COLORADO FOREST RESTORATION INSTITUTE 2025 ANNUAL REPORT

COLORADO FOREST
RESTORATION INSTITUTE
COLORADO STATE UNIVERSITY

June 2026

The **Colorado Forest Restoration Institute (CFRI)** was established in 2005 as an application-oriented, science-based outreach and engagement organization hosted at Colorado State University (CSU). Along with centers at Northern Arizona University and New Mexico Highlands University, CFRI is one of three institutes that make up the Southwest Ecological Restoration Institutes, which were authorized by Congress through the Southwest Forest Health and Wildfire Prevention Act of 2004. We develop, synthesize, and apply locally relevant, actionable knowledge to inform forest management strategies and achieve wildfire hazard reduction goals in Colorado and the Interior West. We strive to earn trust through being rigorous and objective in integrating currently available scientific information into decision-making through collaborative partnerships involving researchers, land managers, policy makers, interested and affected entities, and communities. CFRI holds itself to high standards of scientific accuracy and aims to promote transparency in the production and communication of science-based information. Always carefully evaluate sources for rigor and appropriateness before applying in your own work.

CSU Land Acknowledgment: Colorado State University acknowledges, with respect, that the land we are on today is the traditional and ancestral homelands of the Arapaho, Cheyenne, and Ute Nations and peoples. This was also a site of trade, gathering, and healing for numerous other Native tribes. We recognize the Indigenous peoples as original stewards of this land and all the relatives within it. As these words of acknowledgment are spoken and heard, the ties Nations have to their traditional homelands are renewed and reaffirmed. CSU is founded as a land-grant institution, and we accept that our mission must encompass access to education and inclusion. And, significantly, that our founding came at a dire cost to Native Nations and peoples whose land this University was built upon. This acknowledgment is the education and inclusion we must practice in recognizing our institutional history, responsibility, and commitment.

Document Development: The annual report is produced each year in accordance with the fifth (5) duty of the 2004 Southwest Forest Health and Wildfire Prevention Act (Public Law 108-317). This annual report provides a snapshot of accomplishments of the Colorado Forest Restoration Institute at Colorado State University across all funding sources, and reports on deliverables for agreements that were active in calendar year 2025 approved by the Southwest Ecological Restoration Institutes annual work plan process and funded under the Act through Congressional annual appropriations.

Acknowledgments: We thank all CFRI staff who contributed to compiling deliverables and accomplishments represented in this report, and for your continued dedication, curiosity, and passion for actionable science. Thanks to Tony Cheng for your years of leadership and drafting much of the introductory text.

Funding: Funding to complete the report was provided from the Colorado Forest Restoration Institute through the Southwest Forest Health and Wildfire Prevention Act.

Publication Date: June 2026

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Cover Photo Credit: John Cline, Colorado State University, Cameron Peak Fire.

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BACKGROUND

Since the early 2000's, wildfires in the Western US are increasingly impacting communities and overwhelming forest resilience to regenerate. Forest land managers and their partners can be overloaded with the complexity of scientific information, multiple planning tools, and various objectives when they are deciding when, where, and how to act to enhance forest resilience and reduce wildfire risk. Signed into law in 2004, the Southwest Forest Health and Wildfire Prevention Act (P.L. 108-317)[1] authorized university-based entities in Arizona, Colorado, and New Mexico to co-develop, translate, and apply actionable knowledge in collaboration with forest land managers and partners to foster fire-resilient forests for the benefit of communities and nature, now and in the future. The Secretary of Agriculture designated the Colorado Forest Restoration Institute (CFRI) at Colorado State University (CSU), the Ecological Restoration Institute at Northern Arizona University, and the New Mexico Forest & Watershed Institute at New Mexico Highlands University – collectively the Southwest Ecological Restoration Institutes (SWERI) – to carry out the Act.

As specified by the Act, the Duties of the SWERI are to:

1) Develop, conduct research on, transfer, promote, and monitor restoration-based hazardous fuel reduction treatments to reduce the risk of severe wildfires and improve the health of dry forest and woodland ecosystems in the Interior West;
2) Synthesize and adapt scientific findings from conventional research to implement restoration-based hazardous fuel reduction treatments on a landscape scale using an adaptive ecosystem management framework;
3) Translate for and transfer to affected entities any scientific and interdisciplinary knowledge about restoration-based hazardous fuel reduction treatments;
4) Assist affected entities with the design of adaptive management approaches (including monitoring) for the implementation of restoration-based hazardous fuel reduction treatments;
5) Provide peer-reviewed annual reports.

Per the fifth (5) duty of the act, this annual report provides information about accomplishments of the Colorado Forest Restoration Institute for calendar year 2025. In addition to the federal authorization establishing the primary Duties for CFRI, CSU and the State of Colorado signed a charter[2] agreeing to host the institute, provide facilities and administration, and other means of support. CFRI strives to uphold CSU's mission as a land-grant university to provide teaching, research, public service, and engagement. Integrating our federal and state-driven missions, CFRI serves as a bridge between knowledge development (research) and knowledge application (management), distilling complexity to help affected entities apply locally-relevant, actionable knowledge to restore the resilience of forests to wildfire and a changing climate. CFRI works across ownership boundaries, spatial scales, and decision-making levels, thereby advancing shared stewardship strategies for forest lands and natural resources.

[1] Southwest Forest Health and Wildfire Prevention Act (P.L. 108-317): https://www.congress.gov/108/plaws/publ317/PLAW-108publ317.pdf

[2] Charter of the Southwest Ecological Restoration Institutes: https://sweri.eri.nau.edu/wp-content/uploads/2022/02/Charter_Final_Signed.pdf

ORGANIZATION

CFRI is hosted in the Department of Forest and Rangeland Stewardship, one of five academic departments in the Warner College of Natural Resources at Colorado State University. Dr. Camille Stevens-Rumann, Associate Professor in the Forest and Rangeland Stewardship Department and CFRI Assistant Director, served as CFRI Interim Director for calendar year 2025. In 2025, CFRI had twenty-seven full-time employees (including the Director) and approximately twenty-two part-time or seasonal employees, which was similar to 2024 staffing levels. Our seasonal and part time employees included undergraduate students, graduate students, and non-student staff. All CFRI employees report to the CFRI Director. In turn, the Director reports to the head of the Forest and Rangeland Stewardship department. Heads of all departments in the Warner College report to the college's Dean. In addition to staff who hold their primary appointment with CFRI, we leverage other CSU faculty, staff, and graduate students to add their specialized expertise for our projects on an as-needed basis.

Our work is organized in six focal areas:

Focal Area 1. Spatial Wildfire Decision Support

This focal area encompasses CFRI's expertise and contributions in customizing and applying existing science-based wildfire risk analysis and decision support frameworks so that they are used by, and useful for, local-level managers, partners and stakeholders to achieve shared forest and wildfire management goals.

Focal Area 2. Collaborative Adaptive Management

This focal area builds upon CFRI's social science expertise and practical experience in co-designing, mentoring, monitoring, and adaptively-managing the structures and processes of multi-stakeholder collaborative focused on forest landscape restoration and wildfire resilience.

Focal Area 3. Ecological Monitoring and Research

This focal area focuses on developing, training, collecting, analyzing, and interpreting results of ecological monitoring strategies to improve effectiveness of forest restoration, fuels treatment, and wildfire risk reduction activities by providing more descriptive performance measures than acres or volume produced.

Focal Area 4. Post-Wildfire Reforestation and Recovery

This focal area encompasses CFRI expertise and capacity, and our long-standing collaboration with scientists at numerous other universities and research institutions to develop, translate, and operationalize actionable scientific knowledge about post-fire reforestation and watershed recovery opportunities and challenges increasingly faced by land managers and their partners as patterns of disturbance and capacity to recover undergo continual change.

Focal Area 5. Translating Science Principles to Practice

This focal area encompasses CFRI's expertise and capacity to convene and organize peer-learning exchanges and translate and innovatively communicate the continuously-evolving body of physical, natural and social scientific knowledge about forest restoration, proactive wildland fire management, post-fire recovery and related topic areas.

Focal Area 6. Collaborative Capacity-Building

For this focal area, we invest in both CFRI staff and our partners to co-develop, lead and participate in trainings, continuing education, peer-to-peer learning events, and the constant intra- and inter-organizational communications and administration required to sustain working relationships and keep projects moving to completion in forest and wildland fire management and science.

ACCOMPLISHMENTS

Funding

Congress annually appropriates funds to support SWERI work plans through the US Department of Agriculture's Forest Service Hazardous Fuels/Fuels Management budget line item, administered as a direct grant through the Southwestern Region. Annual work plans for appropriations allocated to each institute are approved by the Secretary of Agriculture, in consultation with the Secretary of Interior. With a ramp up of increased SWERI federal appropriations, beginning in federal fiscal year 2021 the three SWERI Institutes were able to achieve equal distribution of federal work plan funding for the first time, which empowered us to be responsive to an emerging wildfire crisis and expanded our impact across the region. For fiscal year 2025, CFRI's annual work plan award was reduced from $2.2 million to $1 million by Forest Service discretion under the continuing resolution passed by Congress. CFRI uses annual work plan funds from Congress to incubate and support innovative new ideas, augment existing CFRI agreements and projects where significant value can be added, and support knowledge transfer and application between projects and partners. Additional CFRI funding comes from agreements with federal, state, and local government and non-governmental sources, competitive research grants, and charitable gifts.

CFRI amplifies the impact of applied research and leverages deep engagement in place-based local monitoring and adaptive management processes to share cumulative broader impacts throughout the Interior West. Many of our agreements span multiple years. As a snapshot of our funding, the table below includes all funding sources and agreements signed during calendar year 2025 with CFRI staff as the Principal Investigator. CFRI staff leverage additional funding by participating as Co-Principal Investigators and collaborators in additional projects not listed here, which further expands our funding and impact.

Table 1: Funding agreements executed during calendar year 2025 with CFRI staff as the Principal Investigator.

Source	Project Title	Agreement Number	Amount
USDA Forest Service, Southwest Region	FY2025 Colorado Forest Restoration Institute	25-DG-11030000-009	$1,000,000
USDA Forest Service, Rocky Mountain Region	Science Based Support to Increase Resilience of Municipal Watersheds to Wildfire With Forest Service Rocky Mountain Region Watershed Partnerships	25-CS-11020000-032	$680,000
Peaks to People Water Fund	Peaks to People Water Fund Watershed Investment Tool and Monitoring Support	014137-00002	$99,985
USDA Forest Service, Grand Mesa-Uncompahgre-Gunnison National Forests	Monitoring Analysis and Interpretation Support for Science Informed Management - MOD1	24-CS-11020400-033	$54,000
National Forest Foundation	Regional Conservation Partnership Program Outcome Based Monitoring	014465-00002	$170,000
USDA Forest Service, Rocky Mountain Research Station	Assessing historic forest productivity to inform active forest management in the Colorado Front Range	25-JV-11221633-083	$40,000
TOTAL			**$2,043,985**

CFRI leverages Congressionally appropriated funding to procure additional funded projects that support collaborative adaptive forest and wildland fire management on federal and non-federal lands. Over the past 5 years CFRI has successfully leveraged work plan funding roughly 1:1 with additional funded projects.

Table 2. Colorado Forest Restoration Institute federal funding over the past 5 years to support annual work plans under the Southwest Forest Health and Wildfire Prevention Act of 2004.

Fiscal Year	CFRI Federal Work Plan Funding ($ Millions)
2021	$2.0
2022	$2.0
2023	$2.2
2024	$2.2
2025	$1.0
TOTAL	**$9.4**

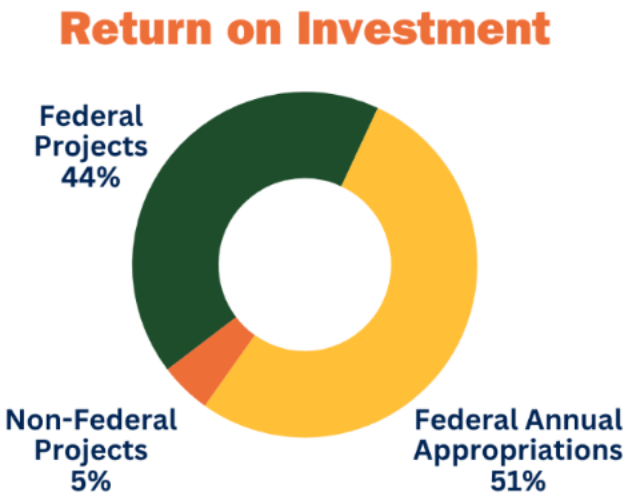


Figure 1. Over the past 5 calendar years 2021 through 2025, CFRI continues to deliver a 1:1 leverage of federal annual appropriations with other project funding, securing over $18 million across all funding sources for our wildfire risk reduction and forest restoration projects.

State Support

The State of Colorado, through its support to Colorado State University, provides support for CFRI as agreed to in the Charter signed between the three SWERI university presidents and State Governors. State support includes noncash contributions from CSU in the form of physical facilities, administrative support for CFRI, reduced indirect cost recovery on CFRI federal awards, and funding in 2025 to support a portion of faculty salary including 4.5 months of faculty salary to Tony Cheng and 6.75 months of faculty salary to Camille Stevens-Rumann (Interim Director). In 2025, all state support totaled approximately $900,000. Over the past 5 years, university support for CFRI facilities and administration, as well as a portion of directors salary, totals approximately $7.5 million.

Below is the CFRI 2025 Facts at a Glance with highlights of our 2025 projects and accomplishments across all our funding agreements.

COLORADO FOREST RESTORATION INSTITUTE
COLORADO STATE UNIVERSITY

Facts at a Glance

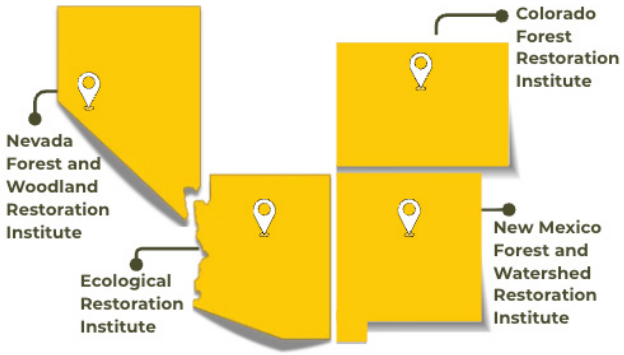
ABOUT US

Our work connects science with context-specific and actionable solutions that reduce wildfire risk and build ecological resilience in Western forest landscapes.

We do this through adaptive ecosystem management that bridges research, management, and policy to develop locally appropriate science-informed actions on the ground.

The Colorado Forest Restoration Institute is a Southwest Ecological Restoration Institute authorized by Congress under the 2004 Southwest Forest Health and Wildfire Prevention Act. Chartered by the Governor and University president, our home at Colorado State University gives us access to abundant resources and cutting-edge knowledge that we apply to our work in forest science, collaboration, and resilience.

SWERI SOUTHWEST ECOLOGICAL RESTORATION INSTITUTES



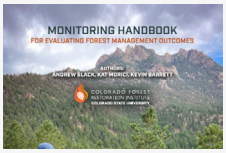
WILDFIRE RISK AND FOREST RESILIENCE IMPACTS

139 million+
On the ground acres of impact across the Western US

39
Total landscapes continually engaged

5,253
Total monitoring plots since 2010

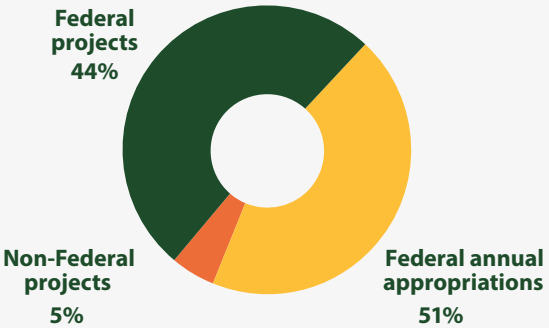
486
Monitored forest management units across 75,000+ acres



372
Publications since 2010

215
Students trained for careers in forestry and wildland fire

RETURN ON INVESTMENT



- *$3 million annual operating budget*
- *Since 2010, CFRI has raised more than* **$30 million**, *leveraging annual appropriations 1:1 with external funding*
- *The State of Colorado, through Colorado State University, provides partial directors' salary and in-kind support for CFRI facilities and administration equivalent to over* ***$11 million*** *since 2010*

OUR APPROACH

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

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

LOCALLY RELEVANT

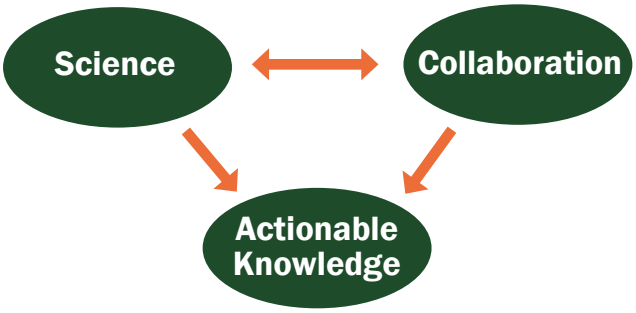
ACTION-ORIENTED RESEARCH AND ADAPTIVE MANAGEMENT

- We make research relevant by bridging ecological and social science with practical needs
- By co-developing knowledge with partners, we accelerate impact from planning to on-the-ground action

- We learn what works and align outcomes with partners from the field to leadership
- Our cross-boundary connections ensure the right work gets done where its needed most

"SWERI/CFRI personnel offer considerable subject matter expertise and a ground-based/site-specific/ practical approach to increase efficiency in project planning and implementation phases."

— USDA Forest Service Regional Program Managers



MAKING A DIFFERENCE

BEFORE FIRE

SETTING FORESTS AND FIREFIGHTERS UP FOR SUCCESS

- Monitoring forestry project outcomes to reduce conflict, enhance effectiveness, and accelerate implementation
- Pre-planning where to engage before fires start with Potential Operational Delineations (PODS)
- Making federal, state, and local forest and fire data accessible for planning on the ground

DURING FIRE

DELIVERING CRITICAL INFORMATION TO PROTECT ECOSYSTEMS AND COMMUNITIES

- Assessing and improving efficiency of communication through Incident Strategic Alignment Process (ISAP)
- Providing critical spatial data to improve firefighting success and learn what works on the fireline
- Aligning forest management to support more efficient and effective fire response

AFTER FIRE

REPLANTING FORESTS AND CONSERVING WATERSHEDS

- Research and monitoring in burned areas to understand where and why trees aren't growing back after fires
- Addressing gaps and providing solutions to accelerate reforestation
- Protecting drinking water supplies by prioritizing post-fire erosion control and flood mitigation

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PROJECT DELIVERABLES

Following is a report on deliverables under all agreements active during calendar year 2025 funded through Congressional appropriations authorized under the Southwest Forest Health and Wildfire Prevention Act and administered by the US Forest Service through the SWERI annual work plan process. This supports the Colorado Forest Restoration Institute to carry out the duties described in the Act. In 2025, CFRI had three active agreements under the Act. Deliverable accomplishments for each are included in this report:

- FY23 CFRI annual work plan, active 7/14/2023 through 9/30/2025
- FY24 CFRI annual work plan, active 7/01/2024 through 12/31/2025
- FY25 CFRI annual work plan, active 7/01/2025 through 12/31/2025

For FY23 agreement number 23-DG-11030000-012**,** CFRI reports the following cumulative accomplishments toward each project deliverables in the work plan for dates while the agreement was active, including July 15, 2023 through September 30th, 2025.

Deliverable	Status of Deliverables
Focal Area 1. Spatial Wildfire Risk Assessment and Decision Support	
1.1 Collaborate and coordinate with affected entities to advise, customize, apply, update and report on RADS frameworks that inform cross-boundary assessment, planning, NEPA processes, and adaptive management on between 1-3 focal landscapes identified in federal-state Shared Stewardship strategies, NRCS strategic	This agreement funded CFRI in the development, customization, and application of spatial wildfire decision support planning frameworks to assist partners with cross boundary adaptive management in the following landscapes. Many additional landscapes across land ownerships, not listed here, were engaged with funding from US Forest Service Washington Office, national forest level units, and other funding sources. • The Denver Water From Forests to Faucets Partnership • Supported the Northern Colorado Fireshed Collaborative wildfire risk assessment applications and outcome tracking • Ongoing engagement with Envision Chaffee County and Lake County Forest Health Council to help partners apply the Community Wildfire Protection Plan and Recreation prioritization planning tools within the Upper Arkansas Rocky Mountain Restoration Initiative priority landscape. This included activities such as attending Chaffee and Lake County Forest Health Council meetings to help foresters apply landscape scale outcomes in project level forest management activities, engaging with County Commissioners to apply wildfire science for updating land use codes, developing online mapping tools to make wildfire risk and priority management areas more accessible, and making maps for communication specialists, annual accomplishment reports, and grant applications for the group.

investments, State Forest Action Plans, US Forest Service focal investment areas, and other landscapes targeted for investments by collaborative partnerships.	
1.2 Collaborate and coordinate with affected entities in between 1-3 landscapes not identified in priority focal area lists to advise, customize inputs to, apply, update and report on RADS frameworks to inform cross-boundary assessment, planning, NEPA processes, and adaptive management to restore/enhance forest resilience and reduce wildfire risks.	CFRI staff Brett Wolk and Stephanie Mueller, in collaboration with the Colorado State Forest Service, continue development of the Colorado Forest Management Activity Tracker. CFRI roles include conceptualization, communication, and leadership direction, as well as management of federal agency forest activity data systems and advising on database best management practices. Making forest and fire management data accessible across all land ownerships facilitates equitable access to information and resources for communities not in priority landscapes. www.coloradoforesttracker.org Dannels, R., Kotlinski, N., Mueller, S., West Fordham, A., & Wolk, B. (2024). *Colorado Forest Management Activity Tracker (Forest Tracker) Report, v1 2024 (BETA)*. Colorado State Forest Service. Dec 2024. https://csfs.colostate.edu/wp-content/uploads/2024/12/CSFS_ColoradoForestTracker_V1_Final_Accessible.pdf Continued work supporting development and integration of spatial wildfire decision support tools in western Colorado with the West Region Wildfire Council and their partners. This included supporting local fire response partners developing potential operational delineations across all lands in 5 western Colorado counties, and supporting development of the Gunnison County Community Wildfire Protection Plan update by leading application of spatial wildfire decision support tools and collaborative planning frameworks. Subject matter expert for many partners and emerging groups to support development and application of spatial wildfire decisions support frameworks, such as the Headwaters of the Colorado Initiative, a multi-party collaborative group of public and private land managers focused on improving forest health and watershed resilience to wildfire in southern Wyoming and northern Colorado.
1.3 Improve wildfire risk and resilience analysis decision support frameworks and tools to better reflect a broader set of risks and tradeoffs for different	CFRI staff worked with the Denver Water From Forests to Faucets Partnership to develop new analysis integrating fire risk analytics with updated predictions of future fire weather scenarios using hotter and drier predictions to calibrate analysis to better reflect recent and predicted future local conditions. This was further integrated with new analysis of fire risk transmission in relation to source water vulnerability to wildfire. The new analytics allow partners to better target areas for limiting fire spread in addition to broad scale fire mitigation priorities, highlighting opportunities for integrating actions such as reducing fire ignitions, enhancing fire response opportunities along pre-planned POD boundaries, and reducing fire hazard across the landscape. CFRI staff integrated new analysis of fire risk transmission in relation to multi-resource wildfire risk assessment with partners in Gunnison County, Colorado, as part of their community wildfire protection plan update. The new analytics allowed partners to better target areas for limiting fire spread in addition to broad scale fire mitigation priorities, allowing fire chiefs, foresters, water providers, and community members to better balance

management actions, which could include climate vulnerability decision support frameworks, social vulnerability and environmental justice considerations, explicitly connect fuels management, wildfire response, and post-fire recovery strategies, better aligning field observations with model assumptions, or integrating impacts of additional activities that compliment vegetation management to help communities better co-steward fire adapted forested landscapes.	tradeoffs and target effective management actions such as reducing fire ignitions, enhancing fire response opportunities along pre-planned POD boundaries, and reducing fire hazard throughout the community. Lead developer, facilitator, and presenters for three-day workshop for leadership and staff of the Arapaho-Roosevelt National Forest/Pawnee National Grasslands to organize for Wildfire Crisis Strategy planning, implementation, and adaptive management, March 5-7, 2024. Project co-funded by the Arapaho-Roosevelt with additional CFRI staff support and presentations provided by this agreement.
1.4 Develop and publish between 2-4 written products, and deliver between 3-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities,	We shared information through the following presentations and workshops: • Beeton, T., Aldworth, T., Huayhuaca, C., Wolk, B. Integrating the Potential Operational Delineations (PODS) Spatial Fire Planning Framework into CWPP's: A Primer. https://cfri.box.com/s/o1j1iw5ao89k3vh1c6xygue1l63uuqzd. Delivered presentation and co-taught 2-day Community Wildfire Protection Plan training workshop with The Ember Alliance for 45 participants at the National Cohesive Wildland Fire Strategy Workshop, November 4th-5th, 2023, Santa Fe, New Mexico. • Supported POD prioritization and integration with fuels management strategies with managers that led to an updated POD boundary layer with the multi-jurisdictional Upper South Platte Partnership and the USFS South Platte Ranger District. May 7th, 2024. • Delivered presentations of CFRI activities at the From Forests to Faucets annual partnership meeting, January 8th, 2024, in Lakewood, Colorado. Brett Wolk. "Forest to Faucets Effectiveness Monitoring Update". https://cfri.box.com/s/3nmi6ennkly053kobz1waoghg15u0gza

analytical methods, and best practices regarding the use and effectiveness of science- and risk-based methodologies, approaches, and planning processes being used in collaborative forest restoration, resilience and risk mitigation approaches across the Interior West.	We produced the following written publications: • Colavito, M. M., & Beeton, T. A. (2024, March). *Understanding and applying wildfire risk science and decision support tools* (Southwest Ecological Restoration Institutes briefing paper). https://cfri.box.com/s/nmdyua5p4zr1ygsb9lnaaf6c95qnf08k • North, M., Bisbing, S., Hankins, D., Hessburg, P., Hurteau, M., Kobziar, L., Meyer, M., Rhea, A., Stephens, S., & Stevens-Rumann, C. (2024). Strategic fire zones are essential to wildfire risk reduction in the western United States. *Fire Ecology, 20*(1). https://fireecology.springeropen.com/articles/10.1186/s42408-024-00282-y • Rhea, A., Wolk, B., Ritter, S., & McDonald, M. (2024). *From Forests to Faucets Partnership wildfire risk assessment* (CFRI-2414). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/09/Rhea_etal_FromForeststoFaucetsPartnership_WildfireRiskAssessment_CFRI_2414.pdf • Rhea, A., Wolk, B., Ritter, S., & McDonald, M. (2024). *Integrating spatial decision support frameworks with the From Forests to Faucets Partnership*. Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/09/Rhea_F2F_RADS_CFRI_2416.pdf • Balik, J. A., Coop, J. D., Krawchuck, M. A., Naficy, C. A., Parisien, M. A., Parks, S. A., Stevens-Rumann, C. S., & Whitman, E. (2024). Biogeographic patterns of daily wildfire spread and extremes across North America. *Global Ecology and Biogeography, 7*, 1355361. https://doi.org/10.3389/ffgc.2024.1355361

Focal Area 2. Collaborative Readiness, Resilience, and Adaptive Management	
2.1 Collaborate and coordinate with other SWERI and affected entities to co-design, deploy and adapt strategies to monitor, assess and report on factors affecting the readiness, effectiveness, resilience and adaptiveness of multi-stakeholder collaborative processes associated with forest restoration, resilience and wildfire risk mitigation. Potential projects may include, but are not limited to: - Collaborative Forest Landscape Restoration Program	CFRI staff continue coordinating with other SWERI and sustain regular communication to serve as a resource for national CFLR Program Managers. This engagement includes conducting an assessment of collaborative resilience across all currently funded CFLRP projects across the country. CFRI staff worked on combining the collaborative readiness framework with indicators and metrics of community readiness with Colorado State Forest Service to support development of social monitoring metrics into the evaluation of CSFS Forest Restoration and Wildfire Risk Mitigation grant program. Ch'aska Huayhuaca participated in the Western Collaborative Conservation Network's Collaborative Capacity Working Group. This included the WCCN's 2024 Confluence workshop, April 2-4 in Tucson, AZ. Ch'aska delivered a presentation on the Stages of Collaborative Readiness Framework and co-led two breakout workshop sessions: 1) "Working Across Scales - Scale and Values in Collaboration: What are the Questions?" and 2) a breakout session for the capacity-building working group.

- Community Wildfire Protection Planning groups - National Priority Landscapes identified under the US Forest Service's Wildfire Crisis Strategy	
2.2 Collaborate and coordinate with other SWERI and affected entities to co-design, deploy and adapt methods to monitor social and economic outcomes of multi-stakeholder collaborative activities associated with forest restoration, resilience and wildfire risk mitigation.	CFRI staff co-developed the Colorado Forest Resilience Planning Guide working with the Colorado Forest Health Council and with partners from CO Department of Natural Resources, Colorado State Forest Service, Colorado Forest Collaboratives Network, and Collaborative Decision Resources Associates. The guide leverages the Collaborative Stages of Readiness framework to organize a series of recommended actions to help Colorado communities develop and implement forest resilience strategies to mitigate, respond, and recover from common forest disturbances. It also serves as a framework for funding entities, policymakers, and agency leadership to inform where allocation of technical and financial resources can be most effectively deployed to support implementation of collaborative adaptive forest management actions.
2.3 Develop and publish 2-4 written products, and deliver 3-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities, and best practices regarding strategies, capacities, and techniques to enhance the readiness, resilience and adaptiveness of multi-	We shared information through the following presentations and workshops: • Huayhuaca, C. (Sept. 20, 2024). Stages of collaborative readiness: Preparing landscapes and communities for a future with fire. Presented at the Society of American Foresters Convention in Loveland, CO. https://www.eforester.org/Safconvention2024/Main/Events/Event_Display.aspx?EventKey=CONVT24&WebsiteKey=6feb6ef1-cd6c-4911-a405-8ebc2e19055e • Stevens-Rumann CS, Barrett K, Wolk B, Cheng A. 2024. CFLRP: adaptive management through the lens of CFRI. CO/WY Society of American Foresters Annual Meeting, March 2024, Loveland, CO. • Jarod Dunn presented on Conditions Based Management at the Federal Environmental Symposium. Lessons Learned from the Spruce Beetle Epidemic Aspen Decline Management Response (SBEADMR) Project. March 11-14, 2024. Virtual. https://mregs.nih.gov/FileStorage/NIGMS/DL3D-23Z3/2024%20FES%20Agenda%20FINAL%20V3.pdf • Huayhuaca, C. (2023, October 12). Stepping through stages of collaborative readiness to achieve process and performance outcomes. Presented to the Capacity Working Group of the Western Collaborative Conservation Network, virtual. https://cfri.box.com/s/5cwt83iu23sf2wwsk956yieu109uy63c • Beeton, T.A. (2023). Collaborative governance dynamics and durability: Processes and structures to maintain collaborative process and performance. Invited presentation to National Forest Foundation CFLRP Peer Learning session, November 9, 2023. https://vimeo.com/884197310

stakeholder forest and wildfire risk mitigation collaboratives to inform collaborative capacity-building investment strategies	We produced the following written publications: • Beeton, T. A., Snitker vonHedemann, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP Collaborative Governance Assessment Report for the Missouri Pine-Oak Woodland Restoration Project*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/01/Beeton_etal_2024_CollaborativeGovernanceAssessmentReport_MPO.pdf • vonHedemann, N., Beeton, T. A., Snitker, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the Southern Blues Restoration Coalition CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/06/vonHedemann_etal_2023_CollaborativeGovernanceAssessmentReport_SouthernBlues.pdf • vonHedemann, N., Beeton, T. A., Snitker, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the North Central Washington CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/06/vonHedemann_etal_2024_CollaborativeGovernanceAssessmentReport_NCWA.pdf • Beeton, T. A., Snitker, A. J., vonHedemann, N., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the Southwest Colorado Collaborative Forest Landscape Restoration Initiative*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/04/Beeton_etal_2024_CollaborativeGovernanceAssessmentReport_SWCO.pdf • vonHedemann, N., Beeton, T. A., Snitker, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the North Yuba Forest Partnership CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/05/vonHedemann_etal_2024_CollaborativeGovernanceAssessmentReport_NYuba.pdf • vonHedemann, N., Beeton, T. A., Snitker, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the Western Klamath Restoration Partnership CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/05/vonHedemann_etal_2024_CollaborativeGovernanceAssessmentReport_WKlamath.pdf • vonHedemann, N., Beeton, T. A., Snitker, A. J., Colavito, M. M., Teel, T. L., Huayhuaca, C., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment report for the Northeast Washington Forest Vision 2020 CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/07/vonHedemann_etal_2024_CollaborativeGovernanceAssessmentReport_NEWashington_PRINT.pdf • Beeton, T. A., Teel, T. L., Colavito, M. M., vonHedemann, N., Huayhuaca, C., Cheng, A. S., Ghasemi, B., & Snitker, A. J. (2024). *Developing reliable and valid measures for evaluating collaborative governance and adaptability: An example from the Collaborative Forest Landscape Restoration Program*. Journal of Environmental Management, 370, Article 122664. https://doi.org/10.1016/j.jenvman.2024.122664 • O'Reilly, H., Beeton, T. A., vonHedemann, N., Colavito, M. M., Teel, T. L., Huayhuaca, C., Snitker, A. J., & Cheng, A. S. (2024). *CFLRP collaborative governance assessment: Summary of findings for the Rogue Basin Landscape Restoration Project*. Southwest Ecological Restoration

	Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/05/OReilly_etal_CFLRP_Rogue_Brief.pdf • O'Reilly, H., Beeton, T. A., vonHedemann, N., Colavito, M. M., Teel, T. L., Huayhuaca, C., Snitker, A. J., & Cheng, A. S. (2024). *Collaborative governance assessment for the Rogue Basin CFLRP*. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/05/OReilly_etal_2024_CollaborativeGovernanceAssessmentReport_Rogue.pdf • Dunn, J., Brown, H. L. C., & Cheng, A. S. (2024). *NEPA and condition-based management in practice: A framework and case study of the spruce beetle epidemic and aspen decline management response in southwest Colorado* (CFRI-2407). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/08/NEPA_CBM_SBEADMR_CaseStudy.pdf

Focal Area 3. Measure Ecological Outcomes of Fire Adapted Forests	
3.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D and other federal natural resource research programs to develop, deploy, and adapt monitoring strategies, and report on monitoring outcomes for between 2-4 projects that measure the biophysical outcomes pre- and post-fire treatments across spatial and temporal scales relative to collaboratively-defined desired conditions and outcomes. Outcomes may include, but are not limited to: a. Changes in fire metrics b. Post-fire forest recovery c. Post-fire watershed recovery d. Forest structure and arrangement e. Effects on wildlife	CFRI conducted collection, management, analysis, and/or reporting of forest vegetation and wildfire fuels monitoring data to examine longer term (e.g. 1-10 year) ecological trends following forest management on the following projects. This also included the hiring, planning, training, and supervision of approximately 20 seasonal staff and undergraduate students supporting field monitoring efforts. Sites with field-based monitoring data collected in the 2024 field season included forestry projects on federal, state, local, and private lands. Sites monitored with at least partial funding from this agreement included (land ownership): • Newton Park (Denver Mountain Parks) • Payne Gulch (US Forest Service) • Heavens (Private lands with Colorado State Forest Service) • Little Morrison / Sand Springs (US Forest Service) • Forsythe II (US Forest Service) • Silver Trident (US Forest Service) • Ben Delatour Scout Ranch (Private lands) • Lone Mesa State Park (Colorado Parks and Wildlife) • Monument Work Center (US Forest Service)
3.2 Collaborate and coordinate with affected entities to develop, deploy,	In 2024, CFRI staff contributed to monthly meetings (6 total), as well as frequent communication with the Colorado State Forest Service Monitoring Team to build shared monitoring practices across organizations, advise and learn on monitoring protocols, share monitoring results, and discuss monitoring goals and recent ecological research. CFRI worked with CSFS field office staff at multiple forestry sites to discuss

adapt, and report on between 2-4 training, peer-learning and technical assistance resources (i.e., protocols, field guides, desk guides, short- courses) aimed at building and enhancing the capacity of agencies, organizations and collaboratives to monitor and measure the ecological effects of landscape restoration, wildfire risk mitigation, and post-fire forest and watershed recovery investments on achieving collaboratively-defined desired conditions and outcomes	and train staff on monitoring protocols, and help support adaptive management to make monitoring data relevant to CSFS staff. In 2024, CFRI staff had over a dozen meetings with forest and fire managers one-on-one or small groups in the field at forest and fire management sites to discuss management planning, monitoring results, and conduct collaborative adaptive management to increase the effectiveness and application of forest management activities across Colorado. These occurred with a variety of agencies including Colorado State Forest Service, U.S. Forest Service, Natural Resources Conservation Service, local conservation districts, municipal open space agencies, non-governmental organizations, and other forest and fire management partners. CFRI staff continued developing tools to communicate monitoring strategies and build capacity of other organizations to understand, implement, and integrate monitoring and adaptive management frameworks into their own organizational operations. This included publishing the Monitoring Handbook, and conducting several workshops, including at the Society for American Foresters national convention in Loveland, Colorado, Sept 18, 2024, and at the Northern Colorado Fireshed Collaborative quarterly meeting, September 26, 2024. • Slack, A. S., Morici, K. E., & Barrett, K. J. (2024). *Colorado Forest Restoration Institute Monitoring Handbook for Evaluating Forest Management Outcomes* (CFRI-2417). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/09/Slack_etal_CFRI_MonitoringHandbookforEvaluatingForestManagmentOutcomes_CFRI_2417.pdf • Slack, A.W., Morici, K.E., Barrett, K.J. Providing field-based monitoring guidance to build capacity for peer learning and science-based forest management. Society of American Foresters Annual Convention, Loveland, Colorado. September 18th, 2024.
3.3 Leverage and combine CFRI and SWERI monitoring methods, data, and outcome measures with existing monitoring data networks to improve monitoring practices and draw stronger inferences that enhance knowledge of long-term post-treatment effects on forest conditions as the climate changes.	CFRI staff continued development and advancement of tabular and geospatial data collection and management systems to organize, summarize, and share CFRI monitoring findings with internal staff and external partners. CFRI staff continued to serve as a resource for other organizations and collaborative group partners in best management practices for data management.
3.4 Develop and publish between 2-4 written products, and deliver between 2-4 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities, and best practices regarding m onitoring pre-fire	We delivered the following presentations: • Barrett, Kevin. 2024. Collaborative Monitoring and Adaptive Management for the Front Range CFLRP: Was it Successful? Slack, Andrew and Frank Falzone. Monitoring and Adaptive Management with the Upper South Platte Partnership. Presentation and discussion at the Colorado Front Range JAM session, October 21, 2024. Broomfield, Colorado. • Morici, Kat. *Prescribed Fire Monitoring*. 2024. Presentation and discussion at the Colorado Front Range JAM session, October 21, 2024. Broomfield, Colorado. • Mueller, Stephanie. 2024. Extreme 2020 Colorado Wildfires: Treatments Altered Fire Severity Across Forest Types and Days of Burning. Presentation and discussion at the Colorado Front Range JAM session, October 21, 2024. Broomfield, Colorado. • Slack, Andrew and Frank Falzone. 2024. Monitoring and Adaptive Management with the Upper South Platte Partnership. Presentation and discussion at the Colorado Front Range JAM session, October 21, 2024. Broomfield, Colorado.

mitigation and post-fire recovery treatment outcomes on achieving ecological, economic and social objectives.	We produced the following written publications: • Barrett, K. J. (2024). *Silver Trident prescribed fire: Post-burn monitoring summary* (CFRI-2406). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/06/Silver-Trident-Prescribed-Fire-Post-Burn-Monitoring-Summary_Barrett_2406.pdf • Barrett, K. J., & Parrish, M. K. (2024). *Monument fire center monitoring summary* (CFRI-2024). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/06/MonumentFireCenter_MonitoringSummary_Barrett_CFRI_2404.pdf • Slack, A., & Lehnert, S. (2024). *Payne Gulch prescribed fire: Post-burn monitoring summary* (CFRI-2418). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/10/Slack_PayneGulch_PostBurnSummary_CFRI_2418.pdf • Eastburn, J. F., Campbell, M. J., Dennison, P. E., Anderegg, W. R. L., Barrett, K. J., Fekety, P. A., Flake, S. W., Huffman, D. W., Kannenberg, S. A., Kerr, K. L., Sánchez, A. J., & Vogeler, J. C. (2024). *Ecological and climatic transferability of airborne lidar-driven aboveground biomass models in Piñon-Juniper woodlands*. GIScience & Remote Sensing, 61(1). https://doi.org/10.1080/15481603.2024.2363577 • Prevéy, J. S., Jarnevich, C., Pearse, I. S., Munson, S., Stevens, J., Barrett, K., Coop, J. D., Day, M., Firmage, D., Fornwalt, P., Haynes, K., Johnston, J., Kerns, B., Krawchuck, M., Miller, B., Nietupski, T., Roque, J., Springer, J. D., Stevens-Rumann, C., Stoddard, M. T., & Tortotelli, C. (2024). *Non-native plant invasion after fire in western USA varies by functional type and with climate*. Biological Invasions, 26(4), 1157-1179. https://doi.org/10.1007/s10530-023-03235-9 • Fowler, J. A., Nelson, A. R., Bechtold, E. K., Paul, R., Wettengel, A. M., McNorvell, M. A., Stevens-Rumann, C. S., Fegel, T. S., Anderson, E., Rhoades, C. C., Wilkins, M. J. (2024). *Pile burns as a proxy for high severity wildfire impacts on soil microbiomes*. Geoderma, 448, 116982. https://doi.org/10.1016/j.geoderma.2024.116982 • Gardiner, T., Cheng, A. S., Chambers, M. E., Snyder, V., Robertson, L., & Free, J. (2024). *Multi-party monitoring for the Uncompahgre Plateau Collaborative Forest Landscape Restoration Project* (CFRI-2402). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/02/Snyder_Chambers_UPCFLRP_10Yr_MonitoringReport_CFRI2402.pdf
Focal Area 4. Climate-forward Adaptation for Post-fire Recovery and Restoration	
4.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D to co-sponsor, co-convene and report out on between 2-4 workshops and symposia that bring together researchers and managers to share knowledge and lessons learned about post-fire reforestation and watershed recovery outcomes.	CFRI staff Marin Chambers and others collaborated with The Nature Conservancy to convene and lead a conifer cone collection strategy workshop for federal, state, local, and NGO professionals titled: "The Need for Reforestation in Colorado." Hosted at Boulder County Parks and Open Space, Oct 18, 2023. Cone Collection - Scouting and Monitoring Workshop - July 29, 2024. CFRI staff convened professionals from over 20 agencies to provide in-depth training on cone scouting and monitoring for cone collection activities. Organized workshop in partnership with Josh Sloan (NMHU), Catherine Schloegel (TNC), Erica Hample (CSU Extension), Shane Milne (BCPOS), and Anthony Massaro (Jefferson County Open Space).

4.2 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D to compile, synthesize, apply and report on current research findings on post-fire reforestation and watershed recovery trends in collaboration with on-the-ground managers.	CFRI staff Marin Chambers and others, in coordination with research partners at New Mexico State University and New Mexico Highlands University, in 2024 continued convening the Southwest Reforestation Partnership. The mission of the Partnership is to support current and future reforestation needs in Arizona, Colorado, New Mexico, and Utah by building cross boundary partnerships to exchange information, technology, and expertise in support of the development of critical capacity, research, and infrastructure. Participants include leadership from state forestry agencies in all four states, reforestation and timber management leadership from US Forest Service regions 2, 3, and 4, academic partners, non-government organizations, and others. The goals are to create a network of reforestation actors that can leverage resources, expertise, and authority to be efficient and effective across all aspects of the reforestation pipeline – seed, nursery, outplanting, post-planting, and monitoring. CFRI staff Allie Rhea performed emergency post-fire erosion modeling for Alexander Mountain Fire in Colorado, shared data, and presented results with Alexander Mountain Fire recovery team through the Big Thompson Watershed Health Partnership on 8/28/24. These results were used by the post-fire team to assess and inform priorities for post fire watershed stabilization and recovery efforts. CFRI staff participated in quarterly Watershed Wildfire Protection Group meetings with water utilities, consultants, and state and federal agencies, to learn about watershed and wildfire issues and help partners integrate the latest science into watershed protection planning, management, and policy.
4.3 Collaborate and coordinate with affected entities, other SWERI and university researchers, Forest Service R&D, and other entities to explicitly connect fuels management, wildfire response, and post-fire recovery strategies and operational actions relative to water supplies and tree regeneration refugia at risk of loss from wildfire.	CFRI staff assisted with data sharing and supported conceptual integration for existing CFRI post-fire watershed risk analysis with the Colorado Water Conservation Board Wildfire Ready Watershed program, often through one-time virtual meetings with project applicants and CWCB. This created efficiencies for place-based groups and state agencies to better leverage existing data. CFRI staff supported integration with at least 10 different groups across the state. We continued working with CWCB leadership to explore better integration and leveraging of expertise with CFRI watershed planning tools and the Wildfire Ready Watersheds program.
4.4 Develop and publish between 2-4 written products, and deliver between 4-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, best practices, and outcome measures regarding post-fire reforestation and watershed recovery	Coalition for the Poudre River Watershed's Replant the Poudre Pub Talk, May 16, 2024, Fort Collins, CO. CFRI staff Marin Chambers and Allie Rhea helped with planning and contributed lightning talks along with other forestry experts and a Q&A session open to the public. Approximately 30 people in attendance. "Post-fire reforestation: Challenges and considerations for the Cameron Peak Fire and beyond" - Marin Chambers, Colorado Forest Restoration Institute • "Reforestation rocks! - TNC Contributions to Reforestation in the Poudre" - Rob Addington, The Nature Conservancy • "Spatial Prioritization of Reforestation" - Allie Rhea, Colorado Forest Restoration Institute • "Replanting the Poudre: Reforestation on Private Lands in the Poudre Watershed" - Cory Dick, Coalition for the Poudre River Watershed CFRI staff helped organize and presented research data on tree regeneration trends in the Cameron Peak Fire as part of the High Altitude Revegetation Committee and Society for Ecological Restoration annual summer field tour, CSU Mountain Campus, Colorado (July 2024), 80 participants. Rhea A and B Wolk. April 16th, 2024. Comparing the Cost and Watershed Impacts of Pre- and Post-Fire Mitigation Actions: a Risk Assessment Case Study. Oral presentation shared at the After the Flames Conference. Estes Park, CO. https://coco2024.exordo.com/programme/presentation/26

Chambers, M., Chapman, T., Schloegel, C., Fornwalt, P., Rodman, K., Stevens, J. "Give seeds a chance: opportunities and techniques to reestablish ponderosa pine forests using post-fire direct seeding. Oral presentation shared at the After the Flames Conference. Estes Park, CO. April 16, 2024. https://coco2024.exordo.com/programme/presentation/41

We produced the following written publications:

- Dobrowski, S. Z., Aghai, M. A., Chichilnisky du Lac, A., Downer, R., Fargione, J., Haase, D. L., Hoecker, T., Kildisheva, O. A., Murdoch, A., Newman, S., North, M., Saksa, P., Sjoholm, M., Baribault, T., Buonanduci, M. S., Chambers, M. E., Gonzales-Kramer, L. E., Harvey, B. J., Hurteau, M. D., Loevner, J., Safford, H. D., & Sloan, J. (2024). *Mind the gap: Reforestation needs vs. reforestation capacity in the western US*. Frontiers in Forests and Global Change, 7, 1402124. https://doi.org/10.3389/ffgc.2024.1402124
- Rodman, K. C., Fornwalt, P. J., Holden, Z., Crouse, J. E., Davis, K. T., Marshall, L. A. E. R. A., Stoddard, M. T., Andrus, R. A., Chambers, M. E., Chapman, T. B., Hart, S. J., Schloegel, C. A., & Stevens-Rumann, C. S. (2024). *Green is the new black: Outcomes of post-fire tree planting across the US interior West*. Forest Ecology and Management, 574, 122358. https://doi.org/10.1016/j.foreco.2024.122358
- Schloegel, C. A., Chambers, M. E., & Sloan, J. L. (2024). *Ponderosa pine seed collection on the Colorado Front Range: A field guide* (CFRI-2409). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/07/Schloegel_etal_PonderosaPineSeedCollectionontheCOFrontRangeAFieldGuide_CFRI_2409.pdf
- Schloegel, C. A., Chambers, M. E., & Sloan, J. L. (2024). *Ponderosa pine seed collection on the Colorado Front Range: Supplemental information* (CFRI-2409A). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/07/PPSC_CFRFG_SupplementalInformation_CFRI2409A.pdf
- Mueller, S., Sample, M., Evans, A., Flatley, W., Thode, A., & Friggens, M. (2024). *Fire-climate interactions in the Southwest: Literature review and annotated bibliography* (Gen. Tech. Rep. RMRS-GTR-432). U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. https://doi.org/10.2737/RMRS-GTR-432
- Moss, W. E., Crausbay, S. D., Rangwala, I., Wason, J. W., Trauernicht, W., Stevens-Rumann, C. S., Sala, A., Rottler, C. M., Pederson, G. T., Miller, B. W., Magness, D. R., Littell, J. S., Frelich, L. E., Frazier, A. G., Davis, K. T., Coop, J. T., Cartwright, J. M., & Booth, R. K. (2024). Transformational ecological drought: An emergent driver of ecosystem change in the 21st century. *Bioscience, biae050*. https://doi.org/10.1093/biosci/biae050
- Marshall, L. A., Fornwalt, P. J., Stevens-Rumann, C. S., Rodman, K. C., Chapman, T. B., Schloegel, C. A., & Stevens, J. T. (2024). What influences planted tree seedling survival in burned Colorado montane forests? *Forest Ecology and Management, 572*, 122321. https://doi.org/10.1016/j.foreco.2024.122321
- Wilson, M. A., Chambers, M. E., Schloegel, C. A., Pansing, E. R., Foe, R., Burney, O. T., Sloan, S. L., & Rempel, A. (2024). *Southwestern USA conifer seed collection, processing, and storage workshop summary* (CFRI-2403). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/03/Wilson_etal_2024_SWUSAConiferSeedCollectionProcessingStorageWorkshopSummary_CFRI_2403.pdf

Focal Area 5: Translate science principles into practice

5.1 Collaborate and coordinate with the other SWERI, land and wildfire managers, regional and statewide boundary organizations and collaboration networks, RMRS and other science delivery entities to co-organize, convene and/or complete reporting on the previous semi-annual event for the SWERI Cross Boundary Landscape Restoration Workshop and/or between 1-3 follow-up topic- or geography-specific workshops.	Working with other SWERI partners, CFRI staff have continued work developing a summary of lessons learned and actions from the 2023 SWERI Cross Boundary Workshop. https://sweri.org/cross-boundary-landscape-restoration-workshop/ Front Range Forest and Fire Symposium: CFRI led the initiation, planning, and overall direction for the Front Range Forest and Fire Symposium. This was a 3-part symposium to learn from project work to understand how science, monitoring, and adaptive management are impacting our effectiveness to cumulatively impact larger ecological and fire management outcomes along the Colorado Front Range. This included two all day field trips and an all-day peer learning JAM session workshop that collectively brought together over 100 individuals across a wide range of agencies and interests. Events were co-funded by the Arapaho Roosevelt National Forest and Pawnee National Grassland and Pike San Isabel National Forest Cimarron Comanche National Grassland. • August 19th, 2024: Northern Front Range fieldtrip • September 9th, 2024: Southern Front Range fieldtrip • October 21st, 2024: JAM session Agenda: https://cfri.box.com/s/i1iz6kzgrw43ozgb7qwzjo7p4akb3n6n
5.2 Develop and disseminate between 2-4 outreach products through a diversity of media (i.e., video, podcasts, colorful graphics, photos guides, Story Maps) that distill the scientific and management complexities about forest restoration, resilience and wildfire risk mitigation in a changing climate targeted to general audiences. Topics may include, but are not limited to: a. Foundational principles of forest restoration, resilience and wildfire risk mitigation in the Southern Rocky Mountains and Interior West. b. Lessons learned from applications of risk assessment decision support methodologies to prioritize forest restoration and	Dunn, J., Brown, H., Cheng, A., Simmons, B., Newton, K., & Hollingsworth, A. (2024). Condition-based management and NEPA planning infographic. *Colorado Forest Restoration Institute*, CFRI-2405. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/05/Dunn_NEPA_CBM_Steps_Infographic_April2024_print.pdf Dunn, Jarod. A framework to simplify and understand condition-based management. Blog post for the Northern Colorado Fireshed Collaborative. August, 2024. https://nocofireshed.org/cbm-framework/ Rhea, A., Wolk, B., Ritter, S., & McDonald, M. (2024). Prioritizing vegetation management with the From Forests to Faucets Partnership. *Colorado Forest Restoration Institute*. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/11/Rhea_F2F_Communication_CFRI_2415.pdf Stevens-Rumann, C., Vorster, A., Cheng, A., & Chambers, M. (2024). A path forward: Understanding how forest management mitigates wildfires. *Southwest Ecological Restoration Institutes*. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/04/StevensRummann_etal_Path_TrtEffectivenessBrief_SWERI.pdf Completed 2023 CFRI Facts at a Glance. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/08/2023-Annual-Report-CFRI_FactsataGlance.pdf Wilson, M.A. and Simmons, B.A. (2024). CFRI Monitoring Handbook Videos. Colorado Forest Restoration Institute. Developed, filmed, edited, and published a series of 8 videos with over 87 minutes of footage to facilitate communication, application, and support training for CFRI monitoring handbook monitoring protocols. The videos help partners understand monitoring concepts and better interpret results, while also providing resources for partners to more easily participate in the monitoring process. This also increased efficiency of training CFRI field crews in data collection methods. https://www.youtube.com/playlist?list=PLwf7wwmtbtxl9jz20WbgpV3r9S0hOOtMY

wildfire risk management actions at multiple scales, from Community Wildfire Protection Plans to large watersheds encompassing multiple ownerships and jurisdictions to regional or national programs. c. Lessons learned from applications of the Potential Operational Delineations (PODs) framework to advance pre-fire fuel treatment planning and cross-boundary wildfire response. d. Methods and best practices to enhance collaborative resilience for cross-boundary shared stewardship of high-priority landscapes. e. Operationalizing climate change decision support tools to inform forest landscape planning and wildfire risk assessments.	
5.3 Develop, maintain, and regularly update CFRI online platforms and social media to communicate latest science applications that produced outcomes from forest restoration and wildfire risk management projects and programs.	CFRI staff continue maintaining up to date information and links on CFRI website and all associated pages, including posting publications, current events, and other information to keep the website up to date and relevant. CFRI staff began assessing strategies for growing more impactful social media strategies and coordinated stories to deliver relevant information that informs forest restoration and wildfire risk reduction projects and programs. This includes maintaining platforms across Twitter / X, Facebook, and Instagram, and exploring establishing a presence on LinkedIn.

5.4 Translate science delivery and communication materials and multi-media expositions into languages other than English to increase accessibility to and audience for knowledge resources pertaining to forest restoration, resilience and wildfire risk mitigation.	This project has stalled and the demand for material translated into Spanish has shifted to other needs. Resources dedicated to this deliverable were shifted to add more presentations, peer learning, and direct partner engagement in deliverable 5.2 and 5.5.
5.5 Develop and publish 1-2 written products, and deliver 2-4 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on lessons learned and best practices for translating science-based principles into practice for forest restoration, resilience and wildfire risk mitigation.	CFRI staff served as subject matter experts and provided support to dozens of individuals, organizations, and multi-party collaborative groups on strategies to engage in communication around the selective use of science to develop misleading narratives in forest and wildfire ecology and management. Brown, S.J., Hagmann, K., Hessburg, P., Jones, G., Brown, H., Sawyer, S. (2024, April 24). Sifting through selective science and misinformation for collaborative forest management. Science for Managers Webinar co-hosted by Rocky Mountain Research Station and Southwest Ecological Restoration Institutes. Over 300 participants and 500+ Registered https://research.fs.usda.gov/rmrs/products/multimedia/webinars/sifting-through-selective-science-and-misinformation Barrientos, E., Maiolo-Heath, M., **Brown, H.**, & Pyle, A. (2024, April 15). Post-fire Science Communication [Conference presentation and discussion]. After the Flames: Tools and tactics for communities and agencies impacted by wildfire, Estes Park, CO. https://coco2024.exordo.com/programme/presentation/7 Selective Science Communications Practice Group—CFRI staff Hannah Brown and Brett Wolk provided subject matter expertise with the Colorado Forest Collaboratives Network to support development of a selective science communications practice group. The group served to develop an informal peer learning network and convened several workshops throughout 2024 for collaborative communicators to work through challenges and opportunities together related to selective science issues in social media, face-to-face conversations, and the news. Staff Hannah Brown provided subject matter expertise and attended sessions, developed content, and lead discussions. Summary: https://collaborativeconservation.org/2024/06/12/reflections-on-the-selective-science-communications-practice-group/ Northern Colorado Fireshed Communication, Education, & Outreach Committee—CFRI staff attend and actively participate in quarterly meetings, provide feedback on communications strategy for the Fireshed, and occasionally directly support developing messaging and publications, particularly around selective science. Delivered workshop on Science Communication to university and high school ecology students. Brett Wolk and Katie Magrath Novak. Panning for Nuggets of Science Gold: Reframing Ecological Science Communication. February 1st, 2024. Front Range Student Ecology Program, Fort Collins, CO. Published the following written products: • Brown, H. L., Cheng, A. S., Clark, N. C., Slack, A. W., & Wolk, B. H. (2024). Creating boundary objects supports knowledge co-development processes: A case study evaluation from the Colorado Front Range. *Journal of Forestry, 122*(4), 363-372. https://doi.org/10.1093/jofore/fvae010

	• Cheney, A., Jones, K., Stevens-Rumann, C. S., & Salerno, J. (2024). Perceived changes in social-ecological resilience in fire-prone ecosystems in Colorado. *Ecology and Society, 29*(4), 5. https://doi.org/10.5751/ES-15436-290405
Focal Area 6: Collaborative Capacity-building and Peer-learning Across Diverse Perspectives	
6.1 Develop, sponsor, support and report on between 2-4 training, continuing education and leadership development in collaborative processes for CFRI staff	2024 SWERI Leadership retreat: CFRI staff (6) participated in and contributed to the planning, logistics, meeting facilitation, and documentation for the 2024 SWERI Leadership Retreat October 2nd-4th, 2024, in Flagstaff, Arizona. The event convened approximately 25 staff across all SWERI to enhance zones of agreement on key issues impacting the SWERI. Agenda here: https://cfri.box.com/s/g1jfncv431eiigy1t9ye8gbdglt0lktn 2024 CFRI Strategic Planning Workshop: CFRI staff developed and convened the 2024 CFRI Strategic Planning Workshop, February 26-28th, 2024, to develop clarity around CFRI focal areas of expertise, break down silos between staff and program areas, and discuss strategic partnerships and future directions amongst all staff. Agenda here: https://cfri.box.com/s/pdinlo6dztvcftjmaekxc1mq2m9kqyfb
6.2 Develop, sponsor, support and report on training, continuing education and peer-learning opportunities around collaboration principles and best practices for forest and wildfire managers, researchers, collaborative leaders and interested and affected stakeholders.	CFRI staff continued supporting the Colorado Forest Collaboratives Network by serving as advisors with the Center for Collaborative Conservation to support network development. CFRI staff Ch'aska Huayhuaca served on the planning committee for the Colorado Forest Collaboratives Summit, held September 4th-6th, 2024. The event gathered over 100 collaborative leaders from across Colorado and the region in Durango, Colorado. Event summary here: https://collaborativeconservation.org/2024/12/11/2024-colorado-forest-collaboratives-summit-summary-resources/ CFRI helped convene and support facilitation for an initial meeting January 11, 2024, and ongoing meetings and communication to increase alignment with other Warner College of Natural Resources forestry related centers, including Colorado State Forest Service, Colorado Natural Heritage Program, and Center for Collaborative Conservation. CFRI staff Tony Cheng and Camille Stevens-Rumann contributed to development and served as subject matter experts in the podcast series United by Fire, produced by The Institute for Science and Society at the Denver Museum of Nature and Science. https://institute.dmns.org/united-by-fire/ Tony Cheng served as a subject matter expert for the US Forest Service Western Prescribed Fire Training Center interagency working group. Convened and led Firelab peer learning sessions in Fort Collins, Colorado. The CFRI Firelab peer learning series is an informal group that meets once a month for interactive peer-learning about wildland fire and forestry. Our goal is to bring together professors, students, professionals, and agency personnel from CSU and the local community to discuss current fire and forestry topics. • October 15, 2024. Challenges and Recommendations for Evaluating Treatment Effectiveness. Tony Vorster, Colorado State University Research Scientist Natural Resource Ecology Laboratory. • November 19, 2024. Red Feather Lakes Area Wildfire Defense Project: Structure and Strategy for Implementation in the Upper Poudre River Watershed: Daniel Bowker, Forests Program Manager, Coalition for the Poudre River Watershed. • December 17, 2024. Climate Adaptation and Assisted Migration for Reforestation in the Southwest. Marin Chambers, Colorado Forest Restoration Institute. Cory Dick, Coalition for the Poudre River Watershed. James Calabaza, Trees, Water, and People. Mike Battaglia, USFS Rocky Mountain Research Station.

6.3 Develop, sponsor, support and report on outreach, internships and collaborative learning events involving individuals from under-represented populations in forest restoration, resilience and risk mitigation decision-making and management.	CFRI staff continued learning and implementation of CSU Principles of Community to increase shared understanding and practice amongst CFRI staff, and explore opportunities to expand impact with external partners to better incorporate new ideas in forestry and fire research and collaborative adaptive management. Activities in 2024 included monthly team meetings to share individual team member learning and organizational successes and challenges, coordinate activities between CSU students and CFRI staff such as field crew trainings, student mentorship, field crew exit interviews, and initiating a CFRI student focused team, and enhance CFRI new employee onboarding materials. CFRI staff Hannah Brown and Allie Rhea attended the New Mexico Tribal Forest & Fire Summit, Santa Ana Casino, New Mexico, January 30th-February 1st, 2024, to grow knowledge about forest and fire management on Tribal and Ancestral Lands.

For FY24 agreement number 24-DG-11030000-020, CFRI reports the following cumulative accomplishments toward each project deliverables in the work plan for dates while the agreement was active, including July 1st, 2024 through December 31st, 2025:

Deliverable	Status of Deliverables
Focal Area 1. Spatial Wildfire Decision Support	
1.1 Expand engagement with between 1-3 cross-jurisdictional, multi-partner initiatives identified in federal- state Shared Stewardship strategies, NRCS strategic investments, State Forest Action Plans, US Forest Service focal investment areas to develop, update, or monitor cross-boundary, shared stewardship forest and wildfire resilience strategies.	CFRI continued supporting the development, customization, and application of spatial wildfire decision support planning frameworks to assist partners with cross boundary adaptive management in the following landscapes. Many additional landscapes across land ownerships, not listed here, were engaged with funding from US Forest Service Washington Office, national forest level units, and other funding sources. • We continued to worked closely with the Denver Water From Forests to Faucets Partnership. • Continued to support the Northern Colorado Fireshed Collaborative wildfire risk assessment applications and outcome tracking to inform landscape-scale strategies for wildfire risk reduction and future investment opportunities. • We continued to engage with Envision Chaffee County and Lake County Forest Health Councils to help partners apply the Community Wildfire Protection Plan and Recreation prioritization planning tools within the Upper Arkansas Rocky Mountain Restoration Initiative priority landscape. This included activities such as attending Chaffee and Lake County Forest Health Council meetings to help foresters apply landscape scale outcomes in project level forest management activities, engaging with County Commissioners to apply wildfire science for updating land use codes, developing online mapping tools to make wildfire risk and priority management areas more accessible, and making maps for communication specialists, annual accomplishment reports, and grant applications for the group.
1.2 Expand engagement with between 1-3 cross-jurisdictional, multi-partner initiatives not identified in federal-state Shared Stewardship strategies, NRCS strategic investments, State Forest Action Plans, US Forest Service focal investment areas to develop, update, or monitor cross-boundary, shared stewardship forest	CFRI continued supporting the development, customization, and application of spatial wildfire decision support planning frameworks to assist partners with cross boundary adaptive management in the following non-priority landscapes. • CFRI staff Brett Wolk and Stephanie Mueller, in collaboration with the Colorado State Forest Service, continued to develop, refine, collate, and release data for the Colorado Forest Management Activity Tracker. CFRI roles included conceptualization, communication, and leadership direction, as well as management of federal agency forest activity data systems and advising on database best management practices. CFRI continue to refine and socialize the tool and managed calls for 2024 data, which was then ingested, cleaned, and released on the Forest Tracker portal. Making forest and fire management data accessible across all land ownerships facilitates equitable access to information and resources for communities not in priority landscapes. www.coloradoforesttracker.org • CFRI engaged with the Upper Arkansas Forest Health Professionals, a multi-jurisdictional collaborative in the Upper Arkansas basin, to lend technical expertise in support of their efforts to identify and prioritize collaborative, cross-boundary forest management activities and identify and secure funding and other needed resources for implementing projects in Lake, Chaffe, Custer, and Fremont County. CFRI roles included supporting best practices for treatment data compilation and attribution, stewardship of completed and planned treatment data, webmapping,

and wildfire resilience strategies.	and facilitating county-level conversations about wildfire risk science to inform treatment planning. • CFRI continued engaged with the Upper Gunnison Shared Stewardship Council in support of the completion of the Gunnison Community Wildfire Protection Plan (CWPP) by leading application of spatial wildfire decision support tools and collaborative planning frameworks. The CWPP was signed in 2025 and CFRI continues to engage with the council to help translate wildfire risk principles and strategies to implementation. • Subject matter expert for many partners and emerging groups to support development and application of spatial wildfire decisions support frameworks, such as the San Luis Valley Wildfire Council, a multi-party collaborative group of public and private land managers focused on improving forest, community, and watershed resilience to wildfire in southern Colorado. Also, CFRI staff engaged with the Pike National Forest to continue to inform application of spatial wildfire decision support tools and processes for the South Platte Ranger District environmental analysis.
1.3 Develop, deploy, pilot test, monitor, and report on education, training, and coaching resources for a broader audience to be able to develop landscape forest and fire resilience strategies and action plans.	CFRI has completed numerous Risk Assessment Decision Support (RADS) projects across Colorado. RADS often produces landscape-scale strategies that identify vegetation treatment types and locations to reduce wildfire risk. Translating these landscape strategies into on-the ground action can be challenging for managers, particularly when narrowing priority treatment units to implementable management units or deciding where and why to work outside of priority treatment units. CFRI developed a technical guide for RADS users to move between priority treatment units (hundreds-thousands of acres) and actionable management units (tens-hundreds of acres). • Rhea, A., Slack, A., Huayhuaca, C., Edinger, J., Beeton, T., & Dunn, J. (2025). From landscape strategy to management unit development (CFRI-2512). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/12/Rhea_etal_FromLandscapeStrategytoManagementUnitDevelopment_CFRI_2512.pdf. CFRI engaged with several USDA Forest Service national, regional, and local staff to learn how entities were identifying, mapping, and attributing critical values at risk in the pre-season. Critical values at risk are the small set of values that a line officer would ask a fire responder to take an elevated, but meaningful level of risk to protect. Critical values at risk are often identified during a fire response, but research by CFRI and our SWERI partners found the need and opportunity to identify critical values at risk in the preseason to gain alignment on risks, help line officers communicate values at risk, support prefire mitigation around values at risk, and speed up strategy development during incidents. We compiled this learning to develop a short guide for other entities interested in developing critical values at risk in the preseason. • Aldworth and Beeton, T.A. (2025). Considerations for developing Critical Values at Risk in the preseason with partners. Colorado Forest Restoration Institute. Colorado State University. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/03/Aldworth_Considerations_developingCriticalValuesRisk_CFRI_2504.pdf.
1.4 Develop and publish between 2-4 written products, and deliver between 3-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report	We shared information through the following presentations and workshops: • Beeton, T.A., Wolk, B (2024). A primer on wildfire analytical tools for cross-boundary planning and response. Invited presentation and discussion with over 35 staff from the National Park Service Intermountain Region to find alignment with NPS planning tools and other spatial wildfire decision support frameworks. 11/18/2024. Virtual. • Beeton, T. A. (2025, July 28). Risk assessment and decision support (RADS): A framework and process for community wildfire planning and preparedness [Invited presentation]. Custer County Community Wildfire Protection Plan Core Team [remote]. https://cfri.box.com/s/jxamjigxzddgfrdbkc1am2fb0kore163.

on research, applications, effectiveness, and limitations of spatial wildfire decision support frameworks for achieving desired outcomes from cross-boundary, shared stewardship forest and wildfire resilience strategies.	• Cook, M.C., Huayhuaca, C., Rhea, A., Beeton, T. (2025). Northern Colorado Fireshed Collaborative: Project Outcomes Assessment [Oral Presentation]. Northern Colorado Fireshed Q3 Meeting, Loveland, CO. https://cfri.box.com/s/rqprw3tx41ck4p54pak44shgwofb2r7r. • Brett Wolk. *Forest to Faucets Effectiveness Monitoring Update*. From Forests to Faucets Partnership annual meeting, January 8th, 2025. Lakewood, Colorado https://cfri.box.com/s/90udrtn3rp7mbp9agbczaw6dvuumgxbl • Rhea A, B Wolk, and M McDonald. From Forests to Faucets Partnership: Wildfire Risk Assessment and Treatment Prioritization. From Forests to Faucets Partnership annual meeting, January 8th, 2025. Lakewood, Colorado. https://cfri.box.com/s/qplfpejfx9abbxplpa73al2lia1154hw • Edinger, J., Dunn, J., Wolk, B. (2025). Gunnison county community wildfire protection plan (CWPP) and Risk Assessment Decision Support (RADS) update. Invited presentation ot the Upper Gunnison Shared Stewardship Council, 2.27.2025. https://cfri.box.com/s/6w5wi5g8igk19lmrz5tgbdsummf1ipxc. • Dannels, R., Fordham-West, A., Mueller, S. The Colorado Forest Tracker: a CFCN Branching Out Session [webinar] (2025, May 22). Center for Collaborative Conservation. We shared information through the following written products: • Colavito, M.M., Beeton, T.A. (2025). Understanding and applying wildfire risk science and decision support tools. https://cfri.box.com/s/lyy4k8vq8ye2lg1fbqoau0fvjtcjkncz. • Edinger, J., Dunn, J., Heeren, A., Rhea, A., Ritter, S., and Wolk, B., 2025. Wildfire Risk Assessment and Treatment Prioritization for the Gunnison County Community Wildfire Protection Plan. Colorado Forest Restoration Institute, CFRI-2505. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/04/Edinger_etal_WildfireRiskTreatmentPrioritzation_GunnisonCountyCWPP_CFRI_2505.pdf • Courtney, K., Holm, F., Brousseau, J., Walker, S. E., Cheng, A. S., Hamilton, M., Nielsen-Pincus, M., Toman, E., & Salerno, S. (2025). Mapping community capacity to reduce vulnerability to wildfire in Colorado, USA. Forest Science. Advance online publication. https://doi.org/10.1007/s44391-025-00038-4

Focal Area 2. Collaborative Adaptive Management	
2.1 Collaborate and coordinate wi th other SWERI, and CFLRP program managers, to collect, analyze, and report on in-depth case studies of collaborative governance for between 3-6 projects as part of the National	CFRI staff continue coordinating with other SWERI and sustain regular communication to serve as a resource for USFS program managers with the national Collaborative Forest Landscape Restoration Program. This engagement includes conducting an assessment of collaborative resilience across all currently funded CFLRP projects across the country. During this performance period, CFRI and SWERI staff developed and deployed case studies in three CFLRP project landscapes (Rio Chama, Zuni Mountain, Western Klamath) to explore dimensions of participation, expectations, and motivations to participate in CFLRP and other collaborative forest landscape restoration projects, the goal of which is to offer recommendations for increasing and sustaining inclusive, diverse participation that aligns with motivations and expectations for engagement among entities. The case study data collection is complete, and SWERI is moving forward with analyzing and reporting on findings. Progress report can be found here: https://cfri.box.com/s/bx3ka1dqlz8xl3qd1lad6lqu9a7xx07p.

Collaborative Forest Landscape Restoration Program Common Monitoring Strategy.	
2.2 Collaborate and coordinate with other SWERI, and coordinators for cross-boundary, multi-partner forest and wildfire resilience collaboratives, to apply and report on the stages of collaborative readiness framework as both an assessment and a performance measurement tool for federal and state investments in wildfire resilience initiatives.	CFRI staff (Huayhuaca, Rapp, Courtney) Initiated expansion of the Stages of Collaborative Readiness to more explicitly connect it to **Community Readiness** through engagement with the Big Thompson Watershed Health Partnership. CFRI staff worked with key points of contact from the Partnership and gave an introductory presentation on 9/2/2025 to steer subsequent work and facilitated discussion. Supported the incorporation of the Stages of Collaborative Readiness framework into National Forest Foundation reporting standards for the Northern Colorado Fireshed Collaborative (NCFC) investment committee through the Collaborative Stages of Readiness Framework for NFF Capacity Grant Reporting – Activities, outputs, and example reporting requirements by stage.
2.3 Collaborate and coordinate with other SWERI and affected entities to develop, deploy, adapt, and report on 1-3 educational, training, and coaching resources to enhance collaborative adaptive management.	CFRI staff co-planned and convened, presented, and led adaptive management discussions at the USPP Monitoring JAM Session, November 21, 2024. This was attended by nearly 40 individuals from a variety of agencies and interests to integrate monitoring results of practices by partnership members to improve forest and fire management strategies. Funding also provided by the Pike and San Isabel National Forest that was augmented with this agreement to add capacity and bring additional CFRI insights and experience from working in other areas to the USPP group. Agenda and materials here: https://drive.google.com/drive/folders/149q-Nw4m4osHSCwUClf-oCfHZ0IySMr6. The workshop features presentations from CFRI (boldface) and partner speakers. • **Slack, A**. (2024). White Ranch Park's ponderosa pine and resin duct defense resilience following thinning and broadcast burning. Invited presentation and discussion at the USPP Monitoring Jam Session, November 21, 2024. Golden, Colorado • McDonald, M., **Rhea, A**. (2024). From Forests to Faucets Partnership's updated risk assessments and prioritization. Invited presentation and discussion at the USPP Monitoring Jam Session, November 21, 2024. Golden, Colorado. • Hill, E. (2024). Microclimates in a forest restoration treatment do not match narrow tree regeneration niches (Resort Valley Ranch). Invited presentation and discussion at the USPP Monitoring Jam Session, November 21, 2024. Golden, Colorado.

- Rudolph, S. (2024). Colorado State Forest biomass and carbon assessments framework updates and technology used for data evaluation. Invited presentation and discussion at the USPP Monitoring Jam Session, November 21, 2024. Golden, Colorado.

CFRI staff co-planned and convened, presented, and led adaptive management discussions at the Upper South Platte Partnership General Partnership Science Jam with CFRI, November 20, 2025. This was attended by over 60 participants from a variety of agencies and interests to integrate science and monitoring results of practices by partnership members to improve forest and fire management strategies. Funding also provided by the Pike and San Isabel National Forest that was augmented with this agreement to add capacity and bring additional CFRI insights and experience from working in other areas to the USPP group. **Agenda and materials here: https://cfri.box.com/s/9fsh8u3tpjsndy3w90527dxiijzz9gk1**. The workshop features presentations from CFRI (boldface) and partner speakers.

- **Chamberlain, C.** (2025). The many roles of fuel and restoration treatments. Invited presentation and discussion at the USPP Monitoring Jam Session, November 20, 2025. Golden, Colorado.
- **Cook, M.** (2025). Opportunities for aspen forests to mitigate wildfire hazard. Invited presentation and discussion at the USPP Monitoring Jam Session, November 20, 2025. Golden, Colorado.
- West, D. (2025). Mountain Pine Beetle along the Front Range, 2025 updates. Invited presentation and discussion at the USPP Monitoring Jam Session, November 20, 2025. Golden, Colorado.
- Woodard, K. (2025). Effects of disturbance on tree level resistance in ponderosa pine trees along the Colorado Front Range. Invited presentation and discussion at the USPP Monitoring Jam Session, November 20, 2025. Golden, Colorado.
- Batts, C., and Frame, B. (2025). Quarry Fire & Vegetation Monitoring: One Year of Post-Fire Recovery Cassidy Batts and Ben Frame. Invited presentation and discussion at the USPP Monitoring Jam Session, November 20, 2025. Golden, Colorado.

CFRI Staff (Huayhuaca) co-convened the Colorado Forest Collaboratives Network 2025 Forest Summit, which took place **Sept. 16-17, 2025, in Golden, Colorado**. The purpose of the summit was to connect place-based forest collaboratives from across the state and facilitate learning about issues most relevant to collaboratives. CFRI staff served on the planning committee supporting summit logistics, coordinating/ co-leading the morning session on the 17th, co-authoring the **summary report** for the event, and supporting event follow-up with presentations to the Governor's Forest Health Council Leveraging Resources Committee and the Colorado Forest Collaborative's Branching Out series. There were over 130 participants in person or online representing staff and representatives from place-based collaboratives and community-connected partners working on forest, wildfire, and watershed resilience issues across Colorado; leaders and personnel from state agencies including the Colorado State Forest Service, Division of Fire Prevention and Control, Colorado Department of Natural Resources, and Colorado Water Conservation Board; leaders and personnel from USFS (Region 2 and National Forests); boundary-spanning organizations (e.g., Coalitions and Collaboratives, National Forest Foundation, The Nature Conservancy, Keystone Policy Center); funders (e.g., Trust for Public Lands, Conversation Investment Management, Blue Forest); and industry (e.g., Colorado Mass Timber).

- Sanderson, J., Miles Cherney, A., Bruno, J., Hickey, L., Huayhuaca, C., Duke, E., Brandt, M., Dowling, L., Samulski, R., Isenhardt, E., Woodard, K., Lerch, A., McGrath-Novak, K. (Sept. 17, 2025). Designing for Uncertainty, Thriving in Community. Co-presented and co-facilitated virtually and in-person, Golden, CO. https://docs.google.com/presentation/d/1A-tstNjioWYUmBQzyU9v85H0MUjPhLATpe5Dfxmu3k8/edit?usp=sharing

2.4 Collaborate and coordinate wi th other SWERI and affected entities to compile, assess outcomes, and report on between 2-4 case studies in place-based adaptive management processes associated with collaborative, landscape-scale forest a nd wildfire resilience initiatives on federal lands.	Following the 2024 Alexander Mountain Fire on the northern Colorado Front Range, leadership of the Northern Colorado Fireshed Collaborative (NCFC) and the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) coordinated with members of the Colorado Forest Restoration Institute (CFRI) to develop a qualitative case study of the incident. The Alexander Mountain Fire provided the opportunity for CFRI to qualitatively evaluate the connection between strategic pre-planning activities across the Front Range, led by the NCFC and its partners including the ARP, and fire response actions in a real-world context. Specifically, this case study provided the opportunity to develop recommendations for the NCFC and its partners to improve the connections between pre-season planning, fire response, and post-fire recovery. The following report was developed and delivered to the NCFC to inform future work and priorities: • Aldworth, T., Huayhuaca, C., and Beeton T. (2025). The Alexander Mountain Fire: Improving the link between pre-fire planning, during fire response, and post-fire recovery. (CFRI-2513). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/12/Aldworth-et-al.-2025-CFRI-2513.pdf The Steering Committee of the Northern Colorado Fireshed Collaborative (NCFC) requested support from the Colorado Forest Restoration Institute (CFRI) to develop a survey to assess perceptions of the collaborative's performance. Previously, CFRI and the other Southwest Ecological Restoration Institutes (SWERI) had been asked by the USDA Forest Service Washington Office to develop and deploy an assessment tool to track collaborative governance within and across all newly authorized and extension projects under the Collaborative Forest Landscape Restoration Program (CFLRP) as part of the USDA Forest Service's Common Monitoring Strategy. The request from the NCFC provided an opportunity for SWERI adapt and apply the assessment tool to non-CFLRP landscapes to evaluate whether a given collaborative group is encouraging an effective and meaningful collaborative approach. CFRI led the SWERI in adapting the online, confidential survey SWERI developed for CFLRP project participants for distribution to NCFC participants. The SWERI then collected and analyzed baseline information from the survey and developed this report based on the CFLRP project reporting framework. The following report was produced: • Report: Huayhuaca, C., O'Reilly, H., Beeton, T.A., vonHedemann, N., Roberts, M., Cheng, A.S., Colavito, M.M., & Teel, T.L. (2025). Collaborative governance assessment report for the Northern Colorado Fireshed Collaborative. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/05/Huayhuaca_NCFC_CollaborativeGovernanceAssessmentReport.pdf
2.5 Develop and publish 2-4 written products, and deliver 3-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities, and best practices regarding strategies,	We shared information through the following presentations and workshops • Huayhuaca, C. (Nov. 22, 2024). PECS Stages of collaborative readiness: Preparing landscapes and communities for a future with fire. Presented virtually for the Programme for Ecosystem Change and Society (PECS) Methods Webinar Series and archived as part of the In Common Podcast Series: https://www.incommonpodcast.org/podcast/pecs-55-stages-of-collaborative-readiness-preparing-landscapes-and-communities-for-a-future-with-fire-with-chaska-huayhuaca/ • Huayhuaca, C. (March 27, 2025). Northern Colorado Fireshed Collaborative Governance Assessment Presentation of Results. Presented in person at the first quarter meeting of Northern Colorado Fireshed Collaborative, Boulder, CO. • Aldworth T., Huayhuaca, C., Beeton, T. (December, 2, 2025). Evaluating the link between pre-fire planning and fire response: The Alexander Mountain Fire. Association for Fire Ecology Congress. https://cfri.app.box.com/file/2100348163047. • Aldworth T., Huayhuaca C., Beeton T. (2025). The Alexander Mountain Fire: Recommendations to better link pre-fire planning to fire response. Invited presentation to the Northern Colorado Fireshed Collaborative. https://cfri.app.box.com/file/1821184389570?s=x11lttyqbk6it35966uoer95xfbc93nn • Slack, A. W. (2025, June 25). Pikes Peak Vegetation Management and Restoration Project: Collaborative adaptive management and conditions-based NEPA [Oral presentation]. Pikes Peak Ranger District (virtual).

capacities, and techniques to enhance the readiness, resilience and adaptiveness of multi-stakeholder forest and wildfire risk mitigation collaboratives to inform collaborative capacity-building investment strategies.	• Miles Cherney, C., Huayhuaca, C., Duke, E., Guillon, B., Sanderson, J. (Oct. 20, 2025). Summit Overview and Key Takeaways: Presentation to the Colorado Forest Health Council's Leveraging Resources Committee. Co-presented virtually. We shared information through the following written products: • Burri, C., Hickey, L., Huayhuaca, C., Lerch, A., McGrath Novak, K., Perreault, L., Wolk, B., & Young, C. (2025). Colorado forest resilience planning guide. Colorado State Forest Service. https://csfs.colostate.edu/wp-content/uploads/2025/02/Colorado_Forest_Resilience_Planning_Guide_February_2025_accessible.pdf • Beeton, T.A, O'Reilly, H., vonHedemann, N., Colavito, M.M., Teel, T.L., Huayhuaca, C., Snitker, A.J., and Cheng, A.S., 2024. CFLRP collaborative governance assessment report: A national baseline synthesis for the Common Monitoring Strategy. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/12/Beeton_CFLRP_ProgramCollaborativeGovernanceAssessment_CFRI_2419.pdf • von Hedemann, N., Beeton, T. A., Snitker, A., Colavito, M., Teel, T., Huayhuaca, C., & Cheng, A. S. (2024). Collaborative governance assessment: A summary of findings for the Northeast Washington Forest Vision 2020 CFLRP. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/07/vonHedemann_etal_CFLRP_NEWashington_Brief.pdf • Beeton, T.A, O'Reilly, H., vonHedemann, N., Colavito, M.M., Teel, T.L., Huayhuaca, C., Snitker, A.J., and Cheng, A.S., 2024. CFLRP collaborative governance assessment: A summary of findings for the Common Monitoring Strategy. Southwest Ecological Restoration Institutes. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/12/Beeton_etal_CFLRP_National_Brief.pdf

Focal Area 3. Ecological Monitoring and Research	
3.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D and other federal natural resource research programs to develop, deploy, and adapt monitoring strategies, and report on monitoring outcomes for between 2-4 projects that measure the biophysical outcomes pre- and post-fire treatments across spatial and temporal scales relative to collaboratively-defined desired conditions and outcomes. Outcomes	CFRI staff began planning for 2025 field season to support the collection, management, analysis, and reporting of forest vegetation and wildfire fuels monitoring data to examine longer term (e.g. 1-10 year) ecological trends following forest and fire management. This also included initiating hiring and developing training in field monitoring protocols for approximately 20 seasonal staff and undergraduate students. Sites monitored with at least partial funding from this agreement included (land ownership): • Post fire reforestation planting study (USFS) • Monument Oak Rx fire post treatment (USFS) • Little Morrison- Green Mountain Rx fire post treatment (USFS) • Forsythe II Rx fire post treatment (USFS) • Magic Feather Rx fire post treatment (USFS) • Revisiting 5-10 year post treatment sites associated with the Colorado Front Range Collaborative Forest Landscape Restoration Program (USFS)

may include, but are not limited to: a. Changes in fire metrics b. Post-fire forest recovery c. Post-fire watershed recovery d. Forest structure, composition, and arrangement e. Effects on wildlife.	
3.2 Collaborate and coordinate with affected entities to develop, deploy, adapt, and report on between 2-4 training, peer-learning and technical assistance resources (i.e., protocols, field guides, desk guides, short- courses) aimed at building and enhancing the capacity of agencies, organizations and collaboratives to monitor and measure the ecological effects of landscape restoration, wildfire risk mitigation, and post-fire forest and watershed recovery investments on achieving collaboratively-defined desired conditions and outcomes.	CFRI staff continued developing tools to communicate monitoring strategies and build capacity of other organizations to understand, implement, and integrate monitoring and adaptive management frameworks into their own organizational operations. This includes workshops, presentations and discussions, individual engagement with place based collaborative groups and other entities: • Slack, A. W., Morici, K. E., & Barrett, K. J. (May 16, 2025). Providing field-based monitoring guidance to build capacity for peer learning and science-based forest management [Oral presentation]. St. Vrain Forest Health Partnership Science Team Meeting, Longmont, CO. • Barrett, K.J. Monitoring Desired Conditions: Lessons Learned From the FR-CFLRP, Upper Monument Creek, and Other Front Range Landscapes. Presented to Pikes Peak Vegetation Management NEPA Stakeholders. May 2025. https://cfri.box.com/s/ftqkvw6a70k3zxgmm2dv930igvtltd6j • Funding from this agreement augmented funding with the Colorado Department of Natural Resources to work individually with partners to develop their own monitoring programs by drafting and editing field data collection protocols, advising on metrics and simple analyses, and mentoring staff on reporting results (Mancos Conservation District; South Platte Ranger District; Conifer Wildland Division; Boulder County Open Space; Jefferson County Parks and Open Space; Colorado State Forest Service – Salida). In 2025, CFRI staff contributed to monthly meetings, as well as frequent communication with the Colorado State Forest Service Monitoring Team, to continue building shared monitoring practices across organizations, advise and learn on monitoring protocols, share monitoring results, update locally relevant fuel models for monitoring, and discuss monitoring goals and recent ecological research. CFRI worked with CSFS field office staff at multiple forestry sites to discuss and train staff on monitoring protocols, and help support adaptive management to make monitoring data relevant to CSFS staff. In 2025, CFRI staff had over a dozen meetings with forest and fire managers one-on-one or small groups in the field at forest and fire management sites to discuss management planning, monitoring results, and conduct collaborative adaptive management to increase the effectiveness and application of forest management activities across Colorado. These occurred with a variety of agencies including Colorado State Forest Service, U.S. Forest Service, Natural Resources Conservation Service, local conservation districts, municipal open space agencies, non-governmental organizations, multi-part collaboratives, and other forest and fire management partners. CFRI staff (Wolk) led the organization, facilitation, and delivery of a 2 day overnight field trip for the Society for Ecological Restoration 11th World Congress on Ecological Restoration, September 29-30, 2025, Denver, Colorado. The trip included approximately 15 attendees from across the country, Europe and Australia. I presented ecological monitoring data on forest management outcomes at several sites with a goal to learn about local forest ecology while visiting with managers in the field to foster peer learning how to better balance the restoration of ecological processes with wildfire risk reduction needs. https://ser2025.org/portfolio/colorados-forests-and-fire-ecological-restoration-and-adaptive-management/

3.3 Leverage and combine CFRI and SWERI monitoring methods, data, and outcome measures with existing monitoring data networks to improve monitoring practices and draw stronger inferences that enhance knowledge of long-term post-treatment effects on forest conditions as the climate changes.	CFRI staff continued development and advancement of tabular and geospatial data collection and management systems to organize, summarize, and share CFRI monitoring findings with internal staff and external partners. CFRI staff continued to serve as a resource for other organizations and collaborative group partners in best management practices for data management. CFRI staff, Maggie Parrish, led planning and coordinated three Cross-SWERI Ecological Monitoring and Research workshops in 2025. These workshops aim to increase beneficial collaboration between the SWERI on topics of interest. These workshops led to the formation of field work and data management working subgroups led by members of each institute.
3.4 Develop and publish between 2-4 written products, and deliver between 4-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities, and best practices regarding mo nitoring pre-fire mitigation and post-fire recovery treatment outcomes on achieving ecological, economic a nd social objectives.	We delivered the following presentations: • Mueller S, Stevens-Rumann CS, Newton KRA, VanDusen HRA. 2024. Extreme Colorado 2020 fires: Treatments altered fire severity across forest types and days of burning. Southwest Association for Fire Ecology Meeting, November 2024, Santa Fe, NM. • Edinger, J. A., Mueller, S. E., Rhea, A. E., & Slack, A. W. (2025, April 14). Spatial heterogeneity in thinned forests: Using aerial imagery to evaluate forest management outcomes [Poster presentation]. IALE North America Annual Meeting, Raleigh, NC, United States. Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/07/IALE_Poster_2025_04_14.pdf • Slack, A.W., Wilson, M.A., Stevens-Rumann, C.S. (2025, December 3). Long-term impacts of forest restoration on ponderosa pine vigor and drought resilience in Colorado [Oral Presentation]. 11th International Fire Ecology and Management Congress, Association for Fire Ecology, New Orleans, LA, United States. Abstract Link on Whova. December 2-5. • Morici, K. (2025). “Break down: Early insights into wood decay in ponderosa pine forests.” 11th International Fire Ecology and Management Congress. New Orleans, LA, December 2-5. • Cook, M.C., Hart, S.J., Tuff, T.A., Schroeder, W., Balch, J.K. (2025). Aspen reduced recent fire intensity and severity in Southern Rockies forests [Oral Presentation]. Association for Fire Ecology 11th Annual Fire Congress, New Orleans, LA. https://cfri.app.box.com/s/kht8wqqayai5ssh1jbfnduwn2pn2svd9. December 2-5. We delivered the following written materials • Morici, KE and Parrish, MK (2024) Ophir Monitoring Summary: 3 years post-treatment. CFRI-2417. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/12/Ophir_Monitoring_3YearPostTreatment_Morici_CFRI_2417.pdf • Morici, KE and Flood, S (2024) Kawland Monitoring Summary: 3 years post-treatment. CFRI-2420. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/12/Kawland_Monitoring_3YearPostTreatment_Morici_CFRI_2420.pdf • Slack, A. W., & Lehnert, S. L. (2025). Rolling R Ranch monitoring summary (CFRI-2501). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/01/Slack_RollingRRanchSummary_CFRI_2501.pdf

	• Snyder, V., Parrish, M. K., & Chambers, M. E. (2025). 2021 Uncompahgre Plateau Collaborative Forest Landscape Restoration Project forestry internship program (FIP) monitoring report (CFRI-2502). Colorado Forest Restoration Institute. • Parrish, M. K., Chambers, M. E., & Snyder, V. (2025). 2022–2023 Uncompahgre Plateau Collaborative Forest Landscape Restoration Project forestry internship program (FIP) monitoring report (CFRI-2506). Colorado Forest Restoration Institute. • Schapira, Z., & Morici, K. (2025). Forsythe II prescribed fire: Unit 38C post-burn monitoring summary (CFRI-2510). Colorado Forest Restoration Institute. • Bartl-Geller, B. N., Chamberlain, C., Kane, J. T., & others. (2025). Brief communication: RxGaming—A flexible open-source tool using aerial lidar to incorporate tree spatial patterns in mechanical treatments. Journal of Forestry. Advance online publication. https://doi.org/10.1007/s44392-025-00059-4. • Chamberlain, J. P., van Wagtendonk, L., Bartl-Geller, B. N., North, M. P., Cansler, C. A., Meyer, M. D., Anderson, C. T., & Kane, V. R. (2026). Active-fire landscapes demonstrate structural resistance to subsequent fire and drought. Forest Ecology and Management, 601, 123345. https://doi.org/10.1016/j.foreco.2025.123345 • Harris, M. P., Coop, J. D., Balik, J. A., McFarland, J. R., Parks, S. A., & Stevens-Rumann, C. S. (2025). Aspen impedes wildfire spread in southwestern United States landscapes. Ecological Applications, 35(5), e70061. https://doi.org/10.1002/eap.70061
Focal Area 4. Climate Adaptation and Post-Fire Recovery	
4.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D to co-sponsor, co-convene and report out on between 2-4 workshops and symposia that bring together researchers and managers to share knowledge and lessons learned about post-fire reforestation and watershed recovery outcomes.	CFRI staff (Chambers) organized and facilitated a workshop as part of the Center for Collaborative Conservation Branching out peer learning series, entitled Branching out: Cone collection training for professional arborists on September 13, 2025. CFRI staff worked closely with American Forests, National Forest Foundation, Colorado State University Extension, The Nature Conservancy, and Colorado State Forest Service to organize and facilitate the workshop. Over 30 professional arborists from across Northern Colorado attended to receive training in tree cone collection to increase capacity for reforestation needs. The workshop additionally offered International Society of Arborists continuing education credits (1). CFRI staff (Chambers) organized and facilitated a workshop, entitled Tribal-focused reforestation document development on July 16, 2025. CFRI staff worked closely with Trees Water People, USDA Reforestation, Genetics, Nurseries Resources, New Mexico Highlands University, and New Mexico State University to organize and implement the workshop. Partners gathered professionals and interested and invested parties from more than 20 Tribes, agencies, and organizations across New Mexico to discuss a reforestation guidance document co-developed with Tribal professionals. CFRI staff (Chambers) organized and facilitated the Reforestation pipeline workshop to improve operational outcomes, SW USA on April 2, 2024. CFRI staff worked closely with New Mexico State University, New Mexico Highlands University, USDA Reforestation, Nurseries, and Genetic Resources, USDA Southwest Climate Hub, National Institute of Applied Climate Science, and American Forests. The workshop gathered professionals from >24 organizations across the Southwestern US who practice or have interest in reforestation training and content.
4.2 Collaborate and coordinate with affected entities, other SWERI, other university researchers, and Forest Service R&D to compile, synthesize, and report on 2-4 research findings on post-fire reforestation and	CFRI staff Marin Chambers and others, in coordination with research partners at New Mexico State University and New Mexico Highlands University, in 2025 continued convening the Southwest Reforestation Partnership. The mission of the Partnership is to support current and future reforestation needs in Arizona, Colorado, New Mexico, and Utah by building cross boundary partnerships to exchange information, technology, and expertise in support of the development of critical capacity, research, and infrastructure. Participants include leadership from state forestry agencies in all four states, reforestation and timber management leadership from US Forest Service regions 2, 3, and 4, academic partners, non-government organizations, and others. The goals are to create a network of reforestation actors that can leverage resources, expertise, and authority to be efficient and effective

watershed recovery trends in collaboration with on-the-ground managers.	across all aspects of the reforestation pipeline – seed, nursery, outplanting, post-planting, and monitoring. CFRI staff (Chambers) participated on the steering committee (American Forests, ARP staff, CFRI) and core team (American Forests, ARP staff, CFRI, Rocky Mountain Research Station, Coalition for the Poudre River Watershed, Colorado State Forest Service for the Arapaho-Roosevelt Pawnee National Forest/Grassland Reforestation Strategy facilitated by American Forests. CFRI staff participated in quarterly Watershed Wildfire Protection Group meetings with water utilities, consultants, and state and federal agencies, to learn about watershed and wildfire issues and help partners integrate the latest science into watershed protection planning, management, and policy.
4.3 Collaborate and coordinate with affected entities, other SWERI and university researchers, Forest Service R&D, and other entities to explicitly connect fuels management, wildfire response, and post-fire recovery strategies and operational actions relative to water supplies and tree regeneration refugia at risk of loss from wildfire.	CFRI staff assisted with data sharing and supported conceptual integration for existing CFRI post-fire watershed risk analysis with the Colorado Water Conservation Board Wildfire Ready Watershed program. This created efficiencies for place-based groups and state agencies to better leverage existing data. CFRI staff (Allie Rhea) engaged with several groups developing Wildfire Ready Action Plans (WRAPs) by providing fire and watershed modeling data and technical expertise in landscapes CFRI has helped apply spatial wildfire decision support planning frameworks. This included: 1) the Nork Fork of the South Platte WRAP; 2) the St. Vrain WRAP; and 3) the Crested Butte. We continued working with CWCB leadership to explore better integration and leveraging of expertise with CFRI watershed planning tools and the Wildfire Ready Watersheds program, for example through serving on CWCB's forest health technical assistance panel.
4.4 Develop and publish between 2-4 written products, and deliver between 4-6 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, best practices, and outcome measures regarding po st-fire reforestation and watershed recovery.	CFRI developed the following written materials: • Jones, K. W., Cadol, D., Morgan, M., Stevens-Rumann, C. S., Agnew, D., Burney, O., Calabaza, J., Chambers, M. E., Edgeley, C. M., Falk, D., Hughes, L. G., Marsh, C., Schultz, C. A., McCarthy, L., Morrison, R., Montoya, M., Padowski, J., Piccarello, M., Pinto, J. R., Roach, J., Roberts, M., Rodman, K., Triepke, J., Tsinnajinnie, L., von Hedemann, N., Webster, A. J., Buettner, W. C., Fernandez Leger, A., Mineau, A., Rotche, L., Russell, G., & Woolet, J. (2025). A horizon scan to inform research priorities on post-wildfire forest restoration and recovery in the western United States. Frontiers in Forests and Global Change, 8, 1595886. https://doi.org/10.3389/ffgc.2025.1595886 • Jones, K. W., Rodman, K. C., Roberts, M., Chambers, M. E., von Hedemann, N., Stevens-Rumann, C., Cadol, D., & Morgan, M. (2025). Research priorities on post-wildfire forest restoration and recovery in the western United States (Fact sheet, 2 pp.). Southwest Ecological Restoration Institutes and Intermountain West Transformation Network. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/08/p17192coll1_1255.pdf • Schloegel, C. A., Sloan, J. L., & Chambers, M. E. (2025). Piñon cone and seed collection for reforestation: Frequently asked questions and answers in Colorado and New Mexico (CFRI-2511). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/09/Schloegel-et-al-2025-pinon-pine.pdf • Rodman, K. C., Schloegel, C. A., Chapman, T. B., Pineda, M., Chambers, M. E., Fornwalt, P. J., & Stevens, J. T. (2025). Give seeds a chance: Opportunities and techniques to re-establish forests using post-fire tree seeding. Ecosphere. https://doi.org/10.1002/ecs2.70424 • McFarland, J. R., Coop, J. D., Balik, J. A., Rodman, K. C., Parks, S. A., & Stevens-Rumann, C. S. (2025). Extreme fire spread events burn more severely and homogenize postfire landscapes in the southwestern United States. Global Change Biology, 31(2), e70106. https://doi.org/10.1111/gcb.70106

	• Kampf, S. K., Stevens-Rumann, C. S., Nunes, L., Sequeira, A. C., Rego, F. C., Fernández, C., & others. (2025). Fire, fuel, and climate interactions in temperate climates. AGU Advances, 6, e2024AV001628. https://doi.org/10.1029/2024AV001628 CFRI delivered the following presentations: • Chambers, M.E., Stevens-Rumann, C.S., Rhea, A., Barrett, K. Drivers and informed trajectories of natural post-fire forest recovery four years following Colorado and Wyoming wildfires. Association for Fire Ecology Congress, December 2-5, 2025 • Stevens-Rumann, C.S., Chambers, M.E., Barett, K., Wilson, M., Peterson, C. Reforestation in a changing climate: seedlings love the high mountains. Association for Fire Ecology Congress, December 2-5, 2025. • Chambers, M. Need for Native Conifer Seeds for Post-fire Reforestation. Invited presentation, Branching out: Cone collection training for professional arborists, September 13, 2025. https://cfri.app.box.com/file/1995671761561 • Chambers, M. "Preliminary lessons learned from a seedling planting study in the 2020 Cameron Peak Fire, Colorado. Invited presentation to the American Forests and Planscape Reforestation Summit, Jan 15, 2025. • Rhea, A. (2025, June 5). The role of forests and wetlands in pre-fire mitigation and post-fire recovery [Invited fieldtrip oral presentation]. NIDIS National Soil Moisture Workshop, Red Feather Lakes, CO, United States.
Focal Area 5: Translating Science Principles to Practice	

5.1 Collaborate and coordinate with the other SWERI, land and wildfire managers, regional and statewide boundary organizations and collaboration networks, RMRS and other science delivery entities to co- organize, convene and/or complete reporting on the SWERI Cross Boundary Landscape Restoration Workshop and/or between 1-3 follow-up topic- or geography-specific workshops.	CFRI made progress on final reporting for the 2023 SWERI Cross-boundary workshop final report.
	
	CFRI staff (Wolk and Huayhuaca) in coordination with the Center for Collaborative Conservation and Collaborative Decision Resources organized a delivered an overview and discussion of how to apply the Colorado Forest Resilience Planning Guide among practitioners.
	• Brett Wolk, Katie McNovak, and Laura Hickey. Colorado Forest Resilience Planning Guide. Colorado Forest Collaboratives Network Branching Out learning series. April 17, 2025. Virtual.
	  ○ Presentation: https://cfri.box.com/s/i171gsfe34dw97kd119z7ixfqqy8zb7w
	  ○ Resource page: https://docs.google.com/document/d/1NRy85AET6wsASl8ZLkzBz_0YaXlwtieOfK8AWXanIzA/edit?tab=t.0
	
	CFRI staff (Huayhuaca and Cheng) Co-organized and facilitated with the Coalitions and Collaborative **the Future of the Forests Partnership Summit** that took place **June 16-18, 2025 in Boulder, Colorado. The purpose of the summit was to** workshop ideas for positive action amid changes to national policy and federal land management agencies and to co-develop actionable knowledge to advance forest resilience initiatives. The workshop brought together over 50 individuals across federal, state, and local government, Tribal and Indigenous Stewardship organizations, non-governmental organizations, private sector, and philanthropy.
	• Bruno., J., Cheng, T., d'Auria Ryley, T., Duke, E., Harrell, M., Huayhuaca, C., McDonald, M., Nordgren, J., Reed, R. (June 16, 2025). Future of the Forests Partnership Summit. Presentation, facilitated activities, and discussions, Boulder, CO. https://docs.google.com/presentation/d/1GzDor6N-jGzmdE-59bGEtJQAFFn7w3bQ/edit?usp=sharing&ouid=116089806821118898287&rtpof=true&sd=true

5.2 Develop and disseminate between 2-4 outreach products through a diversity of media (i.e., written briefing papers, video, podcasts, social media, colorful graphics, photos guides, Story Maps) that distill the scientific and management complexities about forest restoration, resilience and wildfire risk mitigation in a changing climate targeted to general audiences. Topics generally support and align with the projects and identified needs within other focal areas in this work plan, such as: a. Foundational principles of forest restoration, resilience and wildfire risk mitigation in the Southern Rocky Mountains and Interior West. b. Lessons learned from applications of risk assessment decision support methodologies to prioritize forest restoration and wildfire risk management actions at multiple geographic and social scales, from Community Wildfire Protection Plans to large watersheds encompassing multiple ownerships and jurisdictions to regional or national programs. c. Lessons learned from applications of the Potential Operational Delineations (PODs) framework to advance pre-fire fuel treatment planning and cross-boundary wildfire response.	We updated a widely-used story map on PODs for incident and non-incident management: Aldworth, T., Beeton, T., Edinger, J., Ritter, S. (Alphabetical) (2025 Update). Potential Operational Delineations (PODS) StoryMap Collection. Colorado Forest Restoration Institute, Colorado State University. https://storymaps.arcgis.com/collections/f513b2593f5342a59207334207d853a8. CFRI developed a practitioner-oriented story map to support learning about and application of our Risk Assessment and Decision Support (RADS) process and products for moving from project area prioritization units to implementable management units on the ground. https://storymaps.arcgis.com/stories/c999a842cd1a4fdab442e33700a54025 CFRI staff (Aldworth) and CSU colleagues participated in the Association of Fire Ecology Fire Ecology Chats Podcast to discuss the implications of their new study evaluating the use and recommendations to improve the Incident Strategic Alignment Process (ISAP). Keane, R. (2025, Dec 18). Episode 76: Innovation to support wildfire risk-based decision-making: examining the Incident Strategic Alignment Process – featuring W. Cole Buettner, Tyler Aldworth, and S.M. Greiner. Fire Ecology Chats Podcast. https://fireecology.org/feco-podcast/ep76 CFRI staff, in collaboration with the Colorado State Forest Service, Rocky Mountain Research Station, and CSU Warner College of Natural Resources created a Monitor Handbook Overview video. This video series supplements our CFRI Monitoring Handbook, which provides a framework for monitoring forest management in conifer forests of the western United States using field-based data collection methods. Intended users include foresters, field technicians, and forest program managers seeking to work for or develop a monitoring program. https://youtu.be/UCy6UjHJoi8?si=G6hl2WnFfbYWjTFg Completed 2024 CFRI Facts at a Glance. https://cfri.box.com/s/zmezowjpaawemydq7vtgdnn3j7x3xxrt Updated 2024 CFRI Brochure. https://cfri.box.com/s/0ji2wy2d6day21ncpaom5gh2e4nip2jw

d. Methods and best practices to enhance collaborative resilience for cross-boundary shared stewardship of high-priority landscapes. e. Operationalizing climate change decision support tools to inform forest landscape planning and wildfire risk assessments.	
5.3 Develop, maintain, and regularly update CFRI online platforms and social media to communicate latest science applications that produced outcomes from forest restoration and wildfire risk management projects and programs.	CFRI staff continue maintaining up to date information and links on CFRI website and all associated pages, including posting publications, current events, and other information to keep the website up to date and relevant. In 2025, CFRI staff expanded and refined social media strategies to increase the reach and impact of forest restoration and wildfire risk reduction messaging across Facebook, Instagram, LinkedIn, and YouTube. Analytics indicate measurable growth in audience engagement and information dissemination. YouTube performance improved with an 8% increase in views, a 33% increase in subscribers, and a 15% increase in watch time compared to 2024, reflecting stronger interest in video-based educational content. Instagram reach grew by 32.3%, accompanied by a 333.3% increase in link clicks, demonstrating enhanced success in directing audiences to CFRI resources and programs. CFRI also established and grew its LinkedIn presence, generating 1,915 impressions, reaching 988 users, and achieving a 13.7% engagement rate, supporting professional and partner outreach. On Facebook, CFRI maintained a steady audience of 1,045 followers, generating 2,955 views and 279 engagements. Collectively, these metrics highlight CFRI's continued progress in delivering accessible, relevant information to diverse audiences and strengthening public awareness of forest restoration and wildfire resilience efforts. CFRI staff began updating and standardizing processes for internal publications to provide more profession and consistent content for our publications.
5.4 Develop and publish 1-2 written products, and deliver 2-4 presentations at professional meetings, peer- learning events, academic-oriented conferences, and policy-maker briefings to report on lessons learned and best practices for translating science-based principles into practice for forest restoration, resilience a nd wildfire risk mitigation.	We produced the following presentations • Cheng, A.S. "Staging and situating wildland fire science & technology products to be meaningful and actionable to local-level managers and their partners". Presentation to the National Science Foundation's FIRE-PLAN Community Meeting, November 8, 2024, Boulder, CO. • Heeren, A. (2025). Defensible or Not? Modeling Wildland Firefighters' Structure Defensibility Assessments. Invited presentation to the CFRI Fire Lab. Fort Collins, Colorado, February 17. Presentation poster Link. • Buettner, W.C., Aldworth, T. (December 9, 2025). Innovation to support wildfire risk-based decision-making: examining the Incident Strategic Alignment Process. CFRI Firelab. https://cfri.app.box.com/file/1599630318147?s=lnzhynxvslzyp2450vfwcav4s67k9tz6 • CFRI staff (Wolk and Stevens-Rumann) co-developed workshop and field visit, and led coordination with Cindy Williams (Envision Chaffee), and J.T Shaver (CSFS) to deliver presentation for CSU President Amy Parsons and members of her cabinet as part of CSU Presidents office State Tour to western Colorado, Buena Vista, Colorado, July 7, 2025. Included a field visit with CFRI field crew to demonstrate ecological monitoring protocols and adaptive management discussions. Presentation: https://cfri.box.com/s/o3l667vibc4akd9tpv5z3oef3r1oc6n3

	• CFRI staff (Wolk) Delivered presentation and discussion: Knowledge Co-Production and Tools for Ecology Informed Forest and Fire Management. November 5th, 2024, Colorado State Forest Service annual meeting. Fort Collins, CO. We produced the following written information • Heeren, A., & Brown, H. L. C. (2025). Is this structure defensible? Understanding wildland firefighters' perceptions of structure defensibility (CFRI-2503). Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/03/Heeren_IsThisStructureDefensible_CFRI_2503.pdf • Hickey, Laura, Huayhuaca, Ch'aska, McGrath Novak, Katie, Wolk, Brett, and Courtney Young. Colorado Forest Resilience Planning Guide summary document. April, 2025. Developed for the Colorado Forest Health Council Leveraging Resources Committee. https://drive.google.com/file/d/16tI4Y4JoXSViHsTv80WTbQu0XEHOoPU8/view • Courtney, K., Walker, S., Brousseau, J., Holm, F., Cheng, A., Hamilton, M., Beeton, T., Nielsen-Pincus, M., Toman, E., Paige Fischer, A., and Salerno, J. (2024). Informing funding and resource allocation within Colorado for local wildfire mitigation capacity. https://cfri.colostate.edu/wp-content/uploads/sites/22/2024/09/Courtney-et-al.-2024_-Insights-from-Community-Interviews_Brief-1.pdf.
Focal Area 6: Collaborative Capacity-building and Peer-learning Across Diverse Perspectives	
6.1 Sustain and adaptively manage a responsive, accountable, and inclusive organization capable of achieving CFRI's legislative duties and delivering on the annual program of work on time and within budget.	In 2025, coordination efforts focused on strengthening internal systems for project tracking, budgeting, and information management to ensure work is completed on time and within budget. Research Coordinators maintained centralized databases, such as Smartsheet and Box, to organize accomplishments, streamline information flow, and support transparent reporting across projects and agreements. This included developing and managing agreement budgets, submitting financial documentation, and organizing travel to Washington DC for CFRI Leadership. Published CFRI 2024 annual report per legislative Duty 5 in Southwest Forest Health and Wildfire Prevention act of 2004. • Wolk, BH. (2025). Colorado Forest Restoration Institute 2024 Annual Report. Colorado Forest Restoration Institute. https://cfri.colostate.edu/wp-content/uploads/sites/22/2025/09/2024-CFRI-Annual-Report_September-2025.pdf
6.2 Develop, sponsor, support and report on between 1-4 training, continuing education a nd leadership development in collaborative adaptive ecosystem management processes for CFRI staff.	2025 SWERI Governance retreat: CFRI staff (5) participated in and contributed to the planning, logistics, meeting facilitation, and documentation for the 2025 SWERI Leadership Retreat October 13th-15th, 2025, in Las Vegas, NM. The event convened approximately 13 staff across all SWERI to enhance zones of agreement on key issues impacting the SWERI. Agenda here: https://cfri.box.com/s/2hznrhxyg8lxn9jjaue60kgg6h3h79s8 2025 CFRI Strategic Planning Workshop: CFRI staff developed and convened the 2025 CFRI Strategic Planning Workshop, February 10-12th, 2025, to develop clarity around CFRI capability areas, break down silos between staff and program areas, and discuss strategic partnerships and future directions amongst all staff. Agenda here: https://cfri.box.com/s/mjxn2f9dl53is9gvbbsinr8a0aox73am Convened and led Firelab peer learning sessions in Fort Collins, Colorado. The CFRI Firelab peer learning series is an informal group that meets once a month for interactive peer-learning about wildland fire and forestry. Our goal is to bring together CFRI, along with professors, students, professionals, and agency personnel from CSU and the local community to discuss current fire and forestry topics.

	• February 17, 2025. Defensible or Not? Modeling Wildland Firefighters' Structure Defensibility Assessments. Alex Heeren, CFRI • April 21, 2025. Mass Timber: A Solution to Colorado Forest Health? Will Lepry, Colorado Mass Timber Coalition. • December 9, 2025. Incident Strategic Alignment Process: An inside look. Cole Buettner, Public Lands Policy Group and Ty Aldworth, CFRI.
6.3 Develop trainings, resources, internal processes, and organizational structures for CFRI staff to be knowledgeable about and implement principles of diversity, equity, and inclusion with internal and external colleagues.	CFRI staff continued learning and implementation of CSU Principles of Community to increase shared understanding and practice amongst CFRI staff, and explore opportunities to expand impact with external partners to better incorporate new ideas in forestry and fire research and collaborative adaptive management. Activities in 2025 included monthly team meetings to share individual team member learning and organizational successes and challenges, coordinate activities between CSU students and CFRI staff such as field crew trainings, student mentorship, field crew exit interviews, and maintaining a CFRI student focused team and CFRI employee onboarding materials. Collaborative Decision Resources facilitated a CFRI staff training on interest-based problem-solving to inform large-scale multi-partner collaborative engagement, facilitation, and mediation in forest and fire management contexts. This was held during our 2025 CFRI Strategic Planning Workshop on February 12, 2025.

For FY25 agreement number 25-DG-11030000-009, CFRI reports the following cumulative accomplishments toward each project deliverables in the work plan for dates while the agreement was active, including July 1st, 2025 through December 31st, 2025:

Deliverable	Status of Deliverables
Focal Area 1. Spatial Wildfire Decision Support	
1.1 Engage with at least 2 cross jurisdictional, multi-partner initiatives to develop, update, and/or monitor cross boundary, shared stewardship forest and wildfire resilience spatial wildfire risk strategies that reflect local needs and priorities. To the extent possible, engage in at least one priority landscape identified in federal-state Shared Stewardship strategies, NRCS strategic investments, State Forest Action Plans, or US Forest Service focal investment areas, and one landscape not identified in priority plans	In Progress.
1.2 Engage with at least one cross jurisdictional, multi-partner initiatives in priority or non-priority landscapes to codevelop, refine, and report on the application and integration of incident response frameworks and decision-support tools (i.e., critical values at risk inventories, incident strategic alignment process, Risk Management Assistance, PODs-based atlases) within locally-informed spatial fire planning processes.	CFRI initiated a collaborative effort with members of the Northern Colorado Fireshed Collaborative, Arapahoe and Roosevelt National Forests, Colorado State Forest Service, The Ember Alliance, Coalition for the Poudre River Watershed, and Larimer County on integrating concepts from the Incident Strategic Alignment Process (ISAP), incident management decision space and opportunities with community-level wildfire planning. We worked with The Ember Alliance on a pilot to integrate critical values at risk inventories into the Livermore Colorado Community Wildfire Protection Plan (CWPP) process.
1.3 Develop and publish between 1-3 written products or multimedia summaries, and deliver between 2-4 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policymaker briefings to report on research, applications, effectiveness, and limitations of spatial wildfire decision support frameworks for achieving desired outcomes from cross boundary, shared stewardship forest and wildfire resilience strategies.	We developed the following presentations: Beeton, T. A. (2025, October 30). Local and regional risk assessments to inform project priorities in the Upper Arkansas [Invited presentation]. Upper Arkansas Forest Health Professionals meeting, Salida, CO, United States. Virtual. https://cfri.box.com/s/cglosle99cvl3av8j43l1l493y6d16to. Cook, M.C. (2025). Treatment Evaluation and Landscape Outcomes Monitoring (TEALOM): A case study of the Northern Colorado Fireshed [Oral Presentation]. Boulder County Fireshed Bi-annual Meeting, Longmont, CO. https://cfri.box.com/s/n7713ljia7b00oxmxbbej7n9pecioadd
Focal Area 2. Collaborative Adaptive Management	
2.1 Collaborate and coordinate with other SWERI and CFLRP program managers, to collect and analyze data to report on progress updates from baseline surveys previously administered to measure collaborative governance and resilience for projects funded as part of the National Collaborative Forest Landscape Restoration Program Common Monitoring Strategy.	Continue collaborating and ongoing communication with national CFLRP program managers to align monitoring plans with program needs in 2026.

2.2 Collaborate and coordinate with other SWERI and affected entities to develop and deliver at least 2 educational, training, and coaching resources that enhance moving collaborative adaptive management processes to forest and fire implementation practices.	In progress.
2.3 Collaborate and coordinate with other SWERI and affected entities to report on between at least 2 case studies in place-based adaptive management processes associated with collaborative, landscape-scale forest and wildfire resilience initiatives.	In progress.
2.4 Develop and publish 1-3 written products or multimedia summaries, and deliver 1-3 presentations at professional meetings, peerlearning events, academic-oriented conferences, and policy-maker briefings to report on strategies, capacities, and best practices regarding strategies, capacities, and techniques to enhance the readiness, resilience and adaptiveness of multi-stakeholder forest and wildfire risk mitigation collaboratives to inform collaborative capacity-building investment strategies.	We developed the following presentations: Miles Cherney, C., Huayhuaca, C., Duke, E., Guillon, B., Hickey, L., Sanderson, J. (Nov. 18, 2025). Branching Out: Summit 2025 Overview and What's Next? Presented virtually at the Colorado Forest Collaboratives Network Branching Out series. We developed the following written materials Cherney, A.M., Huayhuaca, C., Duke, E., Sanderson, J. (2025). 2025 Colorado Forest Collaboratives Summit: Summary and Resources. Colorado Forest Collaboratives Network.

Focal Area 3. Ecological Monitoring and Research	
3.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, USDA Forest Service R&D, US DOI research centers, and/or other natural resource research programs to hire and train a field crew, develop and adapt monitoring strategies with project implementors, and collect, process, and catalogue monitoring data for at least 2 projects that measure the biophysical outcomes pre- and post-forest management activities and/or wildfires across spatial and temporal scales relative to collaboratively-defined desired conditions and outcomes. Outcomes may include, but are not limited to: a. Changes in prescribed fire metrics b. Post-fire forest recovery c. Post-fire watershed recovery d. Forest structure, composition, and arrangement e. Wildfire hazard and fuel loading f. Remotely sensed measures of forest resilience and wildfire hazard	Summer 2026 field crew hiring was initiated to start recruiting field crew leaders and assistant crew leaders and advertising student field crew positions.
3.2 Collaborate and coordinate with affected entities to develop, deploy, adapt, and/or report on at least 2 training, peer-learning and technical assistance resources (i.e., protocols, field guides, desk guides, short courses) aimed at building and enhancing the capacity of agencies, organizations and collaboratives to monitor and measure the ecological effects of landscape restoration, wildfire risk mitigation, and post-fire forest and	In progress.

watershed recovery investments on achieving collaboratively defined desired conditions and outcomes.	
3.3 Develop and publish between 1-2 written products or multimedia summaries, and deliver between 2-4 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policymaker briefings to report on strategies, capacities, and best practices regarding monitoring pre-fire mitigation and post-fire recovery treatment outcomes on achieving ecological objectives.	We produced the following presentations and workshops: Cook, M.C. (November 20, 2025) Aspen's influence on fire radiative power and burn severity [Oral Presentation]. Southern Rockies Fire Science Exchange Webinar Series, Online Remote. https://www.frames.gov/catalog/71193
Focal Area 4. Post-Wildfire Reforestation and Recovery	
4.1 Collaborate and coordinate with affected entities, other SWERI, other university researchers, US DOI and/or Forest Service R&D to co-sponsor, co-convene and report out on at least one workshop and symposia that brings together researchers and managers to share knowledge and lessons learned that improves post-fire reforestation and watershed recovery outcomes.	In progress.
4.2 Collaborate and coordinate in at least one landscape with affected entities, other SWERI and university researchers, Forest Service R&D, and/or other entities to explicitly connect fuels management, wildfire response, and post-fire recovery strategies and operational actions relative to water supplies and tree regeneration refugia at risk of loss from wildfire.	In progress.
4.3 Develop and publish between 1-3 written or multimedia products, and deliver between 2-3 presentations at professional meetings, peer-learning events, academic-oriented conferences, and policy-maker briefings to report on strategies, best practices, and outcome measures regarding post-fire reforestation and watershed recovery in collaboration with on-the-ground managers.	In progress.
Focal Area 5: Translating Science Principles to Practice	
5.1 Collaborate and coordinate with the other SWERI, land and wildfire managers, regional and statewide boundary organizations and collaboration networks, RMRS and other science delivery entities to co-organize, convene and/or complete reporting on the SWERI Cross Boundary Landscape Restoration Workshop and/or one follow-up topic- or geography-specific workshop.	In progress.

5.2 Develop and disseminate at least 3 outreach products using a variety of media (i.e., written briefing papers, video, podcasts, social media, colorful graphics, photos guides, Story Maps) that distill the scientific and management complexities about forest resilience and wildfire risk reduction. Topics will be determined based on needs of partners and affected entities as well as opportunities to augment and expand impact of products identified within other focal areas throughout this work plan, such as: a. Foundational principles of forest restoration, resilience and wildfire risk mitigation in the Southern Rocky Mountains and Interior West. b. Lessons learned from applications of risk assessment decision support methodologies to prioritize forest restoration and wildfire risk management actions at multiple geographic and social scales, from Community Wildfire Protection Plans to large watersheds encompassing multiple ownerships and jurisdictions to regional or national programs. c. Lessons learned from strategic fire response applications of the Potential Operational Delineations (PODs) framework to advance pre-fire fuel treatment planning and crossboundary wildfire response. d. Methods and best practices to enhance collaborative resilience for cross-boundary shared stewardship of high-priority landscapes. e. Operationalizing decision support tools to inform forest landscape planning and wildfire risk assessments.	In progress.
5.3 Develop, maintain, and regularly update CFRI online platforms and social media to communicate latest science applications that produced outcomes from forest restoration and wildfire risk management projects and programs.	CFRI staff continue to update CFRI web presence across homepage, social media, and video platforms.
Focal Area 6: Collaborative Capacity-Building	
6.1 Sustain key relationships and implement technological advances that align with staff needs for efficient administration to adaptively manage a responsive, accessible, and accountable organization capable of achieving CFRI's legislative duties and delivering on the annual program of work on time and within budget.	CFRI staff continue to leverage Smartsheet to improve efficiencies in project planning and budgeting.
6.2 Develop, sponsor, support and report on at least 2 trainings or continuing education and leadership development opportunities in collaborative adaptive ecosystem management processes for CFRI staff.	CFRI staff began planning the 2026 CFRI Staff Strategic Planning Workshop to align staff programs, projects, and activities, with organizational directions.
6.3 Conduct at least one training or continuing education opportunity, and sustain ongoing dialogue to update internal resources and processes that equip CFRI staff to foster a culture of respect and carry out the CSU land grant mission to increase access in forest resilience and wildfire risk reduction collaborative adaptive management.	In progress.