

PROJECTS ISSUE



Working alongside Forest Service staff, The Nature Conservancy crews gain valuable experience and help the forests create lasting impacts on the landscape. (USDA Forest Service photo by James Pilsmaier)

RMRI in the Upper Arkansas landscape

Events will be held in Salida Sept. 23-24 and includes a dinner and field trips.

A message from Cindy Williams, Co-Chair Envision Chaffee County



We are excited for the next in-person RMRI partners and leadership team meeting in Chaffee County, CO on Sept. 23-24, 2024. Since RMRI's inception in 2019, and in the face of the covid global pandemic, we have met in RMRI landscapes in the Southwest and in the Upper South Platte landscapes. Now we turn to the Upper Arkansas landscape.

Thank you to all that RSVPed. We are full and lodging is booked. But this serves as a reminder: This will be an opportunity to experience how a community works together to support their landscapes, and for leaders like you to consider how to empower and fund similar results across Colorado. This invite-only event is an opportunity to be part of a conversation that shapes Colorado's future!

Envision Chaffee County and the community are advancing integrated programs to manage fast-paced growth in outdoor recreation, support ranchers in their businesses and in protecting their working lands, and enhance forest health to address wildfire threat and improve wildlife habitat. Results of this collaborative work protect what people love about living and visiting here.

Envision is an original member of the Colorado Parks and Wildlife Regional Partnerships Initiative (RPI) and an RMRI

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RMRI-Upper South Platte

How a new portfolio of agreements focuses on implementing the Wildfire Crisis Strategy on the landscape

By MaryGrace Bedwell, U.S. Forest Service

Partners have been, and remain, an essential part of implementing the Wildfire Crisis Strategy. Working collaboratively with local and national partners, forests across the nation have been able to increase the pace and scale of wildfire risk reduction work in the communities where it's needed most.

This winter, the WCS Colorado Front Range Landscape worked with The Nature Conservancy to reduce fuels

accumulated from thinning operations on the Arapaho and Roosevelt National Forests and Pawnee National Grassland and Pike-San Isabel National Forests & Cimarron and Comanche National Grasslands. Over the course of 81 days, several TNC modules

worked alongside Forest Service fire personnel to burn **16,500 slash piles**, treating a substantial **778 acres**.

Slash piles are strategically placed stacks of wood left behind after thinning operations. They are only burned when weather conditions allow for adequate snow

cover and good smoke dispersal. Because of weather variability, crews needed to be adaptable during their time on the Front Range. When burning was not feasible on the Pike-San Isabel National

Forests & Cimarron and Comanche National Grasslands, crews assisted in the construction of hand line around two upcoming broadcast burn units. The Nature Conservancy was instrumental in the success of approximately two miles of hand line

“ It is a great asset to the forest when self-driven resources come in. ”

Jarred Gordon, task force leader

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constructed around the 70-acre and 400-acre units.

“The Nature Conservancy’s prescribed fire module members provided help at a crucial time during the winter burn window, which aided our success this pile burning season. It is a great asset to the forest when self-driven resources come in, and TNC module members demonstrated that time and time again,” said Jarred Gordon, task force leader for the PSICC’s Harris Park prescribed pile burn project.

This adaptability is indicative of the long-term benefits of this partnership on the landscape. In addition to reducing hazardous fuels in preparation for this fire season, crews are also developing skillsets that contribute to future mitigation, fuels reduction and firefighting capacity. By working with crews from outside the Forest Service, we can cultivate a larger national resource that is well-equipped to respond in times of need and help us treat acres to reduce risk year after year.

“It was a pleasure working with the TNC crews, who were consistently positive, inquisitive and professional. Their diligence in securing our burn piles was very much appreciated by our neighbors and partners and we look forward to being able to work with them again in the future,” said Nate Hallam, assistant fire management officer for the South Zone of the Arapaho and Roosevelt National Forests and Pawnee National Grassland.



Slash piles burned at the Harris Park RX site, Pike National Forest. (USDA Forest Service photo by James Pilsmaker)

This work was completed as a part of a new portfolio of agreements between the Forest Service and TNC, executed in summer/fall 2023. This national-level partnership, funded primarily by the Inflation Reduction Act, focuses on implementing the Wildfire Crisis Strategy and reducing fuels, restoring forests and mitigating impacts of climate change across the country. Through a keystone investment with TNC, national forests across the country can develop relationships with TNC and request personnel to support prescribed fire and fuels reduction activities, augmenting our capacity to implement this priority work.

“The Nature Conservancy’s longstanding working relationships with the ARP and PSICC set the stage to leverage these historic federal investments and turn opportunity into action. While TNC and the USFS have been collaborating for years to plan and implement projects across the two forests, the keystone investment has significantly ramped up our collective ability to accelerate use of beneficial fire in the WCS Colorado Front Range Landscape,” said

Parker Titus, fire program manager for The Nature Conservancy in Colorado.

The Colorado Front Range Landscape encompasses 3.6 million acres, 80 at-risk communities, 156 watersheds, and nine miles of 345+ volts transmission lines across two national forests. In the first two years of Wildfire Crisis Strategy implementation, the Arapaho and Roosevelt National Forests and Pawnee National Grassland and PSICC have collectively treated over 30,000 acres alongside many partners and communities. Looking to the future, we look forward to continuing work with these partners that are critical to the success of Wildfire Crisis Strategy implementation in the Rocky Mountain Region. For more on the landscape work, visit

www.fs.usda.gov/goto/R2WildfireCrisisStrategy. ■

...RMRI meeting

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A FUTURE BUILT ON COMMON GROUND

priority landscape. Supporting partners are Great Outdoors Colorado (GOCO), the Colorado Department of Natural Resources, National Forest Foundation and RMRI.

Colorado communities now more than ever require collaborative action to address conservation, recreation and wildfire resilience. Chaffee County provides a timely example of such action at a critical point as the state develops the Colorado Outdoors Strategy to support similar results statewide. Event activities are designed to share successful initiatives and explore state program connections and collaborative funding solutions to support parallel statewide results.

Events will be held in Salida and include a Sept. 23 dinner meeting and Sept. 24 Field Trips with a facilitated lunch focused on funding the future. The agenda incorporates a special session for Regional Partnership and RMRI leaders on the morning of Sept 23.

Don’t miss this exciting opportunity to see firsthand how local and regional efforts make significant impacts and leave with new insights to help set strategic direction for Colorado’s great outdoors.

Envision Chaffee County board members, staff and partners look forward to welcoming you to our special slice of Colorado! Learn more about Envision’s work in this YouTube video:

<https://bit.ly/3xNYkn7>. ■



Project prioritization in the Upper Arkansas

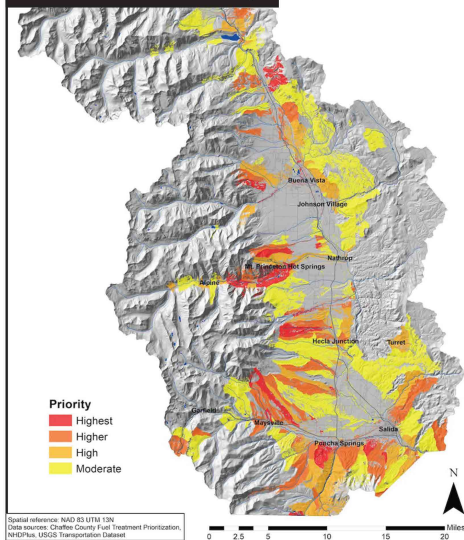
An interview with Brett Wolk, Assistant Director at Colorado Forest Restoration Institute (CFRI)

By Kim Marquis, Envision Chaffee County and Nathan Van Schaik, U.S. Forest Service

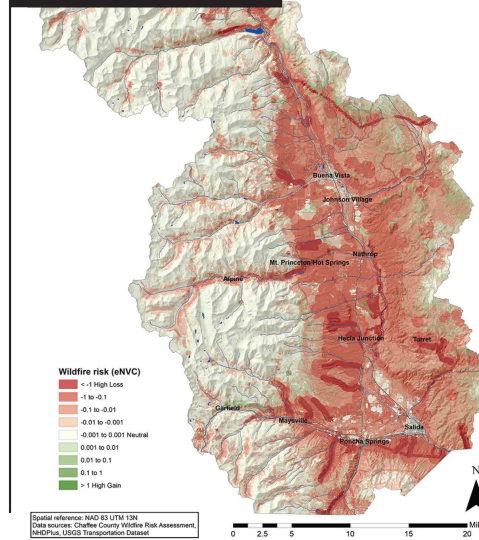


Chaffee County Next Generation Community Wildfire Protection Plan Community Summary: <https://bit.ly/45LwUT>

Fuel Treatment Priority



Composite Wildfire Risk



A guide to community-driven, science-based land restoration

Colorado’s Chaffee County serves as a model for how people from all walks of life can come to agreement on shared values and priorities. The Chaffee County wildfire plan—molded by public input and put into action by the Envision Forest Health Council—is primarily based on Treatment Priority Areas.

These Treatment Priority Areas, or TPAs, show where using prescribed fire and thinning trees can most effectively reduce the risk of wildfire to the community assets that residents deemed the most important, and enhance benefits of fire to the community resources. In areas showing high risk where vegetation management is not the highest bang for the buck mitigation tool, the Forest Health Council works to devise other complimentary strategies for protecting specific values and geographies.

The plan was created by first engaging the community through a survey, which showed strong support for forest treatment (84% said they have “no concern” about land

management activities such as thinning trees).

The community also was asked to prioritize what they most want protected from wildfire and post-fire flooding. The seven community assets, in order, are firefighter lives, human life, drinking water, infrastructure, homes, wildlife, Arkansas River recreation, scenic views and trail systems.

With this input, the Colorado Forest Restoration Institute (CFRI) at Colorado State University quantified wildfire’s risk to the priorities using GIS modeling technology. This process was called Risk Assessment Decision Support (RADS). Through RADS, they mapped locations of power lines, evacuation routes, buildings, cell towers, water supply and more, and created maps showing where fire is most likely to happen and how intense it would be if it occurs. In short, CFRI explored how shared values and priorities interacted with fire modeling.

All of these factors combine to produce the Composite Wildfire Risk map (top right), showing where the community’s valued assets are at the highest risk. The cost of

doing vegetation treatments, combined with their likely effectiveness at changing wildfire behavior, is factored into the final map (top left) to identify where forest management can do the most to lower risk for the least amount of money — or where we can get the best “bang for the buck.” Treatment options include thinning trees, prescribed fire, thinning to clean up slash and a patch-clearing method used in the piñon-juniper forest called mastication.

The professionals from different agencies on the Forest Health Council are using the map to complete strategic and connected projects on the right lands. Projects in Treatment Priority Areas include Methodist Front, Riverside, Railroad Bridge, Rodeo Road, Poncha Pass and all of investments in private property action under Chaffee Treats and Chaffee Chips.

What’s more, those community members whose land is in a colored-in area are a part of the solution. Having a clear picture of what everyone needs to do and a timeframe set to do it — and having a trusted guide to lead them toward that goal (the Forest Health Council) — makes sense of a scary and complicated situation for busy people. They can share with their neighbors the simplest part of this story: *Our properties are in the orange and we need to do some treatments to contribute to the long-term goal.* It also removes push-back, such as, *why are they treating over there and not never here?*

Living with smoke and prescribed burning can be a bitter pill to swallow. But because the public knows that it is focused on the right acres, they also know that the outcome will be worthwhile. And they know that if they decide to act on their private property, they are contributing to an important shared story that has a

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positive outcome for everyone. By implementing the elements of the CWPP, and focusing collaboratively on the Treatment Priority Areas, Chaffee County is using a disciplined approach to treat the right acres and make progress toward a fire-ready future.

Brett Wolk Interview

With Nathan Van Schaik



Brett Wolk is Assistant Director at Colorado Forest Restoration Institute (CFRI) and his colleague Ben Gannon was a spatial analyst with CFRI (Ben has since departed CFRI for another position). Members of the Envision Forest Health Council enlisted the help of Brett and Ben after members had seen their work on watershed modeling and return on investment. For Brett and Ben, they had never applied their work beyond watershed protection to a multi-resource assessment, but were looking for an opportunity to put their research to work for more complex interests. They partnered throughout the process and Brett interfaced with the Chaffee County community leading the collaborative process development and engagement, while Ben led all of the mapping and modeling.

How does the Risk Assessment Decision Support (RADS) framework help foster collaboration?

BW: RADS provides a tangible framework for people to talk about the issues. It allows them to see where they can collaborate, where it makes sense to not collaborate and maybe assign work to an organization with a specialty. But RADS really provides this common operating picture for everyone to see how they are contributing towards this larger collaborative effort. RADS takes conceptual conversations and puts a map and data behind it. For example, we can talk about a particular hillside and ask, *what should we do? What are the values at risk?* RADS really connects the values at risk to the management decisions. And it does that in a very explicit spatial way.

RADS also brings in the economics of a decision. When it comes to return on investment, RADS highlights places where it doesn't make sense to do forest management. And I think we tend to narrowly focus

on where the priorities are. But I think the biggest impact of our work is actually helping people determine where it *doesn't* make sense to invest in forest and fire mitigation. Because that's the hardest thing. It's easy for everyone to say yes, okay, we should do a project here—there's always a justification for doing some kind of forest management. The hard part is the prioritization and saying no.

RADS connects social conversations and people's values to the biophysical processes of fire and forest ecology. That helps prioritize where it does and doesn't make sense—and that gives people justification and reason and logic to make informed decisions. Community values drive the process, but the forest and fire science provides sideboards on personal preferences and helps keep the planning team and community on a common path.



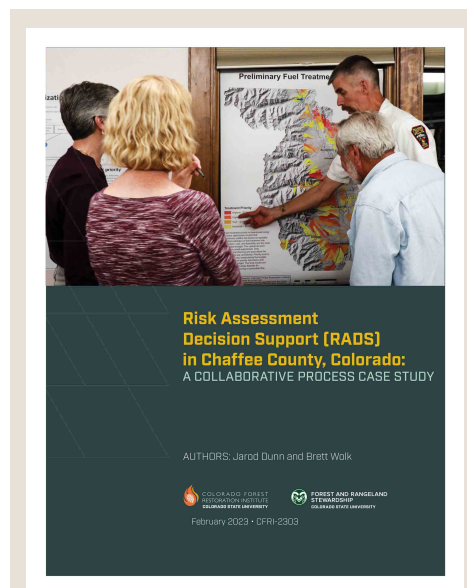
Envision Chaffee County photo

The Chaffee County Next Generation CWPP was developed by the community. 1,035 citizens engaged in the wildfire survey, and hundreds in community meetings. Top local and regional leaders from critical organizations provided over 1,500 hours – or 40 work weeks – of planning time and expertise to develop the plan.

That's because a model is a depiction of reality. And whether it's a fire behavior model or a model on what's the optimal number of kids to have in a school, they're all models of reality. But they're not reality. And so there are other factors that come into making decisions that can never be modeled.

You always have to interpret models and see how they can help *inform* my decision rather than *make* my decision. RADS is absolutely a decision support tool. But that makes it all the more important to ensure that the values of the community are expressed in the modeling. Because that's how it's going to support their decisions. They can see themselves in it. It's expressing their values, but then it's also interacting with the science and fire behavior modeling.

If the community feels that water or the bighorn sheep population or tourism are important, that's reflected in the model. Then, we can have conversations. And we did that at Chaffee and Lake County. So, for example, the modeling might show little fire risk in a specific area. *Can you tell me what's going on here? Think this is a place where you should be doing forest management activities? Can you explain why is this wrong or what the model is not seeing?* Sometimes local partners point out things the model is missing, but often there is learning about how fire interacts with their values that changes past perceptions. When people learn through the process, that's when they embrace the outputs and work to implement them together.



Case study details an application of CFRI's Risk Assessment and Decision Support (RADS) outcome based planning framework used during the development, revision, and implementation of Chaffee County's Community Wildfire Protection Plan (CWPP) 2020 update.

✓ Executive Summary: <https://bit.ly/3xF3jqj>

✓ Case Study: <https://bit.ly/3VEQEvz>

RADS is a model for decision support. But models don't make decisions. Do you agree? Why or why not?

BW: This is something that we at CFRI emphasize always. Another way to say that is, *all models are wrong, but some are useful.*

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What have been the most significant outcomes or early successes from implementing the Fuel Treatment Priorities so far?

BW: Marrying the local priorities with science-based modeling has helped people tell their story, and help people say, *this is the need, this is the justification, this is going to be the outcome.* With Chaffee County, there have been some real tangible results, like the amount of fundraising that the council has done and the success they've had using the 'bang for the buck' map the modeling helped tell. Fundraising has been in the tens of millions of dollars, which included a local tax in Chaffee County. That doesn't happen without community support. The maps and modeling helped justify to the community, *we're going to use your tax dollars wisely.* Getting that support from the local community in Chaffee County has been one of the biggest early successes I've seen compared to any other place we've done these kind of assessments.

Another significant outcome has been the alignment of the different organizations to work together towards common goals. That means leveraging unique talents together in the same landscapes or adjacent landscapes or just in the right places. It's been motivating to see different organizations planning not just work on this side of the fence or work on that side of the fence, but actually really saying, *okay, we're going to go figure out how to work in this one area that's marked as high priority—whether it's a community or a watershed.*

One intangible outcome has been getting people to have that common operating picture. That started developing from day one when we asked, *what are your shared values? Now let's explore how those interact with wildfire.* We put the work back on the group. Ben and I agreed to serve as the technical resource, but the community had to ultimately make all the decisions. Out of the shared values and priorities developed a common operating picture and has since persisted.

One last success I've witnessed is how perceptions have evolved throughout the process—from the community to professional managers to politicians. People in Chaffee County are thinking about fire as not always bad. Fire can actually be a benefit to our landscapes and our communities. So what's the result of changing attitudes? For one, the

county is now accomplishing several thousands of acres of prescribed burning. Professional agencies can be a barrier to prescribed burning, but there's been a lot more support from both the agencies and communities.

Given all that you know as a CFRI scientist combined with all your experiences, what's something you want other communities to know who are interested in following Chaffee County's footsteps?

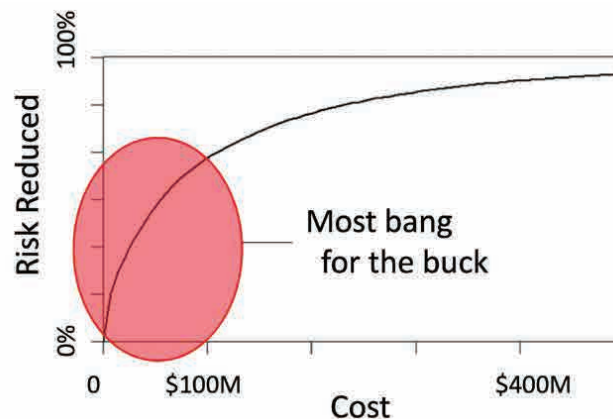
BW: What's been accomplished in Chaffee County is replicable in marrying local objectives with science-based modeling. But exactly which model and how it comes together, there's a lot of flexibility. The technical modeling is important in that it moves opinions and desires to a common operating picture and it grounds it in data. But exactly which model you use is much less important than the social process of going through the planning together.

Sure, we provide technical modeling and code that is running behind the scenes. But that is much less important and impactful than having that commitment and desire for a group to learn together. And for that to happen, people have to be willing to share some of their decision space. If you bring more people in, it may feel like you're giving up decision space. But at the end of the day, you're gaining a whole lot more. If you have a larger community of people supporting your work and you have this common operating picture, I think to come back to say well, *here's how my individual agency is contributing to this larger good, that's a much more powerful statement than just saying, here's how my agency's work is contributing to our agency's goals and objectives.* ■



A recently published meta-analysis on the return on investments in restoration and fuel treatments in frequent-fire forests of the American West outlines how every dollar invested in forest restoration can provide up to **\$7** of return in benefits, showcasing a **600%** return on investment in the most valuable and at-risk watersheds.

Importantly, the research found benefits of forest management and fuels reduction vary widely and not every project yields these same returns. This highlights the need to prioritize management where it aligns with community values and ecological processes to realize these benefits. The CFRI RADS cost-benefit collaborative planning model applied with Chaffee and Lake Counties is a shining example of ensuring forest and fire investments are effective to maximize the bang for the buck. Read the analysis at <https://bit.ly/3RGPtU7>.



Cost benefit curve for implementing vegetation treatments that informs the Bang for the Buck in the Chaffee County Community Wildfire Protection Plan.



An Unmanned Aerial System (drone) is loaded with plastic spheres that will be dropped into unburned fuels for ignitions at the Spruce Creek fire. (Inciweb photo)

Southwest

How utilizing fire as a management tool is crucial for fostering healthy and resilient forests

By Hannah McKinney, National Wild Turkey Federation

On May 14, a lightning strike sparked the Spruce Creek Fire 11 miles Northeast of Dolores, CO on Haycamp Mesa in the San Juan National Forest. This fire presented an uncommon opportunity for the Dolores Ranger District to employ indirect tactics for forest restoration and enhance community safety.

The Spruce Creek fire ignited within a network of forest system roads that fire managers identified as ideal containment lines. Thanks to favorable weather and fuel conditions, firefighters were able to burn out the interior of the road system, guiding the fire to these lines rather than building new ones at the fire's edge.

The 5,699-acre fire burned with low-to-moderate intensity in heavy timber, Gambel oak and deep duff (a dense layer of partially decomposed pine needles). Removing this highly flammable vegetation is a step toward protecting local communities and infrastructure from the risk of future high-intensity wildfires. Additionally, the restorative nature of wildfire in this fire-adapted ecosystem is a secondary

benefit.

"We [used] this natural ignition to maximize the positive effects from fire and minimize the negative effects of catastrophic fire," said Nick Mustoe, District Ranger for the Dolores Ranger District. "This means making wise choices about our fire response in ways that reduce the long-term risks to our watersheds and communities and allow fire to play the role it has in our forests for millennia."

Fire is an intrinsic component of natural ecosystems, and the Rocky Mountain Restoration Initiative endeavors to foster forests that are resilient, healthy and prepared to receive fire. Currently, the RMRI encompasses three focal landscapes across Colorado: Upper South Platte, Upper Arkansas and Southwest Colorado. In Southwest Colorado alone, which includes Dolores and the San Juan National Forest, RMRI partners have restored 83,124 acres of public and private land since 2020.

Utilizing fire as a management tool is crucial for fostering healthy and resilient forests. When applied at the appropriate

intensity and location, fire can be used to reduce wildfire risk to communities—a primary focus of the San Juan National Forest. Fire often also offers numerous benefits to both the forest ecosystem and the wildlife species reliant on it. Firefighters and forest managers harnessed this natural ignition to mitigate the potential for catastrophic wildfires in the future. By targeting hazardous fuels under favorable conditions, they diminished long-term risks to communities. This strategic approach seeks to foster healthier, more resilient forests while concurrently minimizing risks to communities.

Considerable effort and funding are invested in forests across the West, getting forests ready to receive fire, which is inevitable and natural on the landscape. In Southwest Colorado, the diligent work undertaken by RMRI partners over the past few years has been instrumental in preparing the landscape and our communities for fire. Good project work on private, state, tribal or federal land creates forests that are resilient to disturbances, like fire, and is critical for protecting communities. ■

Editorial note: This article was originally published at www.nwtf.org.



A member of the Roosevelt Interagency Hotshot Crew on the Spruce Creek Fire on May 19, 2024. The crew, from the Arapahoe NF in Colorado, helped secure the a portion of the perimeter by "burning out" along a fence line. (Photo by Lorena Williams, San Juan National Forest)