SOUTHERN ROCKIES
FIRE SCIENCE
NETWORK

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Fort Collins, CO 80523
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December 20, 2022

Gloria Edwards
Director, Southern Rockies Fire Science Network

Joint Fire Science Program
3833 S. Development Avenue
Boise, Idaho 83705

RE: Letter of Support for JFSP FY22 FON Task Statement 23-2-01: Using landscape features, plot measurements, and remote sensing data to improve predictions of fuels treatment longevity in the Colorado Front Range

To whom it may concern:

Southern Rockies Fire Science Network (SRFSN) offers support for the JFSP FY22 grant proposal, "*Using landscape features, plot measurements, and remote sensing data to improve predictions of fuels treatment longevity in the Colorado Front Range*" submitted by Dr. David Barnard of the USDA Agriculture Research Service. SRFSN is one of the 15 fire science exchange networks under the Joint Fire Science Program. Our mission is to facilitate, and be a catalyst for, the exchange of wildfire science and knowledge to address knowledge needs throughout the Southern Rockies region.

Existing research and understanding of wildland fire behavior in grass/shrub fuels under current climate conditions is underrepresented. The proposed research project addresses three research needs in the 2023 JFSP funding opportunity: *"Improved understanding of vegetation change and fuel accumulation for different fuel types", "Improved understanding of the longevity of fuel treatment effectiveness and long-term maintenance needs",* and *"Incorporation of additional collected data into existing models and decision support tools that predict ecosystem change over time under different climate change scenarios".* The breadth of the data to be incorporated into future climate models produced by this potential research is critical in informing and improving wildfire planning and response for grassland/intermix fires on the Colorado Front Range, the Southern Rockies region, and beyond.

If this project is funded, SRFSN commits to supporting the knowledge exchange and dissemination of research results, events, and training materials through network social media, facilitating meetings, and online and in-person presentations.

Sincerely,

Gloria J. Edwards

Gloria J. Edwards
Southern Rockies Fire Science Network

Larimer Conservation District
2150 Centre Ave, Bldg. A, Suite 116, Fort Collins, CO 80526

December 7th, 2022
Dr. David Barnard
USDA-ARS, Water Management and Systems Research Unit
2150 Centre Ave, Building D
Fort Collins, CO 80526

Dear Dr. Barnard,

This letter is to express our support of the grant proposal from the USDA Agricultural Research Service to JFSP, "Using landscape features, plot measurements, and remote sensing data to improve predictions of fuels treatment longevity in the Colorado Front Range." At the operations level, there is a significant unknown with regards to the longevity of fuels treatments and how various factors such as treatment type, climate variability, and landscape features may affect post-treatment fuels accumulation future fire behavior. By addressing these questions across the broad set of target sites proposed in this research, scientists at the USDA-ARS will improve understanding of these dynamics and improve planning and execution of fuels treatments within our Conservation District and across the Colorado Front Range.

The Larimer Conservation District (LCD) is engaged in implementing watershed and forest restoration and conservation practices, including fuels treatments, with the goals to reduce wildfire risk, improve ecosystem resilience and function, and improve wildlife habitat. Our forest treatments aim to incentivize private landowners to restore their forests to a state where they may be more sustainable and functional within a historic wildfire regime. LCD actively engages with private landowners to organize and implement restoration projects in Larimer County, Colorado. By including multiple ownerships in our treatments, we address landscape-scale resource concerns in the upper Cache La Poudre and Big Thompson watersheds. The relationships we have forged with our clients over the course of planning, implementing, and monitoring our projects are such that we feel the proposed outcomes of this research would be greatly impactful.

Sincerely,

Gretchen Reuning, M.S.
Natural Resources Program Director
Larimer Conservation District
Fort Collins, CO 80526

Longmont and Boulder Valley Conservation Districts

December 8, 2022

Dr. David Barnard
USDA-ARS
Fort Collins, CO

Dear Dr. Barnard,

As the District Manager for the Boulder Valley & Longmont Conservation District, I am pleased to support the USDA ARS project proposal "Using landscape features, plot measurements, and remote sensing data to improve predictions of fuels treatment longevity in the Colorado Front Range." Fuels treatments represent a substantial portion of the workload for BVLCD and the longevity of these treatments represent an unknown that challenges long-term planning of treatments and an uncertainty as to whether re-treatments may need to be considered and planned for in the future. I believe the research proposed by the ARS would greatly benefit our Conservation Districts' operations and customer interactions by improving understanding of fuels treatment longevity and the ability to predict potential retreatment needs based on landscape characteristics and climate variability.

BVLCD has a long history of working with agricultural landowners to implement conservation practices. More recently, BVLCD has grown to include a forestry program. Our forestry program works with private landowners to implement forest restoration and fire mitigation projects in Boulder County watersheds. BVLCD understands the connection between a healthy watershed and clean water downstream for municipalities and agricultural irrigation water. This proposal addresses a common question from our landowner customers – "How long will this expensive treatment last?" The USDA ARS project will undoubtedly add to the scientific messaging we share with landowners and help to increase the pace and scale of our current cross-boundary forest restoration and wildfire mitigation projects.

Sincerely,

Vanessa McCracken

Vanessa McCracken
District Manager
Boulder Valley & Longmont Conservation Districts

December 19th, 2022

Dr. David Barnard
USDA-ARS
Fort Collins, CO 80526

Dear Dr. Barnard,

This letter is to expresses support from Northern Colorado Fireshed Cooperative (NCFC) for the grant proposal "Using landscape features, plot measurements, and remote sensing data to improve predictions of fuels treatment longevity in the Colorado Front Range," by Dr.'s David Barnard, Adam Mahood, Allison Rhea, Scott Ritter, and Camille Stevens-Rumann.

Fuels treatments are an essential component of forest management and to reduce fire risk and severity across northern Colorado. However, we are challenged with understanding how long treatments will last and if or when retreatments may be necessary. The work planned in this proposal would be beneficial to NCFC partners, the land they manage, and also to private landowners engaged in fuels reduction on their properties. In addition to our support in the form of this letter, NCFC would plan to include time in quarterly and committee meetings for Dr. Barnard and his co-Investigators to discuss their project planning and results so that our members may provide feedback to ensure research relevance to end-user needs.

The Northern Colorado Fireshed Collaborative (NCFC) spans the Front Range from the Wyoming border through Clear Creek County. The Northern Colorado Fireshed Collaborative (NCFC) operates as an umbrella for various entities working on managing wildfire risk to collaboratively identify, build support for, and implement these actions in strategic priority areas. The intent is for the NCFC to augment and elevate – not replace – the work of governmental and nongovernmental organizations and collaborative groups. NCFC functions as a 'force multiplier' to maximize the impact of local-level entities. Our mission is to create resilient landscapes by facilitating an increase in the pace and scale of not only mechanical fuel reduction methods but also prescribed fires and strategically managed wildland fires across jurisdictional boundaries.

One way we achieve this mission is by increasing our understanding of active wildland fire risk management activities at the landscape scale. This research will greatly support partners in the Fireshed to plan treatments more strategically and members are looking forward to engaging in the process. There has been spatial analysis performed across the Fireshed, but no information exists relating to the impacts of climate change on fuel treatment projects. It is imperative that we have this information to improve our collective work.

Sincerely,

Corrina Marshall

Corrina Marshall
Coordinator
Northern Colorado Fireshed Collaborative