



FACT SHEET

# From Research to Resilience

## Fire Science in Practice

The Fire Science Exchange Network (FSEN) is a knowledge exchange organization funded by the Joint Fire Science Program. It is made up of 15 regional exchanges across the United States. Collaboration among fire managers, practitioners, and scientists allows each exchange to:

- Bridge the gap between science and management
- Implement research findings on the ground
- Facilitate active knowledge exchange between participants

*This fact sheet celebrates the work of the FSEN by featuring five stories that highlight the societal impacts of the exchanges' work on the ground.*

### The 5 Societal Impacts\*

#### 1 Connectivity

Led to new or strengthened relationships, partnerships, or networks

#### 2 Conceptual

Changed people's knowledge about or awareness of an issue

#### 3 Capacity Building

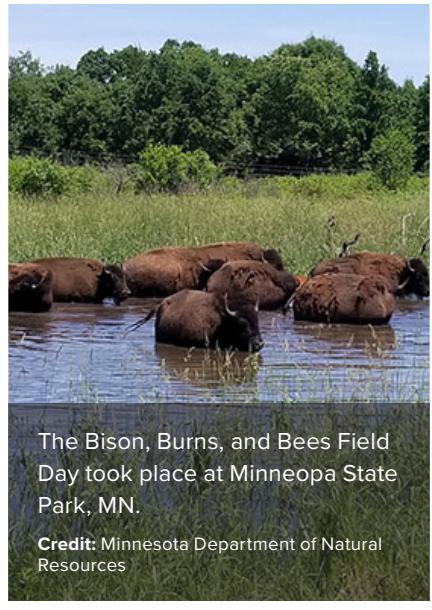
Enhanced the skills, expertise, or resources of organizations or people

#### 4 Instrumental

Changed plans, decisions, practices, or policies

#### 5 Socio-environmental

Changed social and/or ecological systems



The Bison, Burns, and Bees Field Day took place at Minneopa State Park, MN.

Credit: Minnesota Department of Natural Resources

### 1. Tallgrass Prairie and Oak Savanna Fire Science Consortium

#### *Bison, Bees, and Burning Field Day*

This field day was a collaboration between three agencies to explore oak savannah restoration and management. Its purpose was to bring multi-disciplinary perspectives to the challenge of using active management to restore oak ecosystems when populations of rare bee species are present. Various formats engaged 55 participants in sub-groups, including a field walk through oak savannah, a driving tour to identify wetland, savanna, and prairie management, and unique stations with subject matter experts.



**OUTCOMES:** The event led to increased trust through interactions with land managers and rare species specialists, a heightened intent to focus on oak savanna restoration, and changes in knowledge, awareness, and understanding of oak savannah restoration and management.

### 2. Southern Fire Exchange

#### *Fire Science Online and In-Person Training for Extension Professionals*

The 2021 Southeast Prescribed Fire Training Needs Survey highlighted a gap in training for private landowners, practitioners, and non-federal fire users. In response, the SFE co-developed a 4-5 hour online course covering topics including fire ecology, prescribed fire planning, ignition techniques, smoke modeling, wildlife habitat management, legal considerations, and communication strategies. Originally for Extension professionals, the course is now open to all and has enrolled over 1,500 participants.



**OUTCOMES:** Received two national awards from the Association for Natural Resources Extension Professionals:

- “Outstanding Regional Collaboration”
- “Gold Award for Website, App, and Educational Technology”



Participants at an SFE workshop for Extension professionals got hands-on experience with prescribed fire equipment and tools.

Credit: Jennifer Fawcett

Participants of the Norden Prescribed Burn Workshop using a drip torch.

Credit: Lori Bammerlin



### 3. Great Plains Fire Science Exchange

#### *Norden Prescribed Burn Workshop*

The Great Plains Fire Science Exchange planned, advertised, and conducted a prescribed burn workshop in rural Springview, NE. All the major players in prescribed burning met each other and made plans to work together: ranchers, landowners, state and county agencies, burn contractors, and prescribed burn association (PBA) members.



**OUTCOMES:** As a result of the workshop, the local community is better prepared to conduct prescribed fire and wildfire response independently.

### 5. Northern Rockies Fire Science Network

#### *Traditional Knowledge and Fire Events*

Partnering with Tribal fire managers and communities led to successful events and workshops, including an event at the Spokane Tribe Food Sovereignty Garden, where participants learned about burning for cultural foods and resources in collaboration with the US Forest Service Region 6 Ecology Program and the Spokane Tribal Network. Multiple Tribal fuels programs have also hosted field days as part of hybrid fire/fuels monitoring workshops, strengthening regional capacity.



Melodi Wynne (Spokane Tribal Network) talking about the cultural burn objectives for this event.

Credit: Kara Karboski



**OUTCOMES:** Trainings like these help build relationships and capacity by learning together, sharing knowledge and resources, and supporting one another in achieving objectives defined by each community and agency.

### 4. Consortium of Appalachian Fire Managers and Scientists (CAFMS)

#### *5th Cohesive Strategy Workshop*

The Wyden agreement permits the United States Forest Service (USFS) to conduct prescribed burns on private lands that border USFS lands. During the 5th Cohesive Strategy Workshop, CAFMS facilitated discussions among national agency leaders and local land managers on the real-world challenges of implementing the Wyden Agreement.



**OUTCOMES:** This session led to actions at the National level. There is now greater flexibility in using Wyden agreements, which in turn is leading to the expansion of prescribed fire to more private lands in the Appalachian region.



Workshop attendees toured a Federal Excess Personal Property (FEPP) program facility.

Credit: Mikel Robinson

### Conclusion

JFSP provides research funding, exchange, and communication for wildland fire, fuels, and fire-impacted ecosystems. We are proud of and appreciate all the exchanges for their hard work sharing relevant science and strengthening partnerships and collaborations. Their effort is leading to demonstrated outcomes of improved application of science to inform effective land and fire management. For more information on FSEN activities, visit [www.firescience.gov](http://www.firescience.gov).

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\*Adapted and modified from Meadow and Owen's 'A Guidebook for Natural and Physical Scientists Looking to Make a Difference' Guidebook.