



OSU finds ways to slow wildfires in critical sagebrush rangelands

By ALEX BAUMHARDT Oregon Capital Chronicle

Nearly 45% of historic sagebrush ecosystems in the Great Basin — 200,000 square miles of California, Idaho, Nevada, Oregon, Utah and Wyoming — have been lost to invasive plants, grasses and wildfires, according to the federal Bureau of Land Management.

To slow the frequency and severity of such fires, scientists at Oregon State University undertook a 10-year study of the longterm effects of popular fire prevention and mitigation methods to see which ones were successful over many years, and which only had short-term impacts.

In a new report published in the scientific journal Ecosphere, those scientists concluded that thinning vegetation across the sagebrush landscape was the most effective, long-term method for mitigating wildfire spread and severity. Other methods, such as prescribed burns and the use of herbicides to kill nonnative grasses and invasive tree and shrub species were only effective in the short term.

The OSU scientists teamed up with specialists from Great Basin states, including Eva Strand, a professor of rangeland ecology and management at the University of Idaho. She said studying this over a decade gave scientists a broader perspective.

"A treatment might be





Mitch Maxson/The Nature Conservancy

To slow the frequency and severity of such fires, scientists at Oregon State University undertook a 10-year study of the long-term effects of popular fire prevention and mitigation methods to see which ones were successful over many years.

followed for a couple years, but there's no looking at the long-term response," she said. "With this, we could see for how long these methods are effective in mitigating wildfire."

The scientists didn't ignite fires but used computer models to study how each treatment — thinning, herbicides or prescribed burns — could impact the speed of a fire's spread and the height of the flames. In their study, the scientists found that herbicides left behind dead vegetation that could create hotter fires with higher flames. They found prescribed burns were effective short term, but long term, invasive grasses quickly returned and reestablished themselves, creating a greater fire risk.

Strand said their findings will also impact firefighter safety in a wildfire. "We were able to model how they actually impact fire behavior," she said. "We can tell which methods create shorter flame lengths, so firefighters can approach it in a different way."

Oversight by BLM

The bulk of sagebrush ecosystems in the Great Basin are overseen by the BLM, which is currently involved in a project to create fuel breaks along 435 miles of roads throughout sagebrush habitat along the Oregon-Idaho-Nevada border in the Great Basin. These are areas where the BLM is reducing vegetation like grasses and trees in order to reduce the probability of a fire spreading and growing in height.

The scientists hope their research can inform the methods the agency adopts to create those fuel breaks.

"We need to be implementing strategies that preserve our good-condition sagebrush steppe areas and get ahead of this invasive grass and fire feedback cycle that we're in," said Lisa Ellsworth, lead author of the study and a range ecologist at OSU, in a statement.

Ellsworth said that sagebrush ecosystems are among the most fragile ecosystems on the North American continent.

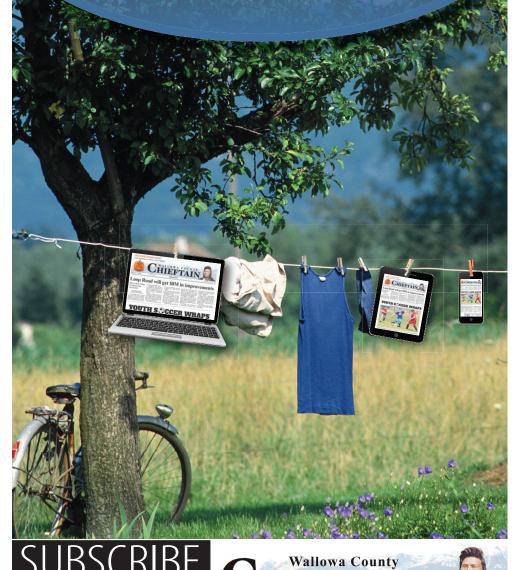


(and in print!) Our e-Edition is available 24/7 on any device everywhere you are

• iPad • iPhone • iPod Touch • Android • Kindle All apps are free to download. Must be a subscriber to view e-Edition.

amazon

Available on the ANDROID APP ON Google play



541-426-4567

wallowa.com

Curb cuts matter.

Being able to move around freely in our communities matters to our health and well-being. Healthy places have curb cuts in sidewalks, which make movement easier for those of us who use wheelchairs or strollers – or will use them someday. Curb cuts are just one example of how healthy places lead to healthier lives.

Discover more at: PlaceMattersOregon.com

