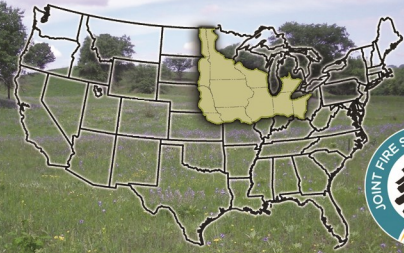


# Tallgrass Prairie and Oak Savanna Fire Science Consortium

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM

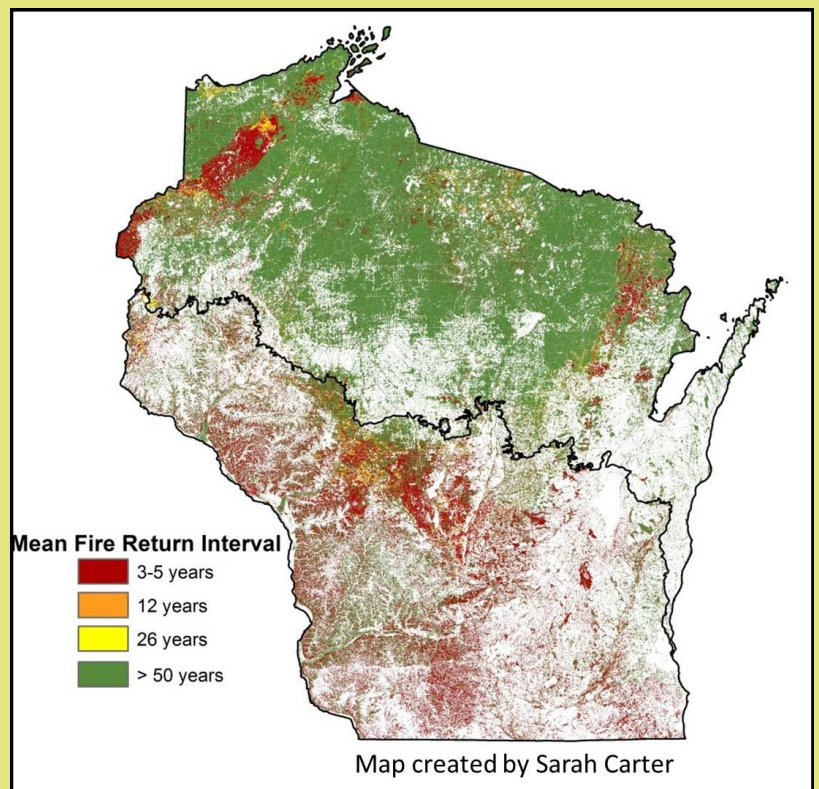


## What are the priority areas for prescribed fire in Wisconsin?

Land managers know that fire was a historical disturbance in Wisconsin, but the use of prescribed fire for ecosystem management is limited on the modern landscape. Challenges to using prescribed fire may include limited funding and staff, conflicts with urban development, or the lack of landscape scale information regarding prescribed fire. Currently there is no resource for the state that documents how frequently prescribed fire should be applied to ecological communities or how much of the landscape would need to be managed with prescribed fire on an annual basis to maintain desired conditions. Understanding where prescribed fire is beneficial to the ecosystem, or supports existing conservation efforts, can help land managers identify priority areas for burning. Also, identifying how much, where, and how often prescribed fire is needed in Wisconsin can increase awareness and funding for prescribed fire implementation and research.

**To answer the question of where to use prescribed fire**, the Tallgrass Prairie and Oak Savanna Fire Science Consortium has partnered with the SILVIS Lab at UW-Madison and the Lake States fire Science Consortium to conduct a Fire Needs Assessment (FNA) for Wisconsin. This project used LANDFIRE vegetation data ([www.landfire.gov](http://www.landfire.gov)) to identify where vegetation is located and the fire return interval of community types.

**To identify priority areas for prescribed fire** we did a cost-benefit analysis focused on vegetation with a fire return interval less than 50 years. We then incorporated additional spatial data sets to assess the benefits, effort, and challenges associated with prescribed fire. The Wildlife Action Plan and community rarity were used to determine where the benefits of prescribed fire are greatest. We also incorporated non-ecological factors, like the effort needed to maintain these communities and challenges to using fire on the landscape (i.e., Wildland Urban Interface). In taking this approach we hope to identify areas where there is potential for successful long term management with prescribed fire.



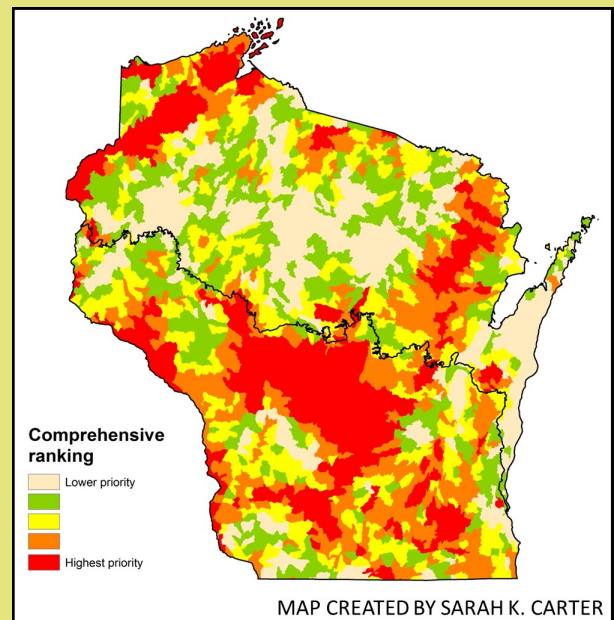
# Tallgrass Prairie and Oak Savanna Fire Science Consortium

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



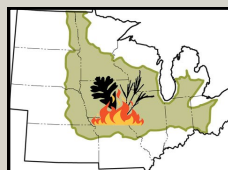
**We found that the highest priorities for management with prescribed fire** occurred in central Wisconsin, in the Northwest barrens, along the lower Wisconsin River, and in the northeast. These areas reflect where high concentrations of rare communities with frequent fire return intervals occur and the challenges associated with applying prescribed fire in the Wildland Urban Interface are minimal.

**Given that this is an initial attempt** at identifying priority areas for using prescribed fire we encourage land managers, conservation planners, and fire practitioners to work with the Consortium to improve upon this product. This landscape scale analysis can be used as the starting point for fine scale analyses of local conditions, or could be incorporated into other regional planning efforts to represent where fire may be necessary.



## Contact us to learn more

The Fire Science Consortium encourages the use of this product and would be willing to work with individuals to describe our methods and provide data for additional analyses. If you are interested in working with the Consortium, please contact Tracy Hmielowski via e-mail [thmielowski.tpos.firescience@gmail.com](mailto:thmielowski.tpos.firescience@gmail.com)



## Potential use for this information

- Identifying regions for increased private landowner outreach
- Determining where prescribed fire alone will not restore desired conditions, but additional restoration tactics could be used
- Setting goals for prescribed fire use in regions where fire dependent communities are located
- Highlighting the fire dependent communities and barriers to prescribed burning in a region where fire is often overlooked