

Rocky Mountain Restoration Initiative (RMRI)
December 1, 2021, 1:00 PM to 4:00 PM
Virtual Meeting
Meeting Summary - FINAL

ATTENDANCE

Participants: Rob Addington, Samantha Albert, Brian Banks, Alan Bittner, Angela Boag, Jacque Buchanan, Christina Burri, Kara Chadwick, Patt Dorsey, Elizabeth Dowling, Ashley Downing, Cindy Dozier, Mark Finney, Allen Gallamore, Kristin Garrison, Aaron Green, Vaughn Jones, Claire Kendall, Damon Lange, Jason Lawhon, Paige Lewis, Mark Loveall, Frank McCormick, Tim Macklin, Danny Margoles, Susan Matthews, Tim Mauck, Sarah McCaffrey, Kate McIntire, Pat Mercer, Emily Olsen, Kyle O'Neill, Molly Pitts, Mike Preston, Kelle Reynolds, Lauren Ris, Ellen Roberts, Kelly Romero-Heaney, Shannon Schaller, Scott Segerstrom, Travis Smith, Tom Spezze, Chris Sukach, Diana Trujillo, Tara Umphries, Nathan Van Schaik, Chris West, Cindy Williams, Scott Woods, Chris Yuan-Farrell

Facilitation: Heather Bergman and Samuel Wallace

OPENING REMARKS

Patt Dorsey, National Wild Turkey Federation (NWTf), and Jacque Buchanan, US Forest Service (USFS), provided opening remarks to the meeting. Their comments are summarized below.

- The NWTf has recently hired Kate McIntire to serve as the NWTf RMRI coordinator. The NWTf has also hired a new director of development Elizabeth Dowling, to raise funding for Colorado programs and initiatives, including RMRI.
- Partners came together in RMRI to recognize how great the need was. The infrastructure bill provides a significant opportunity to make progress on the forest-related challenges Colorado faces.

PARTNER UPDATES

RMRI Partners provided updates. Their comments are summarized below.

Colorado State Forest Service (CSFS)

The Colorado State Forest Service has hired Matthew McCombs to serve as the new Colorado State Forester. He will come on as the state forester in January.

Colorado Department of Natural Resources (DNR)

- The Colorado Legislature Joint Budget Committee will be meeting the week of December 6 to discuss their 2022 priorities.
- DNR has rolled out the Colorado Strategic Wildfire Action Program (COSWAP) created by Colorado Senate Bill 258. The program expands opportunities for managers to work with the Colorado Youth Corps Association (CYCA) and the Department of Corrections State Wildland Inmate Fire Team (SWIFT) crews. It will also provide funding for fuel treatment projects. The program has identified strategic focus areas: the three RMRI priority landscapes and six counties.
- DNR has launched the new Colorado Forest Health Council. Colorado Forest Health Council meetings will be open and virtual for the time being. The Colorado Forest Health Council will provide guidance to the governor and legislators to help address forest health issues.
- Over the past two years, state partners have worked with the USFS Region 2 to develop shared goals under the Shared Stewardship Memorandum of Understanding (MOU). They

have pulled together key planning staff and will release their plan in the spring. The plan will outline how those partners will work together collaboratively over the next ten years.

Colorado Water Conservation Board (CWCB)

- CWCB has distributed over \$22 million through their Watershed Restoration Program for post-fire recovery projects in the Cameron Peak, Grizzly Peak, and Calwood Fire burn scars.
- CWCB is working with partners to update the Colorado Water Plan. The basin implementation plans (BIPs) were out for public review, and the commenting period closed on November 15. CWCB is sorting through the feedback they received on the BIPs.
- CWCB will be hosting many workshops in the summer of 2022 focused on forest and watershed health.

CYCA

- CYCA is allocating more resources to workforce development in 2022. CYCA will be hiring new corps members to implement more work in 2022.
- CYCA developed *A How-To Guide for Pursuing a Career in Natural Resources*, which is available for download at [this link](#).

Colorado Outdoor Recreation Industry Office

The US Economic Development Administration (EDA) awarded \$9 million to Colorado to support outdoor and recreation tourism. If partners have projects that fit this category, they should reach out to Samantha Albert for more information.

NWTF

- At the state level, NWTF continues to work with policymakers to ensure state legislation mentions the importance of work occurring in the wildland-urban interface and upstream areas.
- NWTF is participating in the USFS's Wildfire Risk Reduction Team at the national level, which is determining how to roll out the bipartisan infrastructure bill. As more funding is allocated for forest management projects, it is important to consider how and where it will be applied.
- NWTF staff will be meeting with Chief Moore of the USFS to talk about Shared Stewardship at the national level and RMRI as an example of Shared Stewardship.

The Nature Conservancy (TNC)

TNC has managed funding under the National Cohesive Strategy Program for the past six years. The National Cohesive Wildland Fire Management Strategy emphasizes three goals: resilient landscapes, fire-adapted communities, and safe and effective wildfire response. Through the funding granted by the National Cohesive Strategy Program, TNC has implemented projects with Jefferson Conservation District, Denver Mountain Parks, Colorado State Forest Service, and the Coalition for the Upper South Platte within the Upper South Platte geography. Many great outcomes came from the funding, including mechanical thinning projects, home assessments, and treatment monitoring.

WORKFORCE CAPACITY SUBCOMMITTEE ACCOMPLISHMENT UPDATE

Molly Pitts, CTIA, gave an update on the accomplishments of the RMRI Workforce Capacity Subcommittee in 2021 and their plans for 2022. Her comments are summarized below.

- One issue with getting to the pace and scale needed on the landscape is that there are not enough people to do the needed work in the forests, mills, and trucks. The Workforce

Capacity Subcommittee is trying to address this issue by starting new programs and leveraging existing resources.

- In 2021, the Workforce Capacity Subcommittee hosted a webinar with speakers from existing and upcoming forest equipment trainings in Shasta College, Northern Maine Community College (NMCC), and Northern Arizona University (NAU). The purpose of the webinar was to think about how a training program could be developed in Colorado.
 - Shasta College has a one-year program where students operate real equipment. The State of California provided a lot of funding and investment into the equipment for that program. Shasta College has operated the program for two years.
 - NMCC hosts a 12-week summer program funded by the forest industry in Maine with some support from the state government. The program allows students to gain experience running equipment and basic forestry skills, such as map reading, equipment maintenance, and tree identification. That program is completely subsidized, so students do not have to pay tuition. The program hosts 12 to 15 students at a time.
 - NAU received an EDA grant to create a workforce training program to transition coal workers to forestry, including coal workers from the Navajo Nation.
- In Colorado, Front Range Community College has a basic forestry degree. Many graduates from that program transfer to four-year colleges or go to work.
- In Colorado, Trinidad State Junior College has the state's only trail-building curriculum. Students are working on building trails at the new Fishers Peak State Park through that program.
- The Subcommittee has been working with the CYCA to identify internship opportunities. CYCA is working on a white paper to identify the possibility of developing private industry internships through CYCA.
- The Subcommittee invited speakers to learn about the Job Corps, the Colorado Apprenticeship Program, Skill Advance Colorado, and EDA grants.
- Subcommittee co-chairs Molly Pitts and Tim Reader, CSFS, attended a Future Farmers of America (FFA) career convention to talk to students about forestry. They also talked at the Western Governors' Association and Economic Development Council of Colorado conference.
- The Subcommittee has explored the option of buying a Ponsse Simulator. A Ponsse Simulator allows students to operate forestry equipment in a virtual world. Front Range Community College has one that they use one semester per year, so there may be an opportunity to share that simulator with other community colleges.
- In 2022, the Subcommittee plans to take the Ponsse Simulator on a roadshow. They are also exploring potential grant opportunities to help develop a training program; although, they are not quite ready to apply at this time.
- As the Workforce Capacity Subcommittee moves into 2022, the type of support RMRI partners could provide includes:
 - Having more members join and participate in Subcommittee meetings
 - Helping with grant writing if the Subcommittee decides to pursue funding
 - Organizing a roadshow for the Ponsse Simulator

Partner Questions

Meeting participants asked questions about the work of the Workforce Capacity Subcommittee. Questions are in italics, with corresponding responses in plain text.

What type of support does the Subcommittee need to organize a roadshow for the Ponsse Simulator? Subcommittee members are talking with Pueblo Community College – Bayfield about standing up a forestry equipment training program. They are not ready to develop a full program, but there is an opportunity to bring the simulator to the college in a test trial. The equipment is around \$120,000, so finding opportunities to share it is more cost-effective than buying it.

BIOMASS UTILIZATION SUBCOMMITTEE ACCOMPLISHMENT UPDATE

Molly Pitts, CTIA, gave an update on the accomplishments of the RMRI Biomass Utilization Subcommittee in 2021 and their plans for 2022. Her comments are summarized below.

- In 2021, the Biomass Utilization Subcommittee developed a biomass factsheet to establish consensus on definitions and benefits of biomass utilization.
- In 2021, the Colorado Legislature passed a bill to have the CSFS develop a Statewide Biomass Assessment. The CSFS is currently hiring someone to put together the plan. The Subcommittee brought in a speaker to talk about the CSFS Statewide Biomass Assessment.
- Subcommittee members were involved with increasing the emphasis on climate/carbon benefits of forest management and biomass utilization through carbon sequestration. Many subcommittee members were also engaged with state policy and legislative efforts related to biomass.
- In 2022, the Subcommittee is interested in exploring the idea to establish a Bioeconomy Development Opportunity (BDO) Zones to encourage the use of biomass in different ways. BDO Zones can help bring in funding to finance facility infrastructure. The Biomass Utilization Subcommittee is also looking to support applicants for the Wood Innovations Grant (due in the spring of 2022) and increase/improve access to the US Department of Agriculture (USDA), CSFS, and other state and general stimulus resources.
- In 2022, the Subcommittee is interested in hosting a biomass utilization conference. At the conference, it would be interesting to explore the option to use different products in Colorado, such as biochar.
- Subcommittee members will support the CSFS Statewide Biomass Assessment development by reviewing and providing input throughout the process.
- Upcoming milestones Subcommittee include:
 - Wood Innovations Grant Awards - Spring 2022
 - BDO Risk Analysis - End of 2022
 - Draft Biomass Assessment - End of 2022
 - Biomass Conference in 2022
- As the Biomass Utilization Subcommittee moves into 2022, the type of support RMRI partners could provide includes:
 - Information on project area biomass removals (quantity, quality, and cost) for the CSFS Statewide Biomass Assessment
 - Establishing communications with contractors and businesses on project area treatments
 - Infrastructure investment where there are industry gaps on the landscape

Partner Questions

Meeting participants asked questions about the work of the Biomass Utilization Subcommittee. Questions are in italics, with corresponding responses in plain text.

How is the Biomass Utilization Subcommittee reaching out to landscapes to identify funding opportunities and existing programs? For example, new industries are getting stood up in Southwest Colorado, and they say they could use support.

Southwest partners have helped connect businesses in Southwest Colorado interested in the Wood Innovations Grant to members of the Subcommittee. If interested partners in the landscapes want to apply for Wood Innovations Grant funding, they should contact Molly Pitts.

COMMUNICATIONS SUBCOMMITTEE ACCOMPLISHMENT UPDATE

Nathan Van Schaik, USFS, and Kate McIntire, NWTF, gave an update on the accomplishments of the RMRI Communications Subcommittee in 2021 and their plans for 2022. Their comments are summarized below.

- Since the inception of RMRI, partners have received six "The Source" quarterly newsletters.
- Over the past 11 months, the RMRI Communications Subcommittee has:
 - Published seven "RMRI Monthly Update" newsletters
 - Grown their Facebook following by 86%, with 296 posts that reached 3,893 people
 - Grown their Twitter following by 37%, with 448 tweets and 135,410 impressions
- Since May of 2021, RMRI partners have been in 26+ news publications.
- Upcoming milestones for the Subcommittee include enhancing RMRI communication tools, like the website, and developing boilerplate presentations that can be tailored to partners' needs to use at conferences. The Subcommittee is also interested in updating the RMRI messaging based on the brand.
- In 2022, the Communications Subcommittee wants to increase two-way communication to elevate RMRI landscape partners by showing what they are accomplishing on the ground. They also want to increase website views and their social media reach by 100%. Lastly, the Communications Subcommittee is re-tooling itself by recruiting more partners and finding more contributors.
- The Communications Subcommittee is undergoing a compass check to determine what they have accomplished and take stock of their available tools. They are thinking about how to tell the RMRI story and who the audience is for those stories. They also want to define where they need to go and how to get there.

SOCIAL LICENSE SUBCOMMITTEE ACCOMPLISHMENT UPDATE

Patt Dorsey, NWTF, gave an update on the accomplishments of the RMRI Social License Subcommittee in 2021 and their plans for 2022. Their comments are summarized below.

- In 2021, the Social License Subcommittee developed key messages around prescribed fire, active forest management, and fire-adapted communities. The language of the key messages lines up with existing resources developed by other agencies and organizations, like the USFS, CSFS, Wildfire Adapted Communities, and the Division for Fire Prevention and Control (DFPC).
- In 2021, the Social License Subcommittee built a library of resources that features success stories, communications images, and research on the cost-benefits of mitigation, fire adapted communities, and prescribed fire.
- The Social License Subcommittee is currently creating infographics to highlight the differences between treated and untreated landscapes. They are also building out strategies for how to increase social license.
- In 2022, the Social License Subcommittee wants to work with the local landscapes to tailor materials to the local level. They also want to work with the Communications Subcommittee to share success stories and integrate messaging into existing campaigns (e.g., Wildfire Awareness Month).

- The Social License Subcommittee needs support from RMRI partners in increasing outreach to the recreation community and better defining the social license needs at the local level. They also need support in designing the "untreated versus treated" infographics.

Partner Questions

Meeting participants asked questions about the work of the Social License Subcommittee. Questions are in italics, with corresponding responses in plain text.

Is the Social License Subcommittee receiving questions on the broader impacts of prescribed fire smoke relative to wildfire smoke?

The Social License Subcommittee has discussed how prescribed fire ultimately reduces the amount of smoke compared to wildfire smoke. That is part of their messaging.

SUBCOMMITTEE ACCOMPLISHMENT KEY TAKEAWAYS DISCUSSION

Meeting participants discussed the key takeaways from the accomplishment report out from the subcommittees. Their comments are summarized below.

- The subcommittees have accomplished a lot over the past two years. Participation in subcommittees is winnowing down, so partners should join subcommittees if they are interested in contributing to the work.
- It would be helpful to have a system to share materials from the subcommittees and how others use them to inspire action. It can be difficult to translate information to the field level, so a better understanding of how partners could use materials at the ground level would be helpful. One-on-one conversations with landscape partners are a good way to brainstorm how to better use the materials the subcommittees are producing.

FUEL MANAGEMENT AND FIRE BEHAVIOR PRESENTATION

Mark Finney, Rocky Mountain Research Station, presented research on the relationship between fuels management and fire behavior. His presentation is summarized below.

- Over the past century, people have altered the fire regime on the forest by extinguishing mild and moderate fires in all vegetation zones. By doing so, people have saved fuel for the worst-case weather conditions when a large fire will quickly overwhelm suppression efforts. Fuels management is the response to suppressing fire for over a century.
- Researchers have characterized how modern burning rates compare to historical burning rates.
- There are hundreds of papers on how fuel management impacts wildfire behavior. A recent paper titled *Adapting Western North American Forests to Climate Change and Wildfires: 10 Common Questions* synthesizes the results from many papers and addresses ten common questions on fuels management. The paper summarizes that:
 - The effects of fire exclusion are not overstated.
 - Forest thinning alone is not sufficient to mitigate wildfire hazards.
 - Forest thinning and prescribed burn can be effective depending on what problem managers are trying to address.
 - Active forest management should be applied in the wildland-urban interface (WUI) and beyond the WUI as buffers can modify fire behavior.
 - Wildfires on their own have severe wildfire effects, and prescribed burns and managed wildfires can burn under more moderate weather conditions.
 - Fuel treatments can mitigate burn severity.

- Managers need to know their objectives and adjust their treatments to reach their objectives. Some objectives include changing fire behavior, changing fire effects, changing large fire growth, and reducing the transmission of fire across large landscapes.
- There are multiple scales to evaluate the effectiveness of fuels management at changing fire behavior. Two scales are the stand scale and the landscape scale.
- Fire is the most effective tool for fuel treatment at the stand scale. If managers fail to follow up mechanical treatments with prescribed fire, those treatments will have a limited impact on fire behavior. Fire is necessary because it removes non-merchantable material, such as woody debris and downed logs, that other treatments do not remove. The biggest contribution to the spread of fire is surface fuels, more so than canopy fuels. Litter and dug on the ground allows fires to burn for a long time. Fire also kills young and small trees and scorches the lower limbs of larger trees.
- In 1997, a wildfire burned through the Blacks Mountain Experimental Forest in California. After the wildfire, researchers analyzed how different treatments impacted fire behavior. In areas where managers had thinned and conducted prescribed burns, the wildfire resulted in low severity burns. In areas where managers had thinned only, the wildfire resulted in high severity burns. There were dramatic differences between the thinned and previously burned areas and the areas where there was only thinning.
- The Rode-Chediski Fires combined burned over 400,000 acres. When the fire came against areas treated with prescribed burns, its behavior changed dramatically. When the fire came against areas that were cut and thinned and managed without prescribed burns, its behavior did not change significantly. Many examples demonstrate these results.
- On the landscape scale, the Cameron Peak Fire's behavior dramatically changed when encountering the High Park burn scar.
- Researchers have created wildfire simulations to understand how treatments impact fire behavior at the landscape scale. They tested four different treatment strategies: 1) no treatment, 2) parallel treatments, 3) random treatments, and 4) strategic treatments. With no treatments, the fire in the simulation grew large. The parallel treatments were very efficient at containing a fire, but they are impractical. The random treatments were inefficient at containing a fire, but it is a practical strategy to implement. The strategic treatment pattern was less efficient at containing a fire than the parallel treatments but more efficient than the random treatments. Additionally, the strategic treatments are more practical to implement than the parallel treatments.
- One takeaway from the wildfire simulations is that random treatments do not affect fire behavior as effectively at the landscape level. Managers can have a bigger effect on the landscape by strategically treating the forest.

SOCIAL LICENSE AND FOREST MANAGEMENT PRESENTATION

Sarah McCaffrey, Rocky Mountain Research Station, presented research on social license and forest management. Her presentation is summarized below.

- There is often more social license among community members than managers realize. High-level studies indicate that the social license for forest management is growing across the United States. Managers should beware of the imagined public and common narratives that there is not the social license to manage forests. Empirical research does not uphold these narratives.
- One reason that the imagined public narratives exist is sampling bias. The people who show up to meetings often do not like what managers are doing, and people who like or are indifferent to what managers are doing do not show up.

- Another reason that the imagined public narratives exist is because of confirmation bias. Confirmation bias is when people only listen to information that reinforces their opinions and discard evidence that does not. People tend to see and hear things that support their perspectives.
- There is a common narrative that people do not understand the fire risk. Surveys show that people who live in fire-prone areas know they are in fire-prone areas. However, the perception of risk gets complicated when asking what is at risk – are people talking about the risk of their house burning down or the risk to wildlife? People also understand risk across different timelines. Some people may think about risk over the next year, while others think about risk over the next ten years. People also tolerate and perceive risk differently.
- Another common narrative is that residents in fire-prone areas are not taking responsibility for their property. People often recognize that risk does not stop at their property line and that the risk is shared. Generally, at least two-thirds of property owners have undertaken some type of mitigation effort. People will take mitigation efforts for multiple reasons beyond fire risk, such as removing windblown trees. People also expect that the government will provide support by managing public lands, providing specific information to address a landowner's risk, and helping with larger-scale obstacles (e.g., treating on steep terrain, in areas where vegetation grows quickly, and in communities with a high elderly population).
- There is a common narrative that the public thinks that fire is bad. Evidence shows that the public has a good and often quite sophisticated understanding of fire ecology, including the beneficial role of fire. Surveys routinely show that 80% of people see prescribed fire and thinning as appropriate management tools. The remaining 20% will either say it depends or that they are not appropriate management tools.
- There is no consistent evidence that shows that new residents are less aware and/or active in fire mitigation than established residents. The majority of moves (60%) in the US are within the same county; 20% of moves are within the same state; 20% of moves are from state to state. The evidence suggests that new residents are more proactive in treating their properties because new residents tend to seek out new information.
- Another narrative is that part-time residents are less likely to understand fire than full-time residents. Experience does not have consistent effects on residents. A large fire event may be a wake-up moment for some people. For others, a large fire may be evidence that there is no purpose in treating. The evidence suggests that people will pay attention once there is a large event, but they will be more receptive to messages if they have heard the information before. People have a finite pool of worries and can only worry about a handful of things at once. Expecting people to constantly worry about fire is not realistic; instead, communicators should focus on getting people to think about fire risk at the right time.
- There are two ways to build social license: knowledge and trust.
- Knowledge can help people better understand a management technique, and higher knowledge is associated with higher acceptance. People in the southeastern United States may accept prescribed fire more because they see it more frequently. Knowledge of the ecological benefits of prescribed fire is particularly important for people. People often identify that ecological benefits are more important than fire protection. Additionally, it is easier to show the ecological benefits of a prescribed fire after a year than fire risk reduction. Unless a fire comes through a stand following treatment, it is difficult to demonstrate a reduction in fire risk to people. Concerns about the negative outcomes of prescribed fire (e.g., smoke, escape) can affect approval, but concerns decrease as the knowledge of ecological benefits increases.

- The second way to build social license is through trust. Trust in the information provider or treatment implementer predicts acceptance. Additionally, whether local knowledge and context are accounted for in communications can improve trust. Transparency is also a heuristic for trust; people gauge transparency to determine whether the information is trustworthy. People are good at sensing when someone is not being transparent with them.
- Interactive communication can change behaviors and norms. Educational efforts, like creating more brochures and webinars, assume people do not understand because they do not have the right information. In reality, the dynamic is more complicated than that. Interactive communication allows people to ask questions and clarify complex topics. It also creates opportunities for project implementers to hear about community members' real concerns and address those concerns. Interactive communications help build trust.
- Sometimes, implementers think they have to simplify information to understand it. A less complex understanding of a topic is associated with more extreme but unstable views. A more complex understanding of a topic leads to moderate but stable views. When someone raises a concern about a negative outcome, it does not necessarily mean that person does not support a project, and it may mean that that person has a more complex understanding of the topic. One study indicates that most people who raised concerns still supported the project.
- Managers often use dramatic words to get people's attention, such as "megafires," "devastating," and "catastrophic." These words are overly simplistic and create a binary framework among the audience (i.e., fire is either "good" or "bad"). However, a single fire can have good and bad outcomes on the landscape. Another common message is to ask people whether they want smoke now or later; this messaging also makes it difficult to communicate the complex impact fire has on the landscape. It is helpful to use a complex framing when communicating with a public audience.
- Many common narratives about social license have existed for a long time, even preceding the Smokey Bear campaign.
- Project implementers and managers should continually assess their notion of the imagined public with empirical reality. Social license may be less of a barrier than often thought or described.
- More information can be found in GTR-NC-267 and GTR-NRS-111.

Participant Questions

Meeting participants asked Mark Finney and Sarah McCaffrey questions about their presentations. Questions are indicated in italics, with responses in plain text.

If the public has a more complex understanding of prescribed fire, where does the perception that managers do not have the social license to implement treatments come from?

Confirmation bias can make people think that their encounter with a disgruntled person reflects broader community sentiment. Additionally, communicating with the public takes a lot of time and resources. Sometimes, it may be easier for managers to take no action rather than dedicate time and resources to communicate with the public.

Are parallel and strategic treatment patterns influenced by the forest type? For example, would a strategic treatment pattern be different in a lodgepole pine forest vs. ponderosa pine forest? Is there guidance in any GTRs for these treatment patterns?

Yes. More information on treatment patterns in different forest types can be found in the following studies:

- [Stewardship and Fireshed Assessment: A Process for Designing a Landscape Fuel Treatment Strategy](#)
- [SPLATS, SPOTS and the Future of Fuels Treatment](#)
- [Reality Show: SPLATS Take a Trip from Theory to the Tahoe National Forest](#)
- [Strategically Placed Landscape Fuel Treatments Decrease Fire Severity and Promote Recovery in the Northern Sierra Nevada](#)
- [Strategic Placement of Treatments \(SPOTS\): Maximizing the Effectiveness of Fuel and Vegetation Treatments on Problem Fire Behavior and Effects](#)
- [The Influence of Fuels Treatment and Landscape Arrangement on Simulated Fire Behavior, Southern Cascade Range, California](#)
- [Design of Regular Landscape Fuel Treatment Patterns for Modifying Fire Growth and Behavior](#)
- [Simulation of Long-Term Landscape-Level Fuel Treatment Effects on Large Wildfires](#)
- [Calculation of Fire Spread Rates across Random Landscapes](#)

Are there examples of managers conducting prescribed fires in places with high structure density in the West? Should managers start their prescribed fire strategy on public lands or begin by having conversations with communities?

- It takes time to build the social license needed to conduct prescribed fires. However, there is an example of a community with million-dollar homes that accepts prescribed fire in areas with high structure density because the USFS has been working with the community since 1988. The USFS worked with the fire department union and community members to build acceptance over time. Now, the USFS has a memorandum of understanding (MOU) with the community to burn on public and private parcels.
- Over time, the use of prescribed fire has decreased rather than increased. There are obstacles to burning on private lands, such as liability laws. Additionally, western states do not have the extensive implementation structures like they do in the Southeast, where local fire councils allow landowners to come together to burn on their properties. There are some examples of prescribed fire councils in the West, and California is working with private landowners. There is movement towards implementing more prescribed fires in the West at the local and non-federal level, but more could be done.

Has there been a shift in urban residents' perception of fire based on recent bad fire seasons?

Sarah McCaffrey held focus groups in 2004 and 2014 in cities across the West. In those focus groups, people said that fire is a problem that needs to be addressed. They also said that fire is a bigger problem in California than in other western states. Overall, the bad fire seasons may change the perception of fire, but those changes vary. Some people may conclude that firefighters need to suppress the fire faster rather than supporting other management tools. A bad fire season has pros and cons for changing people's perceptions.

If RMRI participants could do one thing to increase the pace and scale of treatment, what should they do?

- Managers often think too small when it comes to planning prescribed fire projects. Many prescribed fire units need to be linked across the landscape to have an impact. There need to be National Environmental Policy Act (NEPA) assessments that account for the entire landscape so that public land managers are not managing the landscape one project at a time.

- Before 2009, the national government assigned fire teams to manage fires in local areas. These types of teams should be re-implemented, and there should be national prescribed fire teams that can help manage local burns.
- There is a need to put more effort into proactive communication and listening. When communicating with the public, managers should consider framing the discussion around the values that affect their everyday lives. Messages will resonate more if they fit into a person's daily life.

Is there potential to launch a national campaign to distribute messages on prescribed fire?

- Prescribed fire is a complex topic, so simple messages will not effectively communicate nuances with people. There could be a national campaign on prescribed fire if it integrated the topic's complexities. There is increasingly more messaging that describes the benefits of prescribed fire in the context of firefighter safety and fire risk reduction. However, many prescribed burns are being done for ecological reasons. The research shows that talking about the ecological benefits of prescribed fire will be more influential.
- As managers adopt new methods to managing fires, their language has to evolve along with their methods. Managers change their tactics, such as allowing some fires to burn, but they describe their changed tactics in the old language. If managers are going to allow fires to burn, they should not describe those fires as "full-suppression fires."

Is there a difference between the way people perceive prescribed fire and mechanical thinning?

Generally, 80% of people support thinning. Thinning messaging comes down to explaining why managers are doing it. There has not been a strong universal pushback on thinning outside some interest groups.

Some people are moving away from "social license" as a term and moving towards terms like "social acceptance" or "social consent." Is there better terminology to use?

There are no magic words to use, but some words are less desirable to use, like "megafires." The term "social license" can be okay, depending on how one uses it. The term "social license" can sometimes refer to educating the public through unidirectional communication instead of creating a complex understanding of the topic through bidirectional communication. Sarah McCaffrey often uses the term "social acceptability" in her papers, but other terms like "social support" could be helpful.

Partner Comments

Meeting participants provided additional comments based on the presentations. Their comments are summarized below.

- Over the last couple of years, some managers have been directed to put fires out immediately due to some of the large wildfires in the West. They have also been directed not to start prescribed fires. Since most of the windows to conduct prescribed fires occur in the fall when many large fires are still burning, these directions often limit the extent to which managers can conduct prescribed fires.

NEXT STEPS

The first RMRI meeting of the year will be a Leadership Team meeting on January 26.¹ The RMRI landscapes will be providing a summary of accomplishments at the meeting.

¹ Following the meeting, the January 26 Leadership Team meeting was rescheduled. The new date for the Leadership Team meeting is forthcoming.