

FACT SHEET

Supporting the Fireline

Fire Science's Real World Impacts

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



Workshop attendees discuss landscape change and management in repeatedly burned areas on Okanogan-Wenatchee National Forest.

Credit: John Marshall

Northwest Fire Science Consortium (NWFSC)

Enhancing resilience in post-fire landscapes

In June 2025, the NWFSC, the Washington Department of Natural Resources, and the Okanogan-Wenatchee National Forest convened researchers for a two-day workshop on post-fire resilience. Participants from federal, state, tribal, academic, and NGO organizations visited burned sites to examine factors influencing reburn severity. NWFSC facilitated learning, science exchange, and relationship-building to support collaborative, science-informed post-fire management across Washington.



OUTCOMES: NWFSC strengthened regional partnerships, documented practitioner needs, advanced post-fire decision-making, and catalyzed ongoing collaboration—establishing a scalable model for field-based learning across the Pacific Northwest.

Northern Rockies Fire Science Network (NRFSN)

Expanding Connectivity in the Region

The NRFSN strengthened regional wildfire collaboration by intentionally building relationships across agencies, Tribes, NGOs, and landowners during FY24–25. NRFSN connected the Intermountain West Joint Venture with the Fire Science Exchange Network to share its Sagebrush Technical Network, joined Indigenous People's Burning Network meetings, and expanded outreach through regional conferences. By convening partners and creating space for peer learning, NRFSN helped bridge science, cultural fire, and on-the-ground management.



OUTCOMES: NRFSN expanded connectivity, amplified science transfer, and built new cross-sector partnerships reaching Tribes, landowners, and practitioners while strengthening regional capacity.

Attendees of the 2025 Intertribal Timber Council Symposium tour the Confederated Salish and Kootenai Tribes Forestry Nursery.

Credit: Ella Hall, NRFSN

Firefighters from Cal Poly Humboldt's Student Association for Fire Ecology participate in an After Action Review after their first prescribed burn.

Credit: Henri Holbrook



California Fire Science Consortium (CFSC)

Firefighter Workshops: Building Prescribed Fire Capacity

Through its Northern California region, CFSC closed a critical training gap by preparing community members to safely participate in prescribed burns. In 2025, five trainings in Humboldt County reached 170+ participants, strengthening leadership, building confidence, and expanding local capacity through classroom, field, and live fire experience.



OUTCOMES: Increasing prescribed fire participation and reducing qualification barriers directly improved ecosystem health and wildfire resilience.

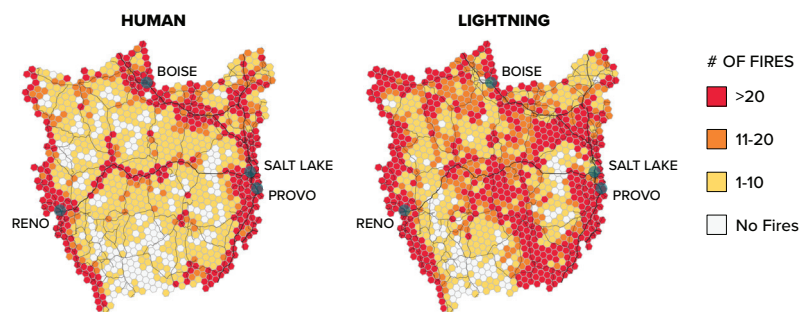
Great Basin Fire Science Exchange (GBFSE)

Providing Baseline Information for Decision-Making

When the fire community needed a clear picture of changing fire regimes in the Great Basin, gaps in historical data became obvious. The GBFSE convened researchers and partners to analyze decades of fire across vegetation types, translating questions into science. They produced a peer-reviewed synthesis and an interactive story map that established baseline fire frequency and identified drivers, including nonnative grasses and human ignitions. The work provides a new reference for the Great Basin's wildland fire community.



OUTCOMES: Equipped practitioners with novel science they now use to guide restoration, mitigation, and management decisions.



Number of fires by ignition type and proximity to cities and major roadways in the Great Basin. Credit: Strand et al. 2025

Southwest Fire Science Consortium (SWFSC)

Supporting Tribal Wildland Fire Stewardship

The 2024 Arizona Tribal Fire & Climate Resilience Summit brought together Tribal land managers, researchers, agencies, and entrepreneurs to advance wildfire and forest stewardship across Arizona. Hosted by the San Carlos Apache Tribe, the convening emphasized solutions ranging from wildfire preparedness to workforce development.

SFSC connected 150+ participants, expanded Tribal fire capacity, shared funding pathways, and launched coordination advancing resilience, workforce development, and collaboration.

Credit: Marjie Brown



OUTCOMES: SFSC helped connect 150+ participants, expand Tribal fire capacity, share funding pathways, and launch ongoing coordination advancing ecological resilience, workforce development, and cross-Tribal wildfire collaboration.

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.

FIRESCIENCE.GOV
Research Supporting Sound Decisions

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