

BIG IDEAS

We synthesize the best available science, make national policy locally relevant, and deliver usable solutions to our partners.

National: We put the “work” back in workshop

“There is a mismatch between the scale of the risk, and the scale of the work we are actually doing.”

~ USDA Forest Service Chief Christiansen

In March 2020, CFRI and the other SWERIs gathered over 150 federal, tribal, state, and local land managers, research partners, and stakeholders. [The SWERIs facilitated collaborative small-group discussions](#) in which people shared the barriers they face, and transferred problem-solving knowledge between geographies and “ologies.”

Policy: Bennet Western Climate Resilience Roundtable

When CFRI Director [Tony Cheng provides input to Colorado Senator Michael Bennet](#), he makes recommendations about climate change and natural resource policy from an unbiased perspective based on lessons we’ve learned as an entire organization. Our science-based monitoring methods and long history of collaborative success provide information developed from the practice of doing—a “pracademics” that positions CFRI to contribute to national discussions.

State: Making statewide priorities locally relevant

When the Colorado State Forest Service (CSFS) was ready to roll out their new [Forest Action Plan](#) to staff, they partnered with CFRI to design a virtual workshop. CFRI helped CSFS downscale statewide priorities to frame how the Forest Action Plan would apply to work on their specific forests.

Program: Evaluating the Collaborative Forest Landscape Restoration Program

CFRI worked with the Ecological Restoration Institute and USFS staff to co-develop an [analysis of CFLRP projects](#) that documents lessons learned, assesses the factors that enable and restrain collaboration, and identifies features of resilient collaboratives.

Program managers are using this review to improve CFLRP and collaboration within USFS more broadly.

Local: Sharing lessons learned to increase collaborative capacity

As the pace of collaborative forest restoration increases throughout the state, we increase capacity by empowering local groups to monitor and adaptively manage their own projects. At the [San Juan Headwaters Forest Health Program Science Symposium](#) (February 2020), we transferred knowledge gained from our other collaborative endeavors and helped groups design protocols that specifically address the social and ecological context of forests, communities, and watersheds of the San Juan.

Project: Prescribed fire monitoring influences on-the-ground decisions

We monitored multiple prescribed burns and mechanical treatments in Northern Colorado to show the outcomes of each treatment type. Our findings show that prescribed fire is more efficient and effective for reducing the risk of catastrophic wildfire. We [integrate these findings with local decision making](#) to make each project better than the last.

We use on the ground experience and local expertise to inform regional and national solutions.

LOCALLY RELEVANT



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CFRI and the 2020 Fire Season

By creating and integrating actionable knowledge across forest and fire management, we helped break down social and ecological barriers to prepare people and landscapes for the 2020 fire season.

Pre-Fire Planning

Fire requires cross-boundary planning, and CFRI works with federal, state, and local organizations in Northern Colorado to support the [Northern Colorado Fireshed Collaborative](#).

- Our landscape prioritization modeling identifies where people can work most effectively towards shared outcomes.
- CFRI collects and analyzes prescribed fire and mechanical treatment effectiveness data with and for our partners to improve outcomes on the ground.
- CFRI's collaborative frameworks leverage our monitoring data to build a shared, science-based understanding of landscape conditions.

Smoke in the Air

Colorado's 2020 fire season had huge social and ecological impacts, and CFRI's relationships with land and fire managers meant that our science-based information and analyses were accessible for fire managers and decision makers to use during fires.

We collaborated with teams at the Rocky Mountain Research Station to help fire managers pre-plan fire response activities using [Potential Operational Delineations](#). Products from this collaborative pre-planning, including maps showing [suppression difficulty index](#), and [potential control lines](#), informed fire response that incorporated multiple values.



The Calwood Fire started on October 17 2020, and burned over 10,000 acres in Boulder County. The fire moved quickly and destroyed at least 20 homes.
Photo Credit: William D. Bowman

Post-Fire Recovery

CFRI's expertise is used in post-fire recovery planning:

- [CFRI modeling](#) helped prioritize watershed protection by identifying locations and methods for containing post-fire erosion hotspots across the Cameron Peak and East Troublesome Fires, the two largest in Colorado's recent history.
- Before the flames were out, CFRI began working with the Arapaho & Roosevelt National Forests and the Rocky Mountain Research Station to determine areas where reforestation and recovery efforts can be spatially prioritized to give the best bang for the buck with limited resources for re-planting.



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