

**Guides:** [We're not robocalling you](#) [How to remove PFAS from your water](#) [Why Lake Powell is important](#)

ENVIRONMENT, NEWS, OUTDOORS, OUTSIDER

# Monarch Pass could serve as a new model for wildfire mitigation in treacherous areas

About 90% of the tall spruce on Monarch Pass have been killed by beetles. If a fire were to spark there, the repercussions would be devastating.



Jason Blevins

4:00 AM MDT on Oct 6, 2021



A Ponsse Bear 8-wheeler cut-to-length machine lifts a beetle-kill tree in the forest harvesting process on Sept. 24, 2021, at Monarch Pass near Poncha Springs. In effort to reduce wildfire fuels, the Arkansas River Watershed Collaborative worked with Miller Timber Services to remove the dead trees using the CTL logging equipment. (Hugh Carey, The Colorado Sun)



The Daily Sun-Up



## Colorado Sun Daily Sun-Up: Wildfire mitigation project o

00:00 / 06:57

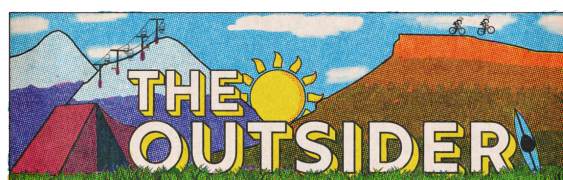
**M**ONARCH PASS — Sergio Bernal casually flicks his wrist and the towering spruce falls. The Oregon forester presses a button and buzzing saws de-limb the beetle-killed tree and slice it into 33-foot logs. A giant claw swings the tree to the side and the slash falls to the forest floor. The eight-wheeled Finnish machine — called a harvester — captained by Bernal crawls down the leafy slope and grabs another tree.

In a matter of minutes, Bernal has stacked hundreds of dead spruce trees on the steep slope. Behind him, another forester in yet another massive machine called a forwarder gathers the freshly felled trees for transport to nearby lumber mills or local firewood sellers.

“These machines, this approach, opens up a lot of opportunity for us to get into areas where we haven’t been able to get in and treat before,” says Andy Lerch, shouting above the growling diesel engine and churning saw.

Lerch is the lead forester for the Arkansas River Watershed Collaborative, a unique coalition of communities, water managers and agencies stretching from Leadville to Kansas that has partnered with the Forest Service in a first-of-its-kind project on the steep slopes flanking Monarch Pass.

About 90% of the tall spruce on Monarch Pass have been killed by beetles. If a fire were to spark there, the repercussions would be devastating. Power lines would fall. The Monarch ski area would be threatened. U.S. 50 would close. Recreation would slow and downstream economies would falter. And, perhaps most importantly, thousands of residents in the 23,000-square-mile Arkansas River Basin would for years see their watershed churning with sediment flowing from the burn scar.



This story first appeared in **The Outsider**, the premium outdoor newsletter by Jason Blevins.

In it, he covers the industry from the inside out, plus the fun side of being outdoors in our beautiful state.

**SUBSCRIBE**



**thecoloradosun**  
14.4K followers

[View profile](#)



[View more on Instagram](#)

22 likes


thecoloradosun

Clearing Monarch Pass

Take a break and watch this oddly satisfying video of foresters clearing beetle-killed trees on Monarch Pass.

In a matter of minutes, hundreds of dead spruce trees can be stacked on the steep slope as 33-foot logs.

About 90% of the tall spruce on Monarch Pass have been killed by beetles. If a fire were to spark there, the repercussions would be devastating.

 Jason Blevins / Colorado Sun

[#colorado](#) [#coloradosun](#) [#thecoloradosun](#) [#coloradomountains](#) [#mountainlife](#) [#logging](#) [#mountains](#) [#monarchpass](#)

[View all comments](#)

Add a comment...

The threat of a devastating wildfire and post-fire impacts — evidenced this summer by rockfall and mudslides from burn scars impacting **communities like Glenwood Springs** — led a wide collaboration of municipalities, water-guardians and land managers in the Upper Arkansas River Basin to fund **the pilot logging project** on Monarch Pass that will likely become a model for communities across the West. As the budget-strapped U.S. Forest Service grapples with increasingly large and destructive wildfires, local communities are acknowledging the need to support forest management projects themselves.



Heavy timber operator Dave Fremont lifts a bundle of beetle-kill logs onto the truck before transporting them to sawmills on September 24, 2021, at Monarch Pass near Poncha Springs. (Hugh Carey, The Colorado Sun)

And those projects need to be economically viable.

Oregon-based Miller Timber Services, which contracted with the Forest Service to harvest dead spruce on Monarch Pass, is able to sell timber to **lumber mills in Montrose** and **the San Luis Valley**. Smaller trees are sold for local firewood. And Monarch ski area hired the company to remove dead trees this summer.

“If we didn’t have that forest industry and those mills to be able to send this stuff, it would be impossible to do this kind of work,” Lerch said, repeating a mantra among foresters that nearby timber mills are essential for most logging and wildfire mitigation projects.

It’s taken two summers to thin about 466 acres of forest on Monarch Pass. The Miller Timber loggers left last week. Lerch is still tallying final numbers but he estimated his crews have pulled 9,000 tons of timber, or 2.3 million board feet of beetle-killed spruce, off the pass in the past two years. That’s about 53,500 trees.



A Ponsse Bear 8-wheeler cut-to-length harvester machine navigates through the freshly cut forest on Sept. 24, 2021, at Monarch Pass near Poncha Springs. The harvester head is equipped with saws and measuring tools to cut trees one at a time before leaving them on a mat of slash piles as it clears the beetle-kill forest. (Hugh Carey, The Colorado Sun)

The new technology — computerized cut-to-length logging machines that are prevalent everywhere but the U.S. — allows foresters to reach dead timber on steep slopes while protecting the ground to prevent erosion. Each of the eight massive tires on the articulating Ponsse harvester and forwarder machines has a pounds-per-square-inch impact on the ground that is less than that of a mountain bike tire, Lerch said. A winch on the back of the machine keeps them tethered to ridgelines, allowing them to access slopes as steep as 35 degrees.

The light touch of the machines, with slash piled on the forest floor, has limited the amount of debris that flows down the slopes during rain storms and spring runoff. Typical logging operations leave scars that can become rivers of sediment when soaked. That’s not happening on Monarch Pass.

Chuck Rhoades, a research scientist with the Forest Service’s Rocky Mountain Research Station, has been studying erosion below the logging operation on Monarch Pass. So far, he said, “we’ve not seen anything widespread or alarming.”

Hydrologists and soil scientists in the U.S. do not have a lot of experience with these mechanized, Nordic logging machines, so the results of Rhoades' erosion studies, as well as how the logging might reduce the impacts of catastrophic wildfire, could enable more future mitigation in steep terrain, he said.

“If we only treat fuels on flat ground, we are not going to be able to treat many spaces, especially in Colorado,” Rhoades said. “This could allow the Forest Service to think about how this new tool can help the agency be more flexible when it comes to working with steep terrain.”



A head from the Ponsse Bear 8-wheeler machine delimits the trunk and chops the tree at certain lengths on Sept. 24, 2021, at Monarch Pass near Poncha Springs. The harvester head is equipped with saws and measuring tools to cut trees one at a time before leaving them on a mat of slash piles as it clears the beetle-kill forest. (Hugh Carey, The Colorado Sun)

But the technology and on-the-ground impacts of the logging on Monarch Pass — pioneered in the U.S. by Miller Timber Services — are just one way that the project is a model for future forestry management in Colorado's drought-and-beetle-impacted high country. The community support for the project also is a first.

“It’s a convergence of values,” Lerch said. “We are seeing that investment from so many different groups and communities, because it does affect so many people.”

The Monarch Pass project is actually a tiny step in a much larger plan to reduce wildfire risk on more than 20,000 public acres and 10,000 private acres in the Upper Arkansas River watershed. The **Chaffee County Community Wildfire Protection Plan** traces back to a valley-wide planning effort called **Envision Chaffee County** and a voter-approved sales tax in 2018. That tax revenue fills three buckets for investment in forest health and wildfire mitigation, preserving agricultural land and mitigating the impacts of outdoor recreation.

The forest health funding is helping Chaffee County attract a flood of federal money. There’s an alphabet soup of acronyms involved in the now 4-year-old wildfire mitigation effort, which blends local, regional, state and federal agencies, utilities, communities and advocacy groups. The watershed-wide effort to reduce fire risk worked with Colorado State University’s Colorado Forest Restoration Institute to create a map of where mitigation work should focus.

Chaffee County Commissioner Greg Felt called it “our bang-for-your-buck map.”

“If you treat the right 5% of your acreage, we can reduce our risk of catastrophic wildfire by 50%,” he said. “That was a huge realization and really validated by the science.”





Forest stripped of beetle-kill spruce trees with younger trees remaining seen on September 24, 2021 near Monarch Pass. In effort to reduce wildfire fuels, the Arkansas River Watershed Collaborative worked with Miller Timber Services to remove the dead trees using the CTL logging equipment. Early studies show the light-touch logging machines are not creating significant erosion in the headwaters of the Arkansas River. (Hugh Carey, The Colorado Sun)

The community wildfire protection plan, which by 2030 could see \$40 million spent to treat more than 30,000 acres, last year started chipping slash that homeowners piled at the end of their driveways. That program was called Chaffee Chips. The county also started carving fire breaks between forested public lands and neighborhoods, part of the Chaffee Treats program.

Then the National Forest Foundation created the Upper Arkansas Forest Fund to serve as a clearing house of grants and federal dollars for wildfire mitigation work. That fund, directed in part by the county's 35-partner Envision Forest Health Council, has already built fire breaks on Methodist Mountain above Salida, and above the Arkansas River above and below Browns Canyon National Monument.

Last week the Department of Agriculture's Natural Resources Conservation Service's Regional Conservation Partnership Program announced it was investing \$5.7 million in the Chaffee County Community Wildfire Protection Plan, using the Upper Arkansas Forest Fund created by the National Forest Foundation.

And don't forget to add the U.S. Forest Service and Bureau of Land Management to the mix, as federal land managers overseeing all forestry work on federal land. There's also umbrella groups, like the **Rocky Mountain Restoration Initiative** and the Arkansas River Watershed Collaborative adding their letters to the acronym stew as they gather partners to protect water and forests and work beyond all kinds of local and regional boundaries in the headwaters of the Arkansas River

For fans of acronyms and math problems, that recent grant looks like this: USDA + USFS + BLM+ NRCS + RCPP = \$5.7 million for CWPP + ARWC + RMRI + NFF + UAFF.



Arkansas River Watershed Collaborative Lead Forester Andy Lerch discusses the beetle-kill tree harvesting process on September 24, 2021, on Monarch Pass outside Poncha Springs. (Hugh Carey, The Colorado Sun)

This summer Felt flew out to Washington, D.C., to share the border-dissolving wildfire mitigation plan at the National Association of Counties' annual meeting. He titled his talk "Building community through wildfire resilience."

"In a time of, you know, really polarizing politics and difficulty in talking about almost anything without setting people off, when you find something that really resonates across all the partisanship and political lines and can just be viewed as a community challenge we all

need to address, that's the kind of success we need to have right now if we have any hope of returning to a more functional society," Felt said. "Yeah it costs a lot of money, but it speaks to our role as stewards. We are surrounded by 80% public lands. That's an incredible asset but also an incredible responsibility and we need to do our part."

The effort through large groups like the Rocky Mountain Restoration Initiative is stirring more communities to look beyond borders for statewide solutions to forests withering with declining precipitation and spiking temperatures.

"Chaffee County is creating the model and a lot of other communities are looking at that," said Marcus Selig, the vice president of field programs for the National Forest Foundation and a longtime Salida resident.

The \$5.7 million grant will be matched one-to-one, so at least \$11 million will be invested in wildfire mitigation on public and private land above the Arkansas River in the next several years, Selig noted.

"If we can't make it work here in Chaffee County, with all these things lined up and all these partners at the table and the community support and the different funding sources and a fantastic execution plan," he said, "we may not stand a chance."