

# Fires charring range set up ranchers for hardship in US West

August 13 2021, by Matthew Brown and Christopher Weber

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Firefighters watch a hillside burn on the Northern Cheyenne Indian Reservation, Wednesday, Aug 11, 2021, near Lame Deer, Mont. The Richard Spring fire was threatening hundreds of homes as it burned across the reservation. Credit: AP Photo/Matthew Brown

Wildfires tearing through Montana and elsewhere in the U.S. West are devouring vast rangeland areas that cattle ranchers depend upon, setting

the stage for a potential shortage of pasture as the hot, dry summer grinds on.

On the Northern Cheyenne Indian Reservation, firefighters and local authorities scrambled to save hundreds of homes in the path of a fire that started Sunday and exploded across more than 260 square miles (673 square kilometers) in just a few days, triggering evacuation orders for thousands of people.

Some ranchers stayed behind to help fight it. Yet as flames charred mile after mile of rangeland and forest, they could do little to protect cattle pastures that are crucial to economic survival for families on the remote reservation.

As the fire raged across rugged hills and narrow ravines, tribal member Darlene Small helped her grandson move about 100 head of cattle to a new pasture, only to relocate them twice more as the flames from the Richard Spring fire bore down, she said Thursday. An [extreme drought](#) that's blanketing the West has made matters worse by stunting vegetation untouched by fire.

"They've got to have pasture where there's water. If there's no water, there's no good pasture," Small said. Particularly hard hit were some ranchers already depending on surplus grass after a fire burned them off their normal pasture last year, she said.



Rowdy Alexander watches from atop his horse as a hillside burns on the Northern Cheyenne Indian Reservation, Wednesday, Aug 11, 2021, near Lame Deer, Mont. The Richard Spring fire was threatening hundreds of homes as it burned across the reservation. Credit: AP Photo/Matthew Brown

Meanwhile, California's Dixie Fire—which started July 13 and is the largest wildfire burning in the nation—threatened a dozen small communities in the northern Sierra Nevada even though its southern end was mostly corralled by fire lines.

The fire has burned 790 square miles (2,000 square kilometers), destroyed about 550 homes and nearly obliterated the town of Greenville last week. It was 30% contained.

The Montana blaze was primed over the last several days by swirling winds and hot temperatures. It has spread in multiple directions, torching trees and sending off embers that propelled the flames across the dry landscape.

The fire crept within about a mile (3.2 kilometers) of the eastern edge of the evacuated town of Lame Deer Wednesday night, Northern Cheyenne Tribe spokesperson Angel Becker said. It passed over a highway where officials had hoped to stop it, putting the southern portion of the reservation at increased risk, officials said.



Rowdy Alexander, left, Keanu Scalpcane, center and Darlene Small, wait along Highway 212 after relocating cattle from a pasture that was threatened by the Richard Spring fire burning in southeastern Montana on the Northern Cheyenne Indian Reservation east of Lame Deer, Mont., Wednesday, Aug. 11, 2021. The

fire spread quickly Wednesday as strong winds pushed the flames across rough, forested terrain. Credit: AP Photo/Matthew Brown

As it closed in on the east side of town and a second fire ignited to the west, tribal officials late Wednesday urged residents who did not heed an earlier evacuation order to flee. Buses moved people to a school about 15 miles (24 kilometers) away and to a shelter set up on the nearby Crow Indian Reservation.

Lame Deer, a town of about 2,000 people, is home to the tribal headquarters and several subdivisions.

"We had some people who refused, but the majority of our elders and women and children definitely left with that last push," Becker said.

With 40-foot (12-meter) flames visible from parts of Lame Deer, firefighters worked into early Thursday morning to keep the fire from destroying houses. None were reported lost, but officials continued assessing the damage. More than a dozen sheds and other outbuildings were lost, they said.



An aircraft drops fire retardant to slow the spread of the Richard Spring fire, east of Lame Deer, Mont., Wednesday, Aug. 11, 2021. The fire spread quickly Wednesday as strong winds pushed the flames across rough, forested terrain. Credit: AP Photo/Matthew Brown

As smoke choked the air, rancher Jimmy Peppers sat on his horse east of town, watching an orange glow intensify over the site of his house as the night wore on.

"I didn't think it would cross the highway, so I didn't even move my farm equipment," said Peppers, who spent the afternoon herding his cattle onto a neighbor's pasture closer to town.

Also ordered to leave were about 600 people in and around Ashland, a

small town just outside the reservation. It remained under an evacuation order, but officials said the danger appeared to have eased for now.

Around the perimeter of Lame Deer, crews were building fire breaks and conducting intentional burns—or "burnouts"—in hopes of lessening the amount of fuel available on the ground, fire spokesperson Jeni Garcin said. Officials were cognizant of the need to protect pastureland, she said.



A tree goes up in flames as a wildfire burns on the Northern Cheyenne Indian Reservation, Wednesday, Aug 11, 2021, near Lame Deer, Mont. The Richard Spring fire was threatening hundreds of homes as it burned across the reservation. Credit: AP Photo/Matthew Brown

"We fully recognize the value of grass around here," Garcin said.  
"There's enough lost in this fire that we will be very strategic about how we do any of these burnouts."

Extreme drought conditions have left trees, grass and brush bone-dry throughout many Western states, making them ripe for ignition.

At the same time, California and some other states face flows of monsoonal moisture that were too high to bring real rain but could create thunderstorms that bring the risk of dry lightning and erratic winds.

In Northern California, a number of wildfires and the threat of more prompted three national forests to close down the Trinity Alps Wilderness Area, a 780-square mile (2,000-square kilometer) area of granite peaks, lakes and trails, into November.

Climate change has made the region warmer and drier in the past 30 years and will continue to make the weather more extreme and wildfires more destructive, according to scientists. The more than 100 large wildfires in the American West come as parts of Europe are also burning.





A plume of smoke rises from a wildfire as Cascade County sheriff's deputies prevent traffic from passing through along Highway 212 on Wednesday, Aug. 11, 2021, near Lame Deer, Mont. The Richard Spring Fire was spreading rapidly Wednesday as strong winds pushed it through rough, forested terrain. Credit: AP photo/Matthew Brown



Smoke from a wildfire obscures a stand of trees on the Northern Cheyenne Indian Reservation, Wednesday, Aug. 11, 2021, near Ashland, Mont. In southeastern Montana, communities in and around the Northern Cheyenne Indian Reservation were ordered to evacuate as the Richard Spring Fire grew amid erratic winds. Credit: AP Photo/Matthew Brown



Smoke from a wildfire obscures a stand of trees on the Northern Cheyenne Indian Reservation, Wednesday, Aug. 11, 2021, near Ashland, Mont. In southeastern Montana, communities in and around the Northern Cheyenne Indian Reservation were ordered to evacuate as the Richard Spring Fire grew amid erratic winds. Credit: AP Photo/Matthew Brown



A firefighter stands along the edge of a wildfire burning on the Northern Cheyenne Indian Reservation, Wednesday, Aug. 11, 2021. In southeastern Montana, communities in and around the Northern Cheyenne Indian Reservation were ordered to evacuate as the Richard Spring Fire grew amid erratic winds. Credit: AP Photo/Matthew Brown



Denim Irish stops in the road before heading to the fire line as the Richard Spring fire moves toward Ashland, Mont., Tuesday, Aug. 10, 2021. Ashland and communities in and around the Northern Cheyenne Indian Reservation in southeastern Montana were evacuated ahead of a massive, wind-driven wildfire that threatened the area Wednesday. Credit: Mike Clark/The Billings Gazette via AP



Krystal Two Bulls, left, and an unidentified friend watch smoke rise from the ridge top behind Two Bulls' house on the Northern Cheyenne Indian Reservation east of Lame Deer, Mont., Wednesday, Aug. 11, 2021. Two Bulls said that she's been preparing for the fire for two days by clearing brush around her house and packing her belongings in case she has to suddenly leave. The fire spread quickly Wednesday as strong winds pushed the flames across rough, forested terrain. In southeastern Montana, communities in and around the Northern Cheyenne Indian Reservation were ordered to evacuate as the Richard Spring Fire grew amid erratic winds. Credit: AP Photo/Matthew Brown



People are seen on the street as a wildfire approaches the town, Tuesday, Aug. 10, 2021, in Ashland, Mont. The Richard Spring Fire was threatening hundreds of homes in Ashland and on the nearby Northern Cheyenne Indian Reservation. Credit: Mike Clark/The Billings Gazette via AP



A man uses a hose on flames approaching a roadway as the Richard Spring Fire moves towards populated areas in and around the Northern Cheyenne Indian Reservation on Tuesday, Aug. 10, 2021, near Ashland, Mont. Credit: Mike Clark/The Billings Gazette via AP





A plume of smoke rises from the Richard Spring wildfire on Wednesday, Aug. 11, 2021, north of Lame Deer, Mont. The fire spread quickly Wednesday as strong winds pushed the flames across rough, forested terrain. Credit: AP photo/Matthew Brown

New research indicates wildfire smoke may be part of a vicious cycle making clouds rain less, which makes it hotter and plants drier and easier to catch fire.

Scientists flew a research plane into smoky skies six times in the U.S. West in 2018 and found five times the water droplets, but they were half the size, according to a study in Wednesday's *Geophysical Research Letters*. The smaller droplets aren't big enough to fall as rain, said study lead author Cynthia Twohy, a cloud physicist at NorthWest Research

Associates.

This is not the main cause for the lack of rain, but "it could be a factor," Twohy said. "The clouds are being affected. We saw that pretty clearly."

The study has worrisome implications that drought and fire can cause more drought and fire.

The main cause of the drought—a huge factor in worsening wildfires—is natural weather changes with some possible climate change, said Park Williams a hydrology and [fire](#) scientist at the University of California, Los Angeles, who wasn't part of the research.

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