said. "They live here."

The out-of-towners looking for a second home? That could be a different story, even if the Caldor Fire doesn't end up devouring the community.

"Even if the fire stops tomorrow, people are going to take a deep breath and say, 'Is this where I really want to have a place?" Lane said. "It'll definitely have an impact."

### Caldor Fire now near Kirkwood; Tahoe tourism agencies discourage visits

By Michael McGough

Merced Sun-Star, Wednesday, Sept. 1, 2021

The Caldor Fire burned actively overnight, surpassing 200,000 acres early Wednesday as it continues to displace tens of thousands of residents from the South Lake Tahoe area.

The entire city of South Lake Tahoe, home to 22,000 residents, was ordered to evacuate Monday, along with surrounding communities in the Lake Tahoe Basin and along the lake's west shore.

Mandatory evacuation orders hopped the state line into Nevada on Tuesday, with residents in Douglas County, including Upper Kingsbury and Lower Kingsbury, told to leave.

"The fire remained very active overnight due to the extremely poor humidity recovery and warm temperatures," Cal Fire and the U.S. Forest Service wrote in a Wednesday morning incident report.

The fire is now 204,390 acres — more than 300 square miles — and is 20% contained, with most of that containment on its western perimeter. It is now the 15th largest wildfire in state history, according to Cal Fire records.

The Caldor Fire has destroyed close to 550 homes, many of them during the incident's early, intense run through Grizzly Flats south of Pollock Pines in mid-August.

More than 50,000 El Dorado County residents have now been evacuated from an area covering almost the entire eastern half of the county, from the Pollock Pines and Sly Park area through the California-Nevada border just east of South Lake Tahoe. That includes the communities of Emerald Bay, Meeks Bay and Tahoma along the west shore of the lake.

The fire has crept east along Highway 50 since igniting Aug. 14. Earlier this week, the blaze jumped Highway 89 and began to burn in the hills surrounding the holiday-themed community of Christmas Valley in the Lake Tahoe Basin.

A long stretch of Highway 50 between Pollock Pines and the Nevada state line remains closed in both directions.

More than 4,200 firefighters are assigned to the Caldor Fire.

### Winds lighter than expected Tuesday, but more gusts coming

Wind gusts were a bit calmer than anticipated Tuesday in the fire zone, according to Tim Ernst, a Cal Fire operations section chief on the Caldor Fire.

"A lot of opportunity to make some progress last night," Ernst said during a Wednesday morning briefing.

"We're fortunate the fire did not make as strong a push (toward) Tahoe as it did the previous day."

The National Weather Service has a red flag warning in place in the South Lake Tahoe area through 11 p.m. Wednesday. Cal Fire and the Forest Service in their morning incident report said gusts could reach about 40 mph, which could produce erratic fire behavior all day, including spot fires.

#### Fire burns near Kirkwood

Ernst said the Caldor Fire "is currently hung up right on the ridge outside of Kirkwood," the ski resort along Highway 88 near the Amador-Alpine county line. The area is also home to about 150 residents.

The operations chief called the Kirkwood Mountain Resort area one of the "major concerns" Tuesday and said it would be a continued area of emphasis Wednesday.

Ernst said containment lines are continuing to hold well on the west zones of the fire, near Pollock Pines and Sly Park.

To the northeast, near well-populated areas in the Lake Tahoe Basin, Ernst said strong dozer lines have been established that will hopefully protect homes.

#### Turn off your sprinkler, fire officials say

Tahoe-area fire officials in a statement Wednesday told residents evacuating their homes not to leave "irrigation, garden hoses, and sprinklers on roofs actively running" as they flee.

"Not only is this not helpful in protecting homes from wildfire, but it can be detrimental for firefighters who rely on a water supply with adequate flow to fight fire in extremely dangerous conditions," the Tahoe Fire and Fuels Team wrote in a news release.

Fire officials also wrote that spraying down roofs and lawns before evacuating is a waste of time.

"This is not effective, as the roof will dry very quickly, as will the vegetation, which doesn't protect the home itself."

The Tahoe Fire and Fuels Team, which is made up of representatives from Cal Fire, the Nevada Division of Forestry and Lake Tahoe Basin fire agencies, also noted that nearly 90% of homes that burn in wildfires are ignited by embers, not flame fronts.

"Maintaining defensible space and having separation between flammable fuels, along with hardening homes to ember intrusion, are the best preparations residents can take prior to evacuating homes."

#### Tahoe tourism agencies discourage visitors

The Lake Tahoe Visitors Authority and North Lake Tahoe Visitor Bureaus in a joint statement Tuesday afternoon asked visitors to postpone any planned visits to the Lake Tahoe area due to the Caldor Fire until further notice.

"We ask for everyone's support in following the orders of emergency agencies," the two tourism agencies wrote.

It's the second time in as many years that Tahoe-area tourism officials have taken the previously unprecedented step of asking visitors not to come. Last year, it was due to the COVID-19 pandemic.

## Caldor Fire: Utility districts facing water shortages as fleeing residents leave sprinklers on

By Brian Duggan and Amy Alonzo Recordnet.com, Wednesday, Sept. 1, 2021

After numerous residents left irrigation lines, garden hoses and sprinklers on their roofs running as they fled the Caldor Fire, Lake Tahoe Public Utility Districts and other water purveyors are reporting low water levels in tanks, wells and pump stations that could impact firefighting efforts.

Water districts on the west and south shores noticed the drawdown almost immediately as evacuations started, according to Erin Holland, public information officer for the Tahoe Fire and Fuels Team. As evacuations warnings have spread to Douglas County, water purveyors in Douglas County are also reporting drawdowns.

"People are doing it with the best intentions but it's not a good wildfire protection strategy," Holland said. It can leave water supplies low for firefighters who need fast access from hydrants to protect homes.

The districts are asking residents who evacuated and left their water running to remain out of the fire area and contact their provider and ask that their water be turned off.

"Hardening homes to ember intrusion is one of the most effective preparedness efforts residents can take to protect their homes in a wildfire," North Tahoe Fire Chief Steve Leighton said in the press release. "We ask that you turn off any outdoor irrigation, roof sprinklers or hoses before you evacuate to ensure our firefighters have ample water and enough water pressure to safely fight the fire."

The districts are also reporting residents calling and asking if they should water down their properties. Leighton instead advised people to clear roofs of pine needles and leaf litter; remove combustible

decorations, furniture and cushions from decks; and clear brush and other combustible materials away from their home.

Embers are responsible for nearly 90 percent of home destruction in wildfires; just 10 percent of homes lost are due to surface fires.

By Wednesday morning, the Caldor Fire continued to burn south of the city of South Lake Tahoe after evacuation warnings went into effect for more Douglas County residents in neighboring Nevada.

On Tuesday evening, Douglas County warned residents in the Carson Valley along Foothill Road from Centerville Lane north to Muller Lane to prepare to evacuate. Earlier Tuesday, the county issued mandatory evacuation orders for residents in:

- Upper Kingsbury (South)
- Upper Kingsbury (North)
- Central Kingsbury
- Lower Kingsbury
- Lower Oliver, Kahle Drive region and roads
- Lake Village
- Round Hill region and roads including South of Elks Point Road

The fire, which started August 14, has burned nearly 320 square miles has proven difficult for fire crews to stop. It's 20% contained.

A red flag warning, meaning gusty southwest winds and dry conditions, remains in effect Wednesday until 11 p.m.

Here is the latest map of the fire published by the National Forest Service on Wednesday morning:

Pushed by strong winds, the Caldor Fire crossed two major highways and swept down slopes into the Tahoe Basin, where firefighters working in steep terrain were protecting remote cabins.

Cal Fire Division Chief Erich Schwab said some homes burned, but it was too early to know how many.

"The fire burned through there extremely fast, extremely hot. And we did the best that we could," he said Tuesday night.

Thick smoke prevented air firefighting operations periodically last week. But since then, nearly two dozen helicopters and three air tankers dumped thousands of gallons of water and retardant on the fire, fire spokesman Dominic Polito said.

As flames moved toward the Heavenly ski resort on the California-Nevada border, officials turned on the mountain's snow-making machines.

Cal Fire Battalion Chief Jed Gaines told KPIX-TV that spraying the slopes with water was "increasing the humidity level, it's getting everything wet" so that if the fire starts climbing "it's able to slow it down."

## Lake Tahoe live updates: Powerful winds expected to intensify battle against Caldor Fire

By Jessia Flores, John King, Dominic Fracassa San Francisco Chronicle, Wednesday, Sept. 1, 2021

Firefighters battling the Caldor Fire endured another day of gusting winds as they worked to protect the Tahoe Basin's homes and natural beauty. Lake Tahoe residents exuded resiliency in the face of what could be the worst disaster in the region's history. A huge new Red Cross shelter opened in Reno, one of many set up to help the tens of thousands who've fled the Caldor Fire. Despite the risks of living in wildfire-prone areas like El Dorado County, nearly 1,500 new housing units were built there between 2010 and 2020.

Keep track of Northern California wildfires with The Chronicle's interactive fire map. See air quality information down to the neighborhood level in real time with The Chronicle's air quality map.

**Winds expected to pick up Wednesday morning, intensifying firefight:** With a red flag warning in effect until Wednesday evening, Cal Fire officials said they expected swirling, gusting winds to pick up by around 9 a.m. The winds were a primary concern for the fight against the Caldor Fire Wednesday, given already critically dry conditions and persistently low humidity.

**Caldor Fire slowed its march toward Tahoe overnight:** Cal Fire officials said the Caldor Fire didn't push toward Tahoe quite as much as it did Monday night. Cal Fire Assistant Chief Tim Ernst said at a Wednesday morning briefing that, thanks in part to cooperative weather conditions overnight Tuesday, the blaze "did not make as strong a push" into Tahoe as did 24 hours earlier.

**Bulldozer catches fire on west end of Caldor Fire:** Cal Fire and U.S. Forest Service officials said Wednesday morning that a bulldozer deployed to the western edge of the Caldor Fire, west of Grizzly Flats, caught fire Tuesday. There were no reports of injuries and the fire was quickly extinguished, but officials said it was a reminder for firefighters to be vigilant about safety protocols during a Wednesday morning briefing.

**Caldor Fire crosses 200,000 acres:** The Caldor Fire was measured at 204,390 acres Wednesday morning and was 20% contained, a slight improvement from overnight. Favorable weather conditions helped impede the fire's growth somewhat, starting around midnight, Cal Fire officials said. But the prospect of another day with gusting winds in the forecast remained a key concern for Wednesday. Spot fires continued to be an issue, with some found up to 1/2 mile away from the fire's edge.

**Red flag warning still in effect for area including Caldor Fire:** A red flag warning remains in effect for a swath of eastern California and western Nevada, including the area where the Caldor Fire is burning. A combination of low humidity, drought conditions and gusting winds could help fan the flames of existing fires and contribute to starting new ones. The warning is set to expire at 11 p.m. Wednesday.

**1,500 new homes were built in the Caldor Fire evacuation area in the last decade:** Despite the increased risk of living in wildfire-prone areas like El Dorado County, home construction in these areas has continued to proceed at a steady pace. A Chronicle analysis of U.S. Census data for the areas currently under evacuation orders within El Dorado County found that nearly 1,500 new housing units were built there between 2010 and 2020, even while the area's overall population has declined by nearly 500 people. Read the story here.

**Unhoused people evacuated from South Lake Tahoe:** The Tahoe Coalition for the Homeless said five unhoused people were recently located and evacuated from South Lake Tahoe amid ongoing efforts to find people in need of transport out of the area, which is under an evacuation order due to the Caldor Fire.

**Fundraiser for injured firefighter brings in more than \$40,000:** A GoFundMe campaign set up to raise money for Richard Gerety, a firefighter injured while battling the Caldor Fire, raised more than \$40,000 in less than a day. According to the online campaign, Gerety, a volunteer with the West Stanislaus Fire Protection District, suffered second- and third-degree burns to 20% of his body while fighting the fire on Saturday and will need to spend a month in the hospital. Hundreds of GoFundMe campaigns have been launched for people who've suffered significant losses due to the Caldor Fire.

**Heavenly Ski Resort fires water hydrants as part of mitigation efforts:** Resort officials pumped "significant water" onto the mountains at Heavenly Ski Resort on Tuesday as part of the resort's "mitigation efforts" related to the Caldor Fire, said Susan Whitman, a spokesperson for Heavenly, Northstar and Kirkwood resorts. Video captured by KCBS Radio on Tuesday showed the resort firing several of its water hydrants, blasting water across a portion of the resort. Whitman said "key infrastructure" is in place at Heavenly and Kirkwood, adding that the U.S. Forest Service and officials with various fire and local agencies have assisted resort officials in structure protection and other mitigation efforts.

**Caldor Fire grows to more than 199,000 acres:** The blaze grew to 199,632 acres by Tuesday evening, with containment increasing to 18%, Cal Fire officials said. Strong winds and poor humidity caused fire

behavior to increase "dramatically" in the northeast and eastern divisions early Tuesday morning, Cal Fire officials said.

**New Caldor Fire evacuation orders in Alpine County:** Cal Fire issued new evacuation orders as of 4:45 pm. Tuesday in a number of areas along Highway 88, and to the north of highways 88 and 89, to the Alpine/El Dorado County line. For details, and to see new evacuation warnings for the county, go to this Cal Fire site.

**Caldor Fire evacuees camp in a Walmart parking lot, following in steps of Camp Fire refugees:** Leia Sutton has always loved camping after growing up in the mountain town of Meyers. But nothing could have prepared her for the spot that she and her parents found themselves in on Tuesday — a Walmart parking lot just across the Nevada state line in Gardnerville. Read the story here.

**Newsom says the Caldor Fire is California's 'No. 1 priority':** Gov. Gavin Newsom on Tuesday said the Caldor Fire is the "No. 1 priority" in California and that state officials are doing their best to fight the blaze. "All I can say is we're doing everything in our power to have your back," Newsom said at a news conference in Alameda County. The governor said he plans to visit the area Wednesday.

**'We're preparing for a worst-case scenario'**: Nevada officials said regular fire crews are being joined by nearly 200 personnel from the National Guard personnel and the Nevada Department of Forestry to provide everything from traffic control on the ground to helicopters in the air. According to Jon Bakkedahl, a manager at the Nevada Division of Emergency, preparations began 10 days ago for the possibility that the blaze would reach the state border. He also warned that anything could happen in the days ahead, given dry terrain and high winds: "It's called a wildland fire for a reason. It acts wild. ... We are preparing for a worst-case scenario."

Sapphire water, Hollywood stars, pristine nature — fire and smoke can't dim vibrant attraction of Lake Tahoe: Lake Tahoe is facing what could be the worst disaster in its history, with the 2½-week-old Caldor Fire threatening to bring catastrophic flames right to its shores for the first time ever. But resilience seems to be laced into the people of Tahoe as much as it is into the soil and waves. Read the story here.

This map shows where National Forests are closed due to California's wildfires: As wildfires continue to tear through the state, California regional forester Jennifer Eberlien announced Monday that all of the region's National Forests would be closed to protect the natural resources and minimize the burden on firefighting crews. See the map showing the perimeters of all the national forestlands that have been shut down in relation to active fire here.

**Here's the latest list of shelters for Caldor Fire evacuees:** The Red Cross updated its list of evacuation shelters in California and Nevada set up to aide people fleeing the Caldor Fire. A full list of shelters is available here. Friends in Service Helping, an organization in Carson City, Nev., said on Facebook they will serve lunch and dinner to Caldor Fire victims every day from 11:30 a.m. to 5 p.m. at 138 E. Long St. Carson City, Nev.

# To Save Lake Tahoe, They Spared No Expense. The Fire Came Over the Ridge Anyway.

Experts believe that the challenge is a cautionary tale for future megafires in the West and lays bare a certain futility in trying to fully control the most aggressive wildfires.

By Thomas Fuller and Livia Albeck-Ripka

The New York Times, Wednesday, Sept. 1, 2021

SOUTH LAKE TAHOE, Calif. — They sent thousands of firefighters, 25 helicopters and an arsenal of more than 400 fire engines and 70 water trucks. Yet the fire still advanced.

They dropped retardant chemicals through an ash-filled sky and bulldozed trees and brush to slow the march of the flames through the steep and rugged terrain of the Sierra Nevada. Yet the fire still advanced.

Bursting across a granite ridge into the Lake Tahoe basin, the Caldor fire now threatens tens of thousands of homes and hotels that ring the lake.

On Tuesday, the smoke-choked streets of South Lake Tahoe, the most populous city on the lake, were deserted, save for police patrol cars and an occasional convoy of fire vehicles. Thousands of residents and tourists had been evacuated the day before.

The lake, renowned for its bright blue hues and the evergreen forests that surround it, was smothered in a slate of sickly orange-gray haze. On the Nevada side of the border, which has not yet been evacuated, one industry was still limping along: A trickle of gamblers sat at slot machines to the whooshing sound of large air purifiers that attempted to keep out the pungent smoke. The air quality index was nearing 500, a level considered hazardous.

Battling the Caldor fire has been humbling and harrowing for California firefighters. Experts believe that the challenge is a cautionary tale for future megafires in the West and lays bare a certain futility in trying to fully control the most aggressive wildfires.

"No matter how many people you have out on these fires, it's not a large enough work force to put the fire out," said Malcolm North, a fire expert with the U.S. Forest Service and a professor at the University of California, Davis.

"You can save particular areas or particular homes," Professor North said. "But the fire is pretty much going to do what it's going to do until the weather shifts."

On Monday, propelled by strong winds, the fire crested a granite ridge that officials had hoped would serve as a natural barrier. Embers leapfrogged past firefighting crews and descended toward the valley floor just miles from South Lake Tahoe. By early Tuesday, the fire had taken hold in the Tahoe basin. Stands of pine ignited by flying embers were fully engulfed in flames, casting a bright orange glow into the night sky.

It was only the second time, officials said, that a wildfire that began on the western slopes of the Sierra Nevada crossed into the eastern side. The first was also this summer: the Dixie fire, the second largest in California history. No deaths have been reported in either fire.

The authorities say about 27,000 firefighters were battling blazes across the country, about 15,000 of them in California. All national forests in California will be closed by Tuesday night. Hundreds of soldiers and airmen and several military aircraft have been sent by the National Guard. But the resources are no match for the ferocious blazes, which continue to outpace firefighters and explode across the state.

The blazes in Sierra forests have exposed the domino effects of climate change on firefighting challenges: Frequent heat waves and overall higher temperatures have desiccated West Coast flora, making it more vulnerable to large fires. Droughts have weakened trees, encouraging insect infestations that have contributed to the deaths of close to 150 million trees. This creates more fuel for fires.

Scientists say there is also a correlation between global warming and the increased wind conditions that have fanned fierce wildfires across the state. And they point to a need for better forest management, thinning out some of the thickest woods.

What characterizes the megafires of recent years, experts said, is their tendency to launch embers far ahead of the main fire front — sometimes by miles — and for the embers to land on parched terrain that is instantly combustible. This can rapidly expand the perimeter of the fire, which hops over one of the main containment tools: the bulldozed areas, known as fire breaks, that create a line of containment.

The Tubbs fire in October 2017 jumped over what would normally be considered a formidable fire break — a six-lane freeway — and went on to incinerate 1,200 homes in the residential community of Coffey Park.

"These spot fires are causing a lot of havoc," said Craig Clements, a professor of meteorology and the director of the Wildfire Interdisciplinary Research Center at San Jose State University, a group that is modeling the spread of the Caldor fire.

"There's just fire all around," Professor Clements added, "and that makes it very difficult to suppress." As a measure of how combustible the landscape has become, other scientists have calculated that embers have a 90 percent chance of becoming spot fires once they land.

The chaotic way these megafires spread was on display in the hills above South Lake Tahoe on Monday. Kyle Hukkanen was leading a crew of 12 inmate firefighters armed with axes, shovels and chain saws. They bounded down a steep hillside of granite boulders and evergreen trees until they reached a spot where wisps of smoke were rising from the ground.

They dug and sprayed the smoldering fire with water before ascending back to their idling truck. "This is not good," Mr. Hukkanen said as gusts of wind fed the spot fire on the hillsides. The radio crackled with reports of spotting farther down the mountain toward South Lake Tahoe, and Mr. Hukkanen and his crew disappeared down a smoke-shrouded road.

Fire specialists say some firefighting tools are appropriate on a smaller scale but outmatched by the huge fires of recent years.

In the hills and gullies where the Caldor fire has burned 190,000 acres over the past two weeks, helicopters dropped large buckets of water — thousands of gallons at a time — but they hardly seemed a match.

"That's great for protecting a neighborhood, but when you think about the size of a 750,000-acre fire, that's nothing," Professor North, the U.S. Forest Service expert, said of dropping water or retardant in large swaths of forest.

He and others added that the Sisyphean task of fire containment pointed to a desperate need for better mitigation.

Controlled burns that embrace Indigenous methods to use "good" fire to fight destructive megafires have become an increasingly accepted method in recent years, but experts say the state has a lot of catching up to do.

Until then, attempts to suppress fire are inevitably required to save lives and property. In the past year, California spent more than \$1 billion on emergency fire suppression efforts but slashed its prevention budget. This year's budget includes more than \$500 million for fire prevention, Gov. Gavin Newsom said in April.

Still, resources remain strained. The U.S. Forest Service has struggled to retain federal firefighters, who earn around half of their state counterparts' pay at Cal Fire. When the Caldor fire ballooned to 6,500 acres in mid-August, just 242 firefighters had been assigned to it. Eventually, hundreds more were redeployed from the Dixie fire, which has razed more than 800,000 acres and was less than half contained on Tuesday afternoon.

On the receiving end of the worsening blazes are the residents who wonder where, if anywhere, will be safe from wildfire.

Among the evacuees from South Lake Tahoe were Darren Cobrae, a real estate investor, and his partner, Stephanie Cothern, who was driving the couple's car toward the Nevada state line.

Inside were bags of clothing, two large parrots and three dogs, Banana, Freddy and Copper.

Mr. Cobrae said he moved to South Lake Tahoe from Southern California, where his home was nearly burned in a wildfire in 2007.

"I figured I would be safe in this city," Mr. Cobrae said. "And now this," he said, pointing to a sky thickening with smoke.

# Dixie Fire: New evacuation order issued in Plumas County; Butte County officials rescind all evacuation orders, warnings

By Jessica Flores San Francisco Chronicle, Tuesday, Aug. 31, 2021

All evacuation warnings and orders have been lifted in Butte County — one of the five counties that was scorched by the Dixie Fire, according to local law enforcement authorities.

Meanwhile, the Plumas County Sheriff's Office issued an evacuation order, in a sign that the secondlargest wildfire in California history was far from over. The evacuation order affected Beckwourth Genesee Road east through Dixie Valley Road to the Plumas County line and north to the Plumas County line.

The Butte County Sheriff's Office on Monday removed all of the remaining evacuation warnings in the county, which include Jonesville, Butte Meadow, lower Butte Meadows, Snag Lake and Lake Philbrook areas, officials said on Twitter.

As of Monday, there were no evacuation orders or warnings in Butte County, according to Cal Fire.

The Dixie Fire — burning through Plumas, Butte, Lassen, Tehama and Shasta counties — was at 807,396 acres and was 48% contained, Cal Fire wrote in its Tuesday morning incident update.

The blaze has destroyed 1,277 structures, damaged another 92 and has threatened 13,614 structures. Evacuation orders and warnings were still in place for the other four counties.