

## The Sage-Grouse Conservation (SageCon) Partnership Invasives Initiative: Hot on the Horizon in Oregon's Rangelands

*The wildfire and invasive fuels problem will not be solved in silos around the West, the SageCon Invasives Initiative was launched with Oregon partners to strategically link local and regional invasive grass efforts.*



*The Boxcar Fire in 2018 burned over 100,000 acres near Maupin, OR. Photo Courtesy of Bing Bingham, Ashwood-Antelope Rangeland Fire Protection Association.*

For fires to burn, a triangle of factors must align from spark to flame to ash. Whether fire takes the form of a wildfire stampeding across rangelands or flames in your backyard barbecue, the three ingredients are the same: fuel, oxygen, and ignition.

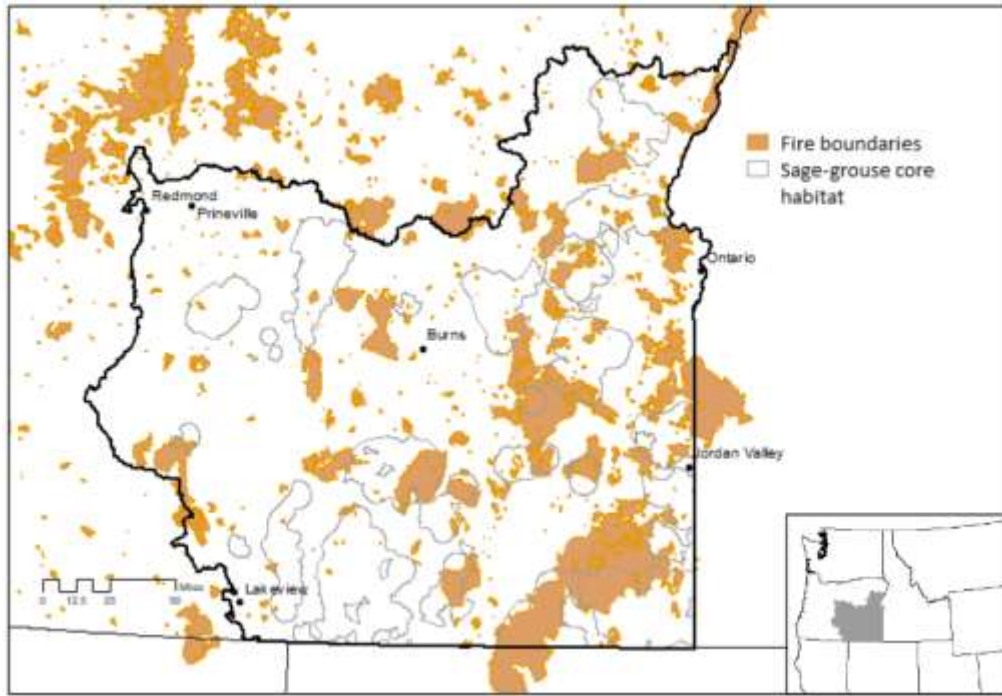
Many Americans know Smokey Bear and identify fire in the American West with its forests. What folks living outside the Great Basin may not know is just how much sagebrush rangeland is being burned. This is because when it comes to the key fire element of fuels, conditions don't get much more flammable than invasive annual grasses in the summertime. And unfortunately, the expanse and density of connected mats of non-native invasive annual grass fuel continues to grow across the American West at an alarming rate.

So, whether you ask if we have a fire problem or a fuels problem? The answer is yes. The fire problem is the fuels problem, and the fuels problem is the fire problem.

In Oregon, a collection of partners committed to the conservation of sage-grouse, rangeland habitat, and rural community vitality has kicked off an effort focused on invasive annual grasses. The SageCon Invasives Initiative is betting that by weakening one leg of the fire triangle (fuels), benefits will flow in the form of reduced wildfire impacts, wildlife habitat improvement, and rangeland values that are key to ranchers and rural communities.

### **Oregon's Wildfire AND Invasives: A Devastating Tag-team**

The year 2012 saw over one million acres of Oregon's sagebrush habitat burn in less than a month, followed by another 500,000+ acres in 2014. More recently, and unlike the experience of its neighboring states, the area of Oregon rangelands burned since 2014 has been much lower, coinciding with a renewed focus on sagebrush ecosystem health, sage-grouse, and wildfire protection operations. The year 2015 marks the most recent federal Endangered Species Act listing review for sage-grouse and the State's corresponding release of its Sage-Grouse Action Plan, decisions to turn up the investments in Oregon's [Rangeland Fire Protection Associations \(RFPAs\)](#), and concurrent increases in RFPA volunteer numbers, activity, and collaboration with the Bureau of Land Management, which manages the vast majority of Oregon's public rangeland.



*Fires have burned more than three million acres of Oregon rangelands since 2000, including large areas of important sage-grouse core habitat and several places with multiple re-burns due to invasive annual grass fuels.*

Through increased focus on initial attack, RFPA fire operations have been effective in activating response capacity--paired with a few years of good luck in weather and wind, Oregon has seen recent declines in rangeland fires. However, one thing remains clear; though burned acreage has decreased, fuel levels have not.

Its common practice for people to speculate around past and upcoming wildfire seasons (how big, how frequent, how many). Its less common to consider all the variables in the underlying fuel conditions (how much grass, what kind, how wet, how widespread). When invasive grasses dominate the fuels, the wildfire expanse, rate of growth, and overall impacts will be higher, and this in turn makes way for the spread of more invasives. So addressing only the fire operations side of management without addressing the fuel loading from invasive annual grasses is like improving testing and emergency response capacity in anticipation of an influx of pandemic patients but not curbing the spread of infection.

“It is essential to both prevent and control Invasive Annual Grasses and other invasive weeds to protect valuable natural resources, such as sage-grouse. To be effective we need to better understand the distribution of these invasive weeds so core habitat areas can be protected. By keeping the invasive weeds from becoming established or at low populations, flattening the invasion curve makes the best use of limited available funding.”

***Tim Butler, ODA Noxious Weed Control Program Manager***

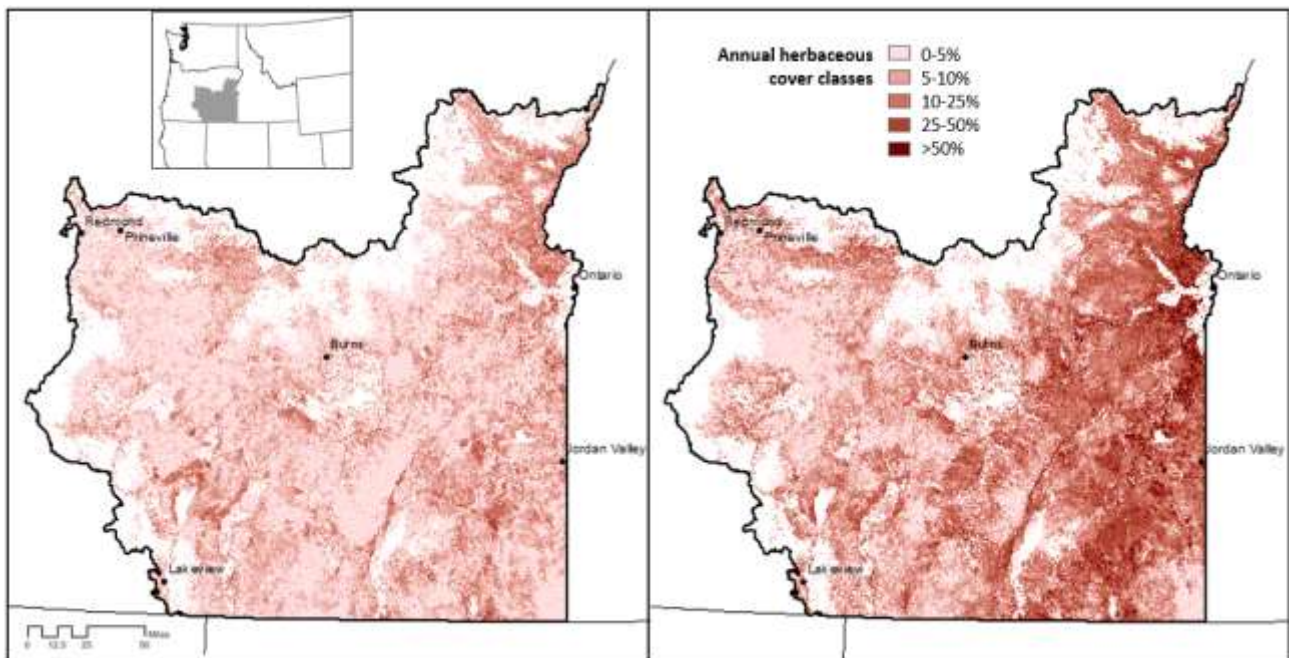
### **A Lot at Stake**

Sagebrush rangelands cover approximately one-third of Oregon and support rural communities and ranching operations, wildlife habitat for an estimated 350 species, limitless horizons and scenic beauty, and recreation across millions of acres. This sagebrush ecosystem is increasingly at risk from invasive annual grasses that aggressively invade and replace native species. Invaded communities lose the quality of habitat for wildlife, reduce the amount of reliable year-round forage for livestock, and increase the chances of large wildfires. These invasive annual grasses also benefit from fire and increasingly replace native vegetation through a cycle of expanding invasion and repeated wildfire. This is not just an Oregon story but one that is remaking the face of the American West.

Mega-fires like Oregon saw in 2012 (including the [Long Draw/Miller Homestead Fire](#) which burned more than 700,000 acres) and 2014 were historically rare in rangelands. But large amounts of highly flammable invasive

grass fuel are now present throughout much of the landscape. Under dry and windy conditions, rangeland fires fueled by invasives can travel up to 14 miles per hour, putting lives, infrastructure, livestock and wildlife at risk. According to [vegetation composition maps](#) of Oregon rangelands, an estimated 5.1 million acres are moderately to severely invaded by annual grasses, with millions more acres at risk. There are 2.9 million of those invaded acres located in watersheds identified with a high likelihood of wildfire in a 2019 [wildfire risk assessment](#) for the Pacific Northwest. Adjacent to these invaded areas are remaining intact areas of healthy vegetation and habitat at risk of further expansion of invasive species. If not addressed, the vicious cycle of annual grass invasion and wildfire will continue to spread across the landscape, reducing the sustainability of ranching communities, impacting recreation and tourism, and destroying wildlife habitat for many species.

To combat invasive species, a wide range of partners have been applying herbicide treatments to reduce invasive grass cover and re-seeding invaded areas with perennial grasses in an effort to improve rangeland condition. Invasive-focused projects have included large treatment areas following wildfires, managed grazing and treatments that span land ownership boundaries, and use of technology and research to improve restoration success. Though many projects have been completed on the ground, we know the pace and scale of invasive expansion is such that we are not keeping up.



*The spread of invasive annual grass species has affected broad areas of sagebrush rangeland in Oregon. The map on the left shows annual grass & forb cover from 1984-1988 and the map on the right shows annual grass & forb cover from 2015-2019. Source: [Rangeland Analysis Platform](#), 2020. Areas shown in white are non-rangeland vegetation (forest, agriculture, playa, etc).*

### **The SageCon Partnership Invasives Initiative**

Sage-grouse narrowly averted an [Endangered Species Act listing in 2015](#). The iconic bird of the West is dependent on intact sagebrush ecosystems and continues to be negatively impacted by both invasive grasses and large fires. The [SageCon Partnership](#) formed in 2012 in order to advance a state-based, collaborative response to the potential ESA listing decision that rests upon a landscape scale approach across ownership boundaries. That response takes the form of the [Oregon Sage-Grouse Action Plan](#) and plans from federal agencies such as the Bureau of Land Management, local county planning, as well as voluntary landowner commitments. SageCon uses collaborative governance structures and working groups networked into local capacity in order to promote continued coordination around implementation.

The urgency of the invasive annual grass problem and what's at stake led SageCon to launch an Invasives Initiative to strategically address the invasive annual grass threat in Oregon rangelands through a coordinated,

cross-boundary approach that prioritizes efforts, amplifies what's working, fills gaps, and addresses barriers to reducing invasive species and increasing rangeland health. The Initiative involves a diverse range of partners, including federal and state agencies, local weed management entities, tribes, researchers, conservation and ranching interests, and state's sage-grouse Local Implementation Team leads. Because the problem of invasive annual grasses and wildfire is so large and seemingly intractable, the Initiative began by interviewing local practitioners working to combat invasives across Oregon rangelands to identify barriers from their perspective.

"Hearing a broad range of perspectives from those working in the field to combat invasives was essential in taking on a problem this big and complex and shaping the Invasives Initiative into an effort that has real impacts on the ground." **Megan Creutzburg, SageCon Technical Coordinator** who conducted interviews for the [Barriers to Management of Invasive Annual Grass in Oregon: Survey of SageCon Partners Implementing Invasive Grass Management in Oregon](#).

Following the lead of the [Idaho Cheatgrass Challenge](#) and other regional efforts, SageCon is adopting the strategy of "Defend the Core, Grow the Core, Mitigate Impacts". This strategy is based on a landscape-wide view that acknowledges that the most effective strategy for tackling invasives emphasizes proactive management in areas that are still relatively intact and dominated by native species, or "core". Of highest priority is defending these intact areas by keeping invasives out using widely accepted techniques such as Early Detection and Rapid Response (EDRR), with relatively minimal cost and effort. From there, growing the core into adjacent invaded areas strategically increases the large blocks of intact habitat across broadening areas. In addition, mitigating impacts of invasion and frequent wildfire in highly invaded areas will continue to occur where needed. This strategy is designed to increase the awareness of the issue and encourage proactive, strategic, landscape-scale efforts.

The SageCon Invasives Initiative is organized around the following priority focal areas led by working groups representing multiple partner organizations:

- ❖ **Geographic strategy:** Central to the Invasives Initiative is the development of a geographic strategy to identify opportunity areas on the landscape and prioritize efforts. Oregon is developing a geographic strategy map that identifies intact, transitioning, and invaded areas, which will be used to communicate the landscape-scale vision of the Initiative and support locally-led coordination and project implementation.
- ❖ **Funding:** Given the vast scale of the problem, funding for invasive annual grass work has been continually low, particularly for some of the interventions that are most successful (e.g., EDRR). This group is working to increase the level of investment in the invasive annual grass and wildfire problem; improve the coordination and leveraging of dollars across state, federal and local levels; and advance funding toward strategic, landscape-scale, cross-boundary projects.
- ❖ **Grazing flexibility:** The most common barrier to invasive annual grass management cited by SageCon partner interviewees was the lack of adequate flexibility to manage livestock for improved rangeland condition. This group is working to advance actions that provide livestock operators more flexibility to rest certain areas when needed for rangeland health (e.g., post-wildfire and drought response, required grazing rest for restoration projects) as well as actions where range management can address situations of excess forage (and excess fuel for wildfire).

In addition to the three primary focal areas, the SageCon Invasives Initiative is also tracking work in related areas, including seed technology improvement, native plant material development (involving farmers, ranchers, tribes and others), and local capacity-building. While workgroups do not yet exist tied to these specific areas, by tracking them intentionally, the Initiative intends to be poised to amplify, assist and integrate opportunities.

For more information, visit the [SageCon Partnership website](#) or reach out to our SageCon Partnership Team:

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