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## Idaho Press

### Land managers: thinking about climate, wildfire is changing how we manage the west's land

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A clear blue sky hangs over a Boise County mountain side in this October 2023 file photo. Attendees at the 2023 Western Governors' Association's Decarbonizing the West panel spoke of the challenges of wildland management due to climate change during the event held Tuesday and Wednesday, Dec. 12-13, 2023, in Boise.

[Brian Myrick / Idaho Press](#)

When it comes to forests and grasslands management, carbon used to be one of the last things on people's minds.

For decades, conventional wisdom has said that conserving an ecosystem means leaving it alone, only intervening when a fire comes along.

However, that idea ran in stark contrast to Native American practices, as many tribes in the west seasonally burned the landscape for a variety of reasons, including stimulating the growth of edible food plants and improving habitat for the big game they hunted.

Now, the west is grappling with the consequences of leaving a fire-adapted ecosystem to its own devices for more than a century. Fueled by an overgrowth of woody materials, its forests, great at naturally storing carbon, are burning more frequently, at hotter temperatures, affecting greater swaths of land.

"These are forests that are adapted to fire," said Katharyn Duffy, director of science operations for Vibrant Planet, a company that is developing software to inform landscape management decisions. "We have essentially removed fire from these ecosystems such that we have an overstocking of carbon in a lot of these forests that is now susceptible to be volatily released and have all of those downstream effects."

"We've seen the results of 'do nothing' actions, and we usually breathe it for three months in the summer in the west," said Jim Elbin, an administrator with the Idaho Department of Lands.

Duffy and Elbin made their comments during a panel for the Western Governors' Association's Decarbonizing the West initiative, held Tuesday and Wednesday in Boise. The "Balancing Carbon Stewardship Management Goals" panelists discussed how carbon management in forests and grasslands complements improving resilience and biodiversity and reducing the risk of wildfires in Idaho and other western states.

## **FROM PASSIVE TO ACTIVE MANAGEMENT**

Humans have yet to design and implement technology on a wide scale that can sequester carbon. Trees and plants, on the other hand, do so just by living, taking in carbon dioxide, a gas, and converting it to sugars as part of photosynthesis.

"I'm wary of simple solutions, but I think you hear this mantra over and over because it's pretty true: keeping forests as forests is probably the simplest, most easy thing we can do that's going to have all of those carbon benefits right off the bat," said Matt DiBona, a biologist with the National Wild Turkey Federation.

When trees are cut, carbon is released back into the atmosphere, so avoiding cutting trees is important in the overall scheme of slowing climate change. But the calculus is not always that simple in the west's overgrown forest ecosystems, in which a fire ripping through can kill trees, unleashing large quantities of carbon.

For example, though it might create carbon emissions to thin a forest in the short term, the long-term effect of doing so might impart the forest with

some resilience, allowing it to not burn as catastrophically when a fire comes along.

DiBona said it's about playing the carbon long game.

"Habitat management is messy, and we need to tolerate and understand that we're going to have some short-term emissions because in the long term, we're going to realize much bigger gains," he said.

Vibrant Earth, Duffy's company, uses software to help land managers weigh the impact of different land management strategies considering factors such as the likelihood an area will burn, and at what intensity. From there, land managers can calculate the cost of a small prescribed burn versus a small diameter thinning project and decide how to proceed, Duffy said.

"I think we all recognize that sometimes there's an initial upfront cost in how we're approaching carbon management," Duffy said. "We need to do those fuel reduction treatments that remove carbon from the ecosystem, but the benefits pay off over a longer period of time as we reduce the risk of unintended consequences happening from a wildfire."

## **FOCUSING ON EDUCATION, BENEFITS OF CARBON-RELATED EFFORTS**

Panelists emphasized that managing forest and grassland ecosystems with carbon in mind can have a positive impact, and they agreed that land managers need to use messaging that showcases the benefits of such efforts.

For example, a forest thinning project in Coconino National Forest in Arizona is working to create natural firebreaks and protect water and hydropower infrastructure for that region, DiBona said.

“We’re checking off multiple boxes where we’re improving watershed health, improving forest health, and reducing the risk of wildfire,” he said.

Forestry jobs are an economic lifeline for much of the rural west, Elbin said. Efforts to reduce fuels in forests and grasslands to healthier levels have the potential to bolster local economies, DiBona said.

“Forest products are a good thing,” DiBona said, adding that supporting the industry requires “that workforce (and) the mills that are going to be able to (process) that low-grade material.”

But he acknowledged the negative perceptions many people have of forestry-related management — that it’s about making money, not ecosystem health.

Changing people’s minds requires focusing on long-term ecosystem benefits of management activities. For example, an area that underwent a “patch cut” might not look pretty in the short term, but it will have a positive impact over time, DiBona said.

“If you go back to that area after five, 10, 15 years, and you see the vegetation response, the wildlife response, that’s a big connection, because people assume that the only reason you’re cutting trees (is for money),” DiBona said. “I don’t think that’s why we’re cutting trees anymore,

right? We're still trying to get those forest products, but ... we're trying to do it to improve forest health."

Elbin said that during his career with the Idaho Department of Lands, he has "watched us get on board with where the science and technology has taken us in our management actions, and it has made a huge difference in what we do — it's just continuing to tell that story."

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