

Conserving Sagebrush and Great Plains Grasslands

**A FRAMEWORK FOR CONSERVATION ACTION
2021-2025**



Working Lands for Wildlife

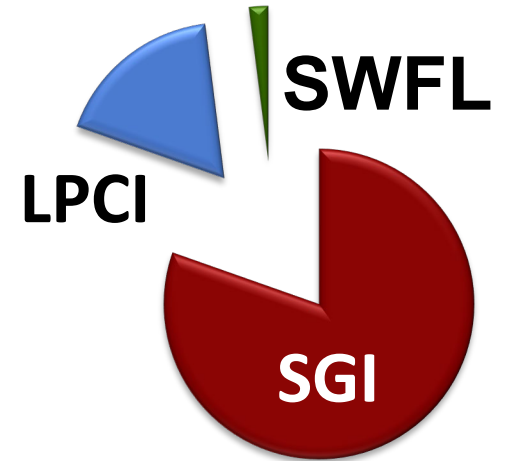
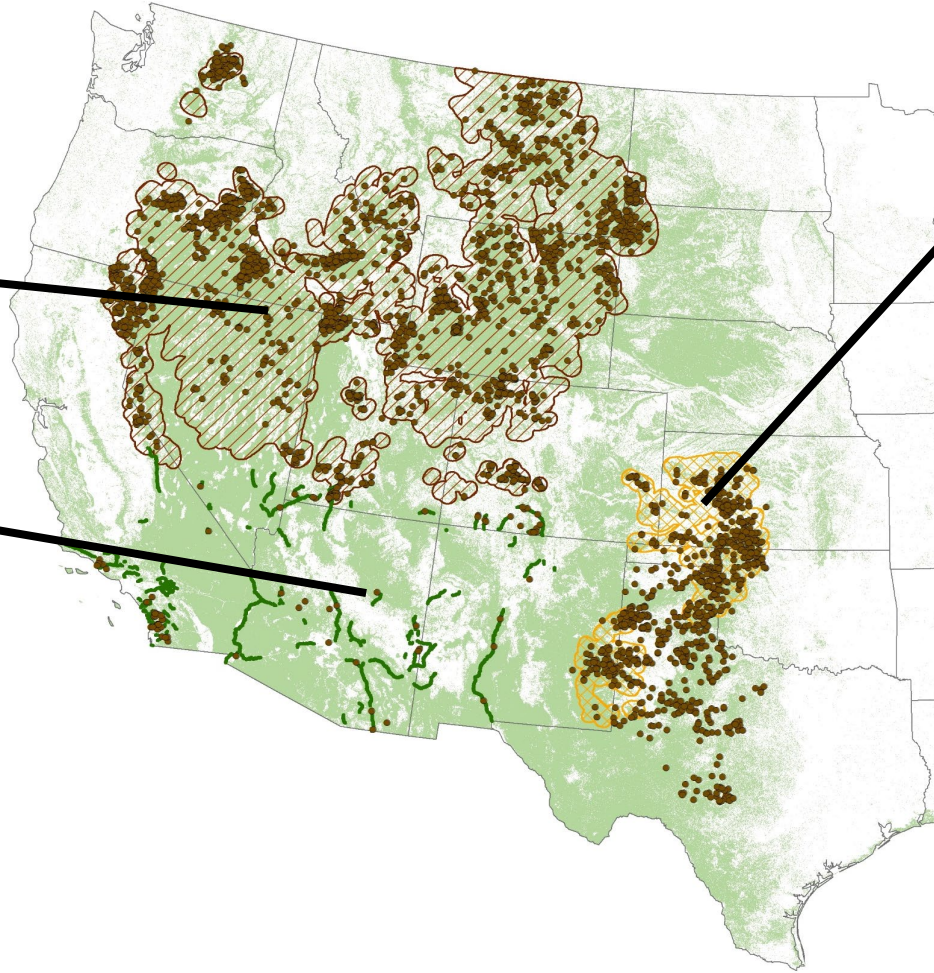
Shared Vision: Wildlife conservation through sustainable agriculture

1. Remove threats to wildlife and improve sustainability of working lands
2. Implement enough of the right practices in the right places to benefit populations
3. Assess effectiveness, quantify benefits, adapt program delivery, and tell the story

To date 8,800 private landowners have enrolled to conserve >10.4M acres in the US



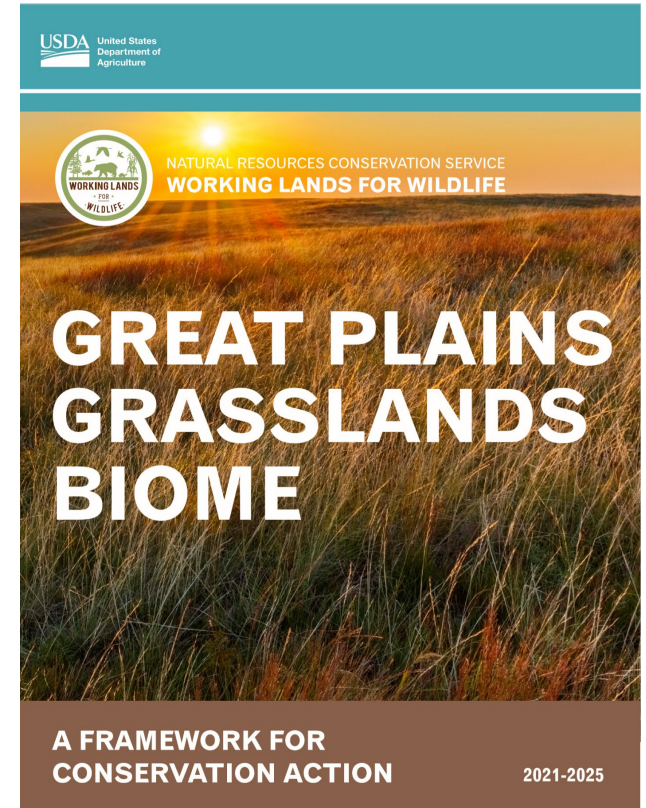
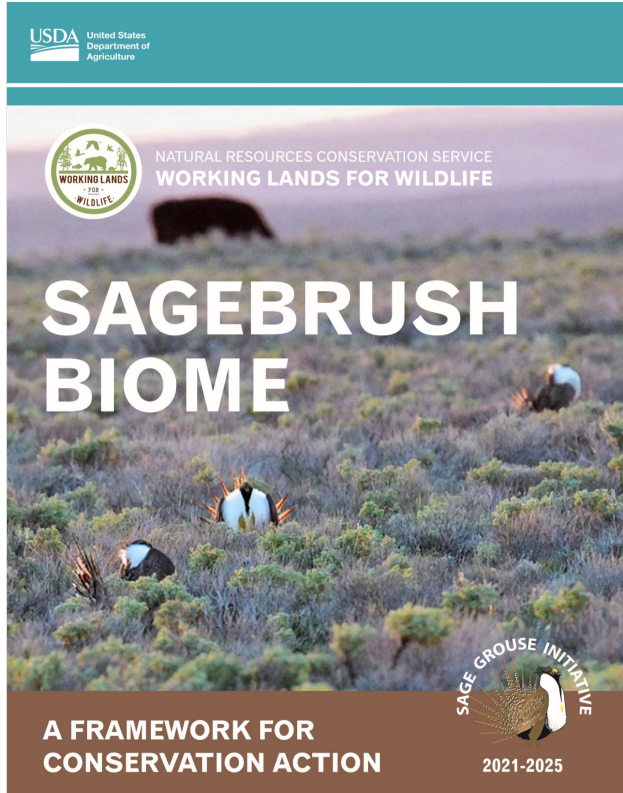
Past Focus on the West



Where we are going

- ✓ **Leadership Kickoff Meeting June 2020**
State Conservationist support and team selection
- ✓ **Technical Sessions July 2020**
Prep NRCS States for breakout with their staff and partners
- ✓ **State-level Meetings led by States July-Oct 2020**
NRCS-led meetings with partners to develop individual State contribution to broader framework
- ✓ **Creation of Biome-wide Frameworks Feb 2021**
WLFW Team aggregates State contributions and provides regional context for actions
- ✓ **Public Roll-out and Distribution March 2021**





Conservation Frameworks



Conservation in Great Plains Grasslands

Temperate grasslands are among the world's most imperiled ecosystems. Yet, some of the world's largest remaining and most intact grasslands exist in the Great Plains. The Sandhills grasslands of Nebraska are the 2nd most intact "true" prairie ecoregion in the world, behind the Mongolian-Manchurian steppe. These types of working grassland regions, embedded within an intensively managed agricultural matrix, provide a factory for US beef, migratory species, grassland songbirds, and upland game hunting - all of which benefit rural economies.

Conservation in the Sagebrush Biome

The sagebrush biome is one of the largest habitat types in North America, spanning 175 million acres in 13 western states and two Canadian provinces. Land tenure is a patchwork of public, Tribal and private lands, with many of the most productive and well-watered valley bottoms in private ownership. WLFW continues to capitalize on sage grouse as a biome-wide focal species for its wide-ranging distribution, diverse seasonal habitat needs, and sensitivity to threats impacting working lands. Maintaining vibrant rural economies in these landscapes results in the multi-generational legacy of stewardship and ranching culture on which sagebrush-reliant wildlife depend.



<https://wlfw.rangelands.app/>



Biome Perspective



Local Actions

Frameworks facilitate linkages to other regional efforts





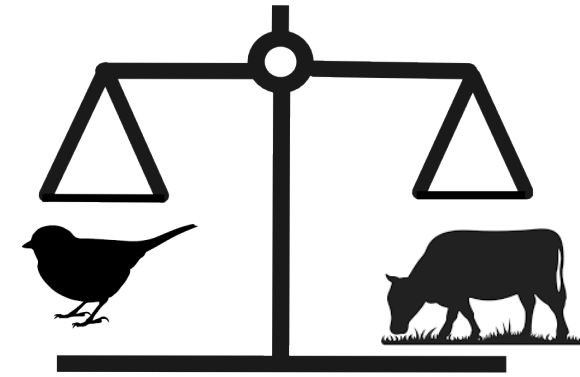
- In the West, 70% of all land is rangeland
- 2/3 of this rangeland is privately owned, encompassing the most productive grass and shrublands west of the Mississippi River

Working in the 'Sweet Spot'



Conservation Outcomes

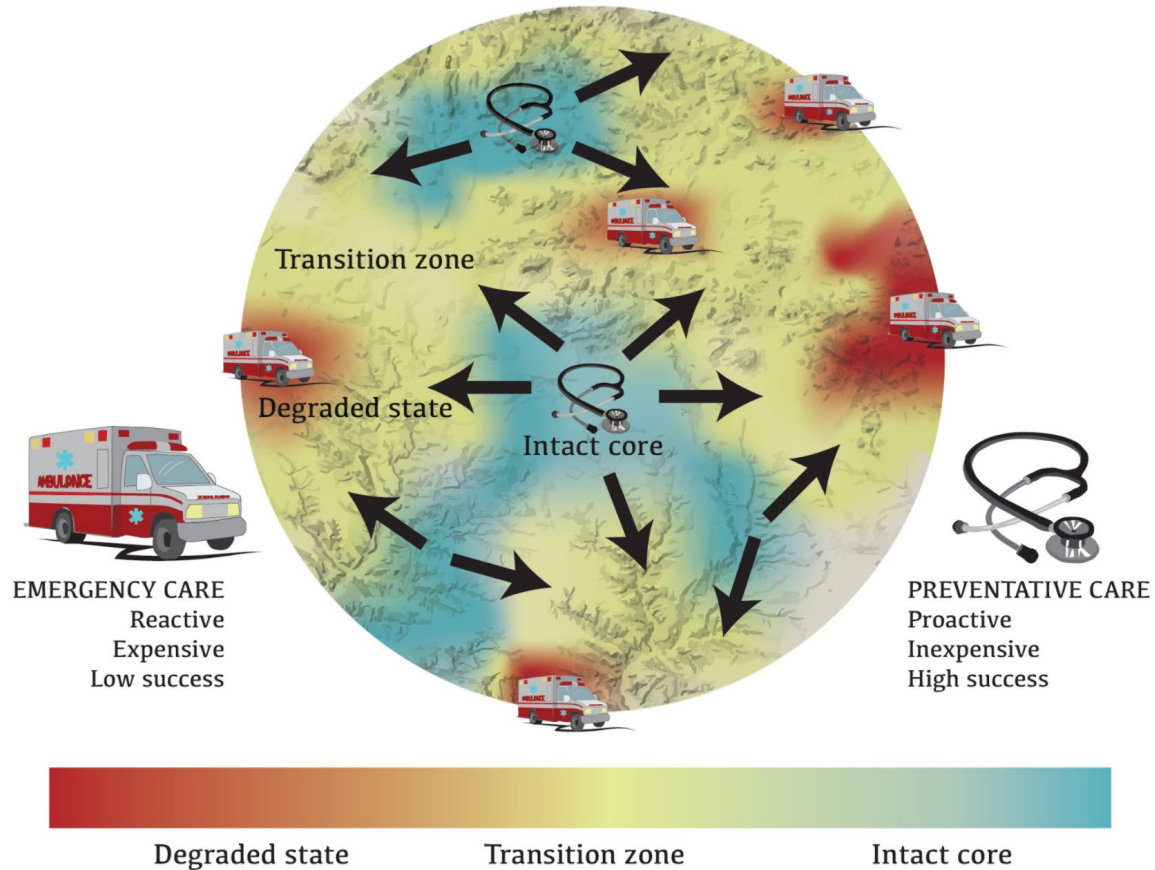
**Merriam.—Outcome (n.)
the way a story turns
out; a consequence.
Syn. Upshot, effect,
conclusion**



**Wildlife and ranching outcomes
equally important**

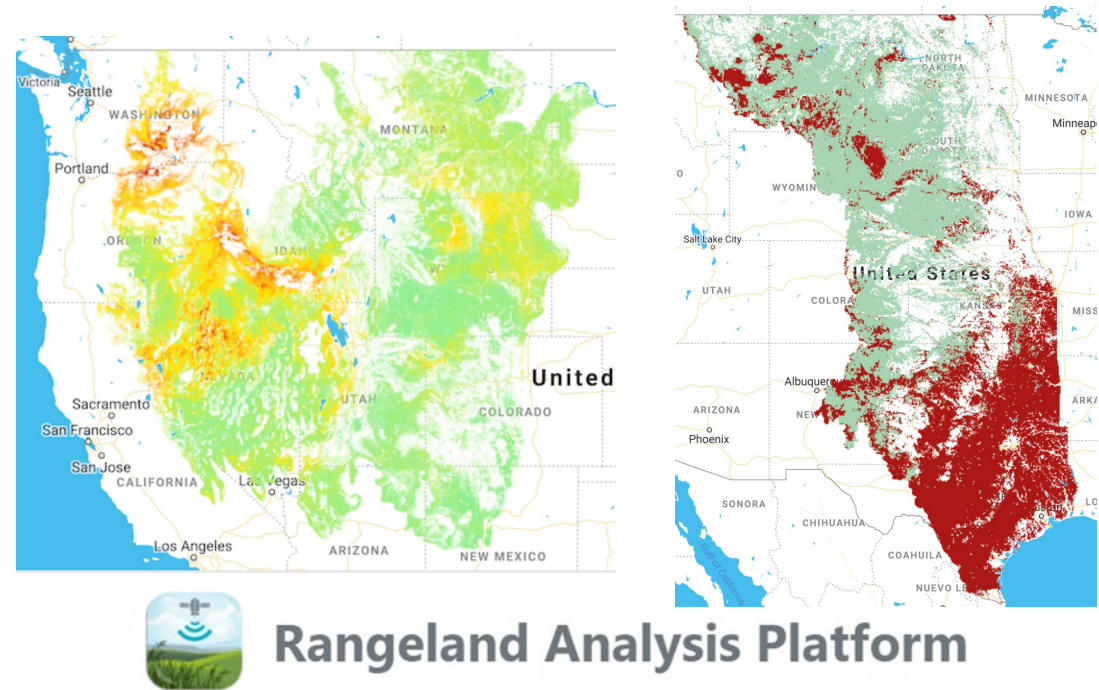
Incorporating latest science and technology

Approach



Credit: USDA-NRCS, Working Lands for Wildlife

Spatial Data



Latest science and technology

Scientific Rationale

Across the western U.S., working rangelands are a primary driver of healthy rural communities and abundant wildlife. While seemingly endless, rangelands are being lost at an alarming rate to land use conversion, woodland expansion, invasive grasses, and dewatering of mesic sites. An ever-growing list of imperiled grassland and shrubland species reflects the continued loss of more than a million acres of working rangelands annually.¹

1. Cropland expansion in the United States produces marginal yields at high costs to wildlife

Recent expansion of croplands in the United States has caused widespread conversion of grasslands and other ecosystems with largely unknown consequences for agricultural production and the environment. Here we assess annual land use change 2008–16 and its impacts on crop yields and wildlife habitat. We find that croplands have expanded at a rate of over one million acres per year, and that 69.5% of new cropland areas produced yields below the national average, with a mean yield deficit of 6.5%. Observed conversion infringed upon high-quality habitat that, relative to unconverted land, had provided over three times higher milkweed stem densities in the Monarch butterfly Midwest summer breeding range and 37% more nesting opportunities per acre for waterfowl in the Prairie Pothole Region of the Northern Great Plains. Our findings demonstrate a pervasive pattern of encroachment into areas that are increasingly marginal for production, but highly significant for wildlife, and suggest that such tradeoffs may be further amplified by future cropland expansion.

Lark, T.J., S.A. Spawn, M. Bougie, and H.K. Gibbs. 2020. Cropland expansion in the United States produces marginal yields at high costs to wildlife. *Nature Communications* 11:4295. <https://doi.org/10.1038/s41467-020-18045-z>

RANGELAND CARBON



12%

of global terrestrial carbon stocks are in rangelands

13% C stored in plants

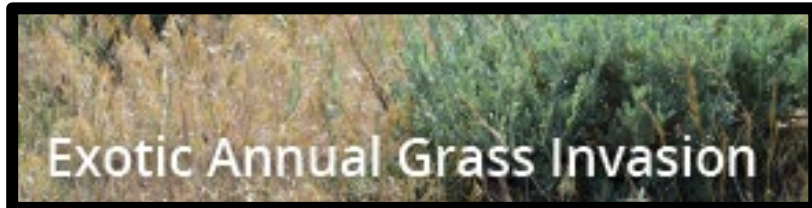
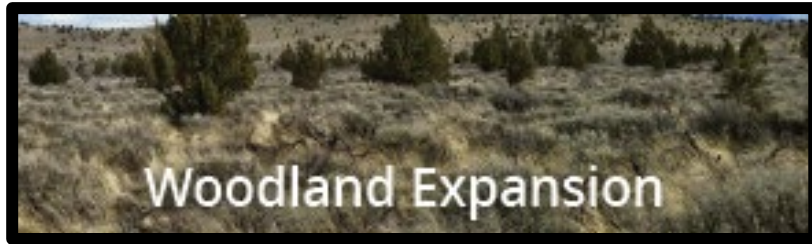


87% C stored in soil

Climate benefits woven into Frameworks

- Climate-smart mitigation action for rangelands is Avoided Conversion of Grasslands and Shrublands
- Bolstering rangeland resiliency enables the land to adapt to changing environments

11.5 Million Acres (5-year goal)



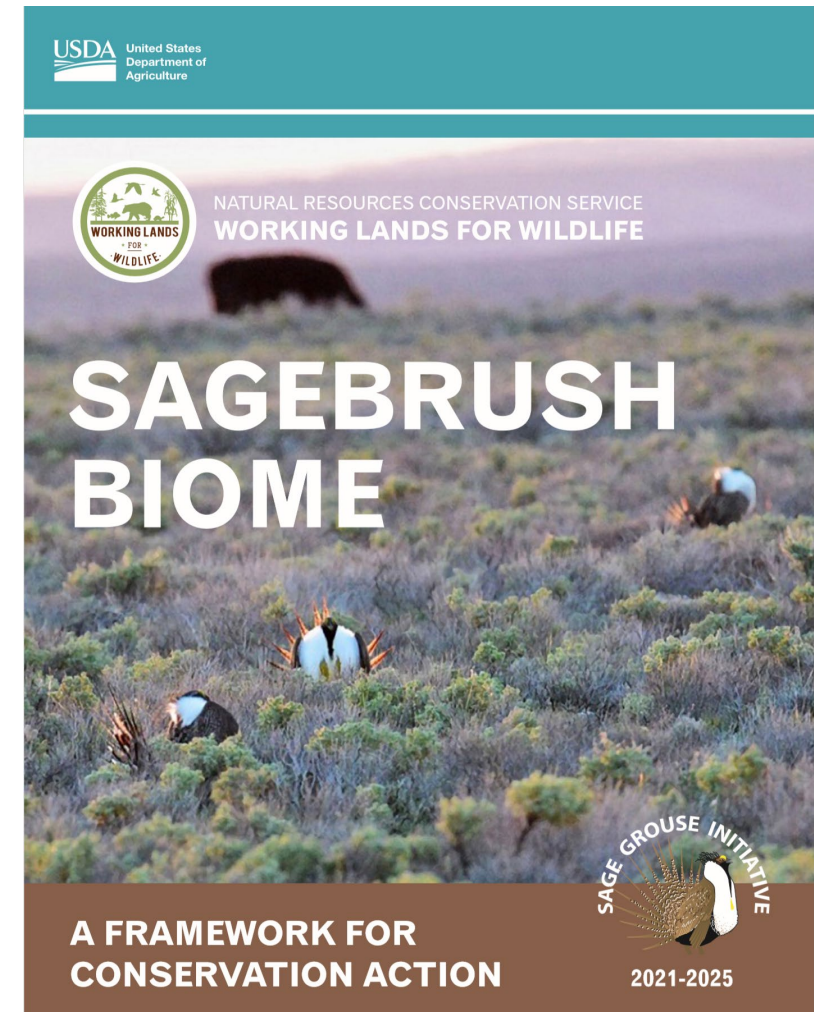
USDA United States Department of Agriculture

WORKING LANDS FOR WILDLIFE

NATURAL RESOURCES CONSERVATION SERVICE
WORKING LANDS FOR WILDLIFE

GREAT PLAINS GRASSLANDS BIOME

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SAGEBRUSH BIOME

A FRAMEWORK FOR CONSERVATION ACTION

SAGE GROUSE INITIATIVE

2021-2025



Thank you for your partnership!

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