



Wildfire Crisis Strategy Region 4 Roundtable Summary

Leadership Panel Session: May 3, 2022
USDA Forest Service Employees Roundtable: May 4, 2022
Partners Roundtable: May 5, 2022

INTRODUCTION

The 2020–2021 wildfire seasons highlighted an incredible litany of challenges associated with keeping communities safe and resilient to the impacts of climate change and extreme weather events. This growing wildfire crisis has created the need for a new land management strategy within the USDA Forest Service—one designed to support strategic management and restoration of millions of acres of land in high-risk areas to protect forest health, watershed function, and human infrastructure. The need for increased pace and scale of restoration necessitates approaching challenges holistically and in partnership with employees, multiple agencies, Tribal Nations, state and local governments, communities, industries, organizations, and private landowners.

In January 2022, the Forest Service released its [Confronting the Wildfire Crisis Strategy](#) and associated [Implementation Plan](#) (Plan). Under this Plan, the Forest Service will work with partners and interested publics to strategically focus fuels and forest health treatments at the scale of the problem, using the best available science as the guide.

The USDA Forest Service, with the support of the [National Forest Foundation](#), hosted a series of [ten roundtable discussions](#) in the winter and spring of 2022 in support of the agency's effort to gain input on the Wildfire Crisis Implementation Plan. Roundtable conversations with employees and partners are the first of many coordinated engagement opportunities. A separate Tribal Roundtable was convened by the [Intertribal Timber Council](#).



ROUNDTABLE DESIGN AND PURPOSE

The goals of the roundtables were to:

- Share information, goals, and timelines for the 10-Year Strategic Implementation Plan;
- Collect partner and employee input to inform the Plan;
- Provide an opportunity for dialogue among Forest Service leaders and partners to identify key needs and opportunities of the Plan; and
- Gauge ongoing levels of interest and determine ways to leverage that interest and energy.

Each roundtable included three sessions: a two-hour Leadership Panel, during which a group of leaders framed the nature of the wildfire crisis, and two day-long sessions, one with Forest Service employees and one with partners, to offer feedback on the Wildfire Crisis Strategy and Implementation Plan. Please click to view the [agenda](#) and [presentation](#) shared at the Region 4 roundtable.

In addition to the summary of themes provided in this report, the notes captured during roundtable discussions are being shared with (1) appropriate internal agency teams and workgroups and (2) regional Forest Service leadership. Following the conclusion of all ten regional roundtables, the National Forest Foundation will complete a synthesis report that highlights themes from all of the roundtables and recommends process-oriented next steps.

SUMMARY OF LEADERSHIP PANEL

A video recording of the Leadership Panel session is available [here](#). The panel comprised the following individuals:

- **Mary Farnsworth**, Regional Forester, USDA Forest Service Intermountain Region
- **Monica Lear, PhD**, Director, Rocky Mountain Research Station
- **Dustin Miller**, Director, Idaho Department of Lands
- **Emily Fife**, Utah State Conservationist, Natural Resource Conservation Service
- **Dominique Etchegoyhen**, Deputy Director, Nevada Department of Conservation and Natural Resources
- **Joel Bousman**, Commissioner, Sublette County Wyoming
- **Clifford Baneulos**, Tribal-State Environmental Liaison, Inter-Tribal Council of Nevada
- **Mike Rau**, Water Quality Program Manager, Central Utah Water Conservancy District

Overview of Wildfire in Region 4

We are in a crisis of extreme wildfires that has been building for 20 to 40 years and which calls for decisive action. This crisis is growing due to increased fuel loads, climate change, and rapid development into the wildland urban interface (WUI). Forests are overgrown and forest health has declined. While fire seasons used to start in July, already we are seeing major fires in several western states this year in May. Any ignition can cause huge fires that destroy homes, communities, critical infrastructure, and ecosystems. The rising cost of suppression is a heavy burden on state and local governments.



Fortunately, we do know how to restore to fire-adapted forests, and it is by returning forests to roughly historical stocking levels. Mechanical thinning, prescribed fire, and low-intensity wildfires are needed to return to healthy conditions. For decades, the Forest Service has been treating approximately 3.5 million acres annually, of which 2 million acres are in the West. While this is substantial, we need to increase the pace and scale of this treatment approximately four-fold.

It is critical that we focus on the “right” landscapes for treatment rather than continue the recent trend of treating where there is social license and fewer regulatory hurdles. Less than 10% of lands in the western United States are responsible for 80% of the wildfire risk exposure, and this is where we must focus our efforts. The goal is to treat approximately 25%-45% of the land within high priority firesheds and to have maintenance programs in place to preserve gains.

The [Bipartisan Infrastructure Law](#), and the resources it commits to wildfire risk reduction, is an opportunity to step up our collective efforts. The dramatic increase in fuels treatments is about restoring fire-adapted systems, not about achieving certain volumes of forest products.

The Wildfire Crisis Strategy and Implementation Plan identifies priority firesheds. A fireshed is approximately 250,000 acres in size and includes federal, Tribal, state, and private lands. Region 4 has identified four areas as priorities for investment using the fireshed registry and other risk assessment tools: the Wasatch Front, the Sierra Front, the Elko Front, and the Boise Front. Of 29 priority firesheds considered nationally, the Southwest Idaho (Boise Front) fireshed was identified as one of 10 suitable for initial investment and implementation. This designation makes available \$17.4 million in 2022 to support planning and treatment, and an additional approximately \$59.5 million over the next 3 years. This fireshed encompasses 1.7 million acres, of which 928,000 are National Forest System lands.

The Wildfire Crisis Strategy and Implementation Plan build on the Forest Service Cohesive Strategy (2022), which focuses on three areas for success: managing for fire-adapted landscapes, supporting fire-adapted communities, and responding to wildland fire. The Intermountain Region enjoys strong relationships with federal, Tribal, state, and private partners and landowners, and is ready to expand the use of cross-boundary management tools such as Good Neighbor Authority, grants and agreements, the Tribal Forest Protection Act, the Joint Chiefs program, and legislated funds for multiple use. All tools and funding sources are needed and will be brought to bear, and it must be done together, collaboratively.

Rocky Mountain Research Station

The Rocky Mountain Research Station ([RMRS](#)) is committed to working with partners to implement the Wildfire Crisis Strategy and Implementation Plan. The core mission of RMRS is to make accessible the best available science for decision-making and land management. The station has 12 lab locations, including four in the Intermountain Region. It includes over 400 staff across seven research programs, the Aldo Leopold Wilderness Research Institute, and the Science Applications and Communication group.

The Research Station's data, information, and analysis guide planning and projects before, during, and after fire events. The fireshed model, developed at RMRS, has been used to identify



the top 200 landscapes at risk. Managers are also using the potential operational delineation (POD) approach to incorporate many values into planning and prioritization, such as ecosystem services, habitat, source water protection, cultural and heritage resources, and community and critical infrastructure protection.

The Research Station continues to develop tools to build understanding and social acceptance, such as the Co-Management of Fire Risk Transmission ([CoMFRT](#)), the Wildfire Research ([WiRe](#)) Team, and Forest Inventory Analysis (FIA). The [TreeMap](#) tool has been developed to help evaluate wildfire risk to forest carbon. Biochar research is one area of research into uses of forest biomass that serve multiple treatment and economic goals.

Climate change is altering seasons, temperatures, and precipitation patterns, and the Research Station is committed to supporting the integration of climate data into models and decision-making. Likewise, the Research Station will support the integration of Indigenous Traditional Ecological Knowledge (ITEK) and Indigenous stewardship techniques into planning and implementation, including by building relationships with Tribal members and staff.

Idaho

Idaho includes 6.2 million acres of forested lands, all of which require close interagency and cross-boundary work to manage for effective wildfire prevention and response. We can't change the weather, but we can change the conditions and treatments of landscapes. All forest and grassland treatment tools will be necessary. Social license is essential, and we must continue to educate publics on the risks of wildfires, and the benefits of effective treatment and management, including prescribed burning.

[The 2010 Idaho State Forest Action Plan](#), written collaboratively with local, regional, state, and federal partners, was recently updated in 2020. Good Neighbor Authority was established in 2014 through the Farm Bill, and implementation began in Idaho in 2015. Idaho and surrounding states are committed to working with federal partners on forest health treatments.

Efforts in Idaho to streamline environmental review and permitting have acted as a force multiplier, approximately doubling the number of acres treated on National Forest System lands and adjacent areas. Idahoans are getting more comfortable with use of prescribed burning, and federal, state, and local dollars are all being applied to fuels treatment programs.

Natural Resource Conservation Service

The Natural Resource Conservation Service (NRCS) is working throughout the region with training and voluntary, incentive-based programs focusing on private land management. NRCS is a key partner for working with private landowners, is not a regulatory agency, and brings resources to bear for landowners, which can help build relationships and trust. NRCS has programs that offer technical and financial support for thinning, grassland management, fire and fuel breaks, habitat restoration, forest management plans, and more.

Private lands are a key component of addressing the wildfire crisis. Much of the wildland urban interface (WUI), where wildfire risk to humans is highest, and many vibrant landscapes and



ecologically sensitive areas, are in private ownership. Population growth in rural areas and the WUI accelerated during the Covid-19 pandemic, and this trend is likely to continue into the future.

Private landowners must be involved for strong cross-boundary collaboration. The 2008 Farm Bill, which authorizes NRCS funding, emphasized private nonindustrial forest land and increased opportunities for NRCS to provide technical and financial assistance to range and forest landowners. NRCS provides financial assistance through incentive-based contracts with landowners. These programs help landowners implement measures such as forest thinning, rangeland productivity, fire and fuel breaks, habitat improvement, forest management plans, and more. The NRCS business model is based on grassroots conservation, including work with soil and water conservation districts comprising local landowners.

NRCS programs relevant to addressing wildfire risk include the Joint Chiefs Program (implemented with the Forest Service), the Emergency Watershed Protection Program to address post-fire risks, the Regional Conservation Partnership Program, and engagement in Shared Stewardship.

Nevada

In addition to the direct threats to landscapes and infrastructure, Nevada is already feeling public health effects of catastrophic wildfire. In Reno, ozone and particulate matter levels are among the worst in the nation due to wildfire smoke.

The Nevada Department of Conservation and Natural Resources brings to bear many divisions, programs, and resources to contribute to regional efforts to prevent and mitigate catastrophic fire and to support strong fire-adapted communities.

The Division of Environmental Protection administers air quality monitoring and the [Nevada smoke management program](#). The Division of Forestry oversees watershed and forest treatment on state and private lands, and Nevada has the largest inmate workforce program for lands management. The State Historic Preservation Office helps conserve and protect heritage sites as well as at-risk plants, animals, and habitat. The new Division of Outdoor Recreation is working to address responsible recreation, including through participation on the Nevada Tahoe Resource Team and the Environmental Improvement Program. Other key divisions include State Lands and Water Resources, which help manage coordination and reporting systems. Important programs for fire and fuels management include [Conserve Nevada](#), which seeks to restore and protect all landscape types in Nevada, all of which are affected by wildfire and require cross-boundary coordination.

Approximately 81% of land in Nevada is owned and managed by the federal government, particularly the Bureau of Land Management. The remaining land ownership is often a checkerboard of Tribal, state, and private lands. Therefore, Nevada is often in the role of facilitator and contributor to fire and fuels management efforts, and remains committed to serve this role as effectively as possible.



The Intertribal Council of Nevada already plays a central role in coordinating public health, pandemic, and emergency response with Tribal communities and lands. Effective information and data sharing is key, especially in the checkerboard landownership patterns throughout Nevada. It is important to include Tribes early in planning, especially as we see a long-term rise in ambient temperatures and changes to landscapes.

More Tribal members should be sought for fuels treatment, restoration, and fire suppression workforces. This is important not only for Tribal communities but also makes the most of local and traditional knowledge in land stewardship. More agreements need to be completed under the different mechanisms available, such as the Tribal Forest Protection Act. Currently, some emergency preparedness and response funds are available, but it is mitigation and recovery funds that are needed the most by Tribal communities for post-fire restoration.

Tribes are working with the Nevada Division of Emergency Management and the Tribal Emergency Coordination Council and can play similar coordination roles for wildfire. However, it is important to overcome agency egos and attachment to traditional approaches. Open-mindedness and commitment to include and trust Tribes is critical. Currently, there are only four full-time emergency response positions within Nevada Tribal organizations; the remaining positions are part time or grant driven. It is important to collect lessons learned, review low-quality services and subpar recovery plans, and put resources toward coordination that is befitting of government-to-government relations.

To manage prescribed fire effectively, agencies must respect heritage and traditional connections to landscapes and systems.

Wyoming

Traditionally, the role of local government in Wyoming as it relates to wildfire has been to coordinate fire response across agencies and workforces during fire events. Wyoming counties remain committed to supporting these critical efforts while also working to be more proactive in planning, funding, and implementing restoration and fuels treatment efforts with state and federal partners.

Counties are leading the way in developing and updating Community Wildfire Protection Plans. Due to low population and low population density, Wyoming communities, forests, and grasslands are often scored lower in prioritization efforts. However, Wyoming is very involved and interested in such efforts, including with two active forest collaboratives on the Bridger-Teton National Forest.

Wyoming is working closely with the Forest Service, the Bureau of Land Management, and state forestry to identify ways to reduce risk and restore healthy forests. As is the case throughout the region, there are capacity shortcomings for fuels treatment and fire response; therefore, it is critical that we focus first on the areas with the most urgent needs to address this crisis.

Counties are looking for ways to proactively contribute by, for example, helping carry the load of environmental analysis and review. Counties are also looking into the use of Good Neighbor Authority to allow counties to lead projects.

Local government will also need to play a prominent role in the development of new and local markets and industry to treat forest products and avoid reliance upon just prescribed burning to reduce biomass.

Utah

There are 3.4 million acres of forested lands in Utah and even more grasslands, all of which are important to the region's vibrance and resilience. The Central Utah Water Conservancy District serves over 800,000 residents with three treatment plants that provide "finished" water. The Dollar Ridge Fire in 2018 burned over 70,000 acres and had severe impacts on the Strawberry River Watershed. This greatly affected the source water system and treatment infrastructure. It cost \$29 million to update a treatment plant to handle the increased loads and contaminants resulting from fire and erosion. It is clear in Utah that an ounce of prevention is worth (more than) a pound of cure, so water districts and purveyors are ready to focus on prevention and investing in healthy landscapes.

Solutions in Utah, like the rest of the West, must be cross boundary. Strong relationships and communication will be critical for success. As populations continue to grow in the West, including in rural places, we can't expand the amount of water available; we will have to protect and utilize all resources more strategically and effectively.

Wildfire Crisis Strategy and Implementation Plan

Jason Kuiken, Deputy Team Lead for the Wildfire Risk Reduction Infrastructure Team (WRRIT), provided an overview of the WRRIT's work. The WRRIT was established by the Forest Service in 2021 to develop the agency's strategy to reduce wildfire risk and improve forest and community resilience. In January of 2022, the WRRIT published an updated [10-Year Strategy](#) and [Implementation Plan](#). Broadly, the goals for the Strategy and the Plan are to:

- Identify the right locations and tools for fuels and forest health treatments;
- Develop needed workforce capacity and invest in enabling conditions;
- Work with partners across jurisdictions to develop and implement projects that are landscape scale, outcome-driven, and community ready; and
- Support planning and investments in fire-adapted communities.

The 10-Year Strategy establishes a target of treating an additional 20 million acres of National Forest System lands for fuel reduction and resilience, with an additional 30 million acres treated on Tribal, state, and private lands over the next 10 years. The Strategy calls for development of an additional plan to address ongoing maintenance needs beyond the 10 years. The Forest Service cannot achieve management and treatment objectives alone.



Responding to the wildfire crisis is a priority effort of the USDA and the Forest Service. The roundtables seek to engage partners and employees to identify smart, strategic solutions and approaches. The Strategy and Plan build on [more than two decades of focused planning and partnership](#) around the mounting wildfire crisis and seek to harness the collective energy, ideas, and capacities of the agency's workforce and external partners.

The initial timeline for the Strategy and Plan is as follows:

- 2022–2023: Plan development and early engagement
- 2024–2026: Ramp-up of plan, projects, and programs
- 2027–2031 and beyond: Sustain implementation and establish new norms of practice

SUMMARY OF ROUNDTABLES

Themes from Breakout Sessions

In the employee and partner roundtable sessions, participants were invited to participate in three rounds of small-group discussions around five topics. These breakout discussions were designed to collect input on the Strategy and Implementation Plans. In alignment with the key areas of work identified in the Strategy and Plan, breakout sessions were organized around the following discussion topics:

- Science supporting wildfire risk reduction
- Outcome-based prioritization and metrics of progress
- Cross-boundary partnerships
- Workforce capacity
- Markets and industry

Equity and inclusion questions were integrated into each topic. Major themes from each breakout session are summarized by topic below.

Science Supporting Wildfire Risk Reduction

Roundtable participants discussed several questions about the availability and use of science to guide fuels treatment and forest restoration. Participants were encouraged to offer examples of the successful integration of Indigenous Traditional Ecological Knowledge (ITEK) into planning, decision-making, and projects. All participants were invited to describe the challenges and opportunities they continue to face in sharing science across scales and jurisdictional boundaries for strategic forest and fuels management.

Is science being used effectively to support decision-making and projects?

- There is a solid body of science in fire ecology, fuels management, and restoration, and there is a need to get this science into the hands of local and regional partners. However, it is typically not lack of science but shortcomings in funding, social license, regulatory clearance, and mechanisms for cross-boundary governance that limit treatment.
- Geospatial data, light detection and ranging (LiDAR), and remote sensing are increasingly useful tools, but they require substantial resources for analysis, management, and updating.



Gaps in information and data

- Risk assessment data should be updated more frequently. Once per decade isn't enough given rapidly changing conditions on the ground.
- Habitat conservation science needs to be integrated into fuels reduction science.
- Science-based messaging is needed to build support for prescribed fire.
- Need updated species occurrence maps, such as for invasive grasses and lynx. If outdated assumptions about habitat condition are used, treatments cannot be responsive.
- Dedicated funding and positions are needed for monitoring before, during, and after a fire event.
- More information is needed on the impacts of smoke and wildfire on habitat, water quality and availability, and public health.
- Understanding of the health effects of prescribed fire smoke versus smoke from extreme fire events is needed to help "tell the story."
- There is a need for more fire ecologists, ideally *at least* one per forest.
- More social scientists and effective communicators around risk and complexity are needed.
- A projection or estimate of the scale of treatment possible given regulatory and other constraints may help ground discussions and communicate urgency.

Incorporation of Indigenous and Traditional Ecological Knowledge

- There are limited examples of work with Tribes to incorporate traditional knowledge.
- Interstate and interagency work on Sage Grouse habitat is one example of early and ongoing engagement with Tribes. There has also been some success working with Tribes to manage for elk and deer habitat along with addressing fire and fuels goals.
- It is challenging to weave together western science and traditional knowledge. "Scientists can come across as arrogant and even disrespectful because we have ways of thinking about data and testing evidence that make sense to us but not to someone who's been on a particular landscape for thousands of years and works from story."
- Tribes don't have a lot of capacity to engage with the Forest Service; Tribes may work on different timelines that don't fit well into National Environmental Policy Act (NEPA) planning or agency timelines.
- The Nez Perce Tribe has a strong natural resource department, but their recommendations haven't always been accepted by Forest Service.

Effective strategies for sharing information

- [Utah Shared Stewardship](#) priority area mapping
- [Idaho Forest Restoration Partnership](#) forest dashboard
- Story maps built collaboratively with partners and academia
- Use of partners to share messages about land management goals, risks, and tradeoffs; the Forest Service isn't always the most trusted messenger.

Partnerships in science



- Emergency and incident response offer excellent models for information sharing within a crisis. Can these models be adapted for treatment for fuels and resilience?
- Some of the best information, models, and datasets are siloed or isolated within different divisions of agencies and organizations. The Forest Service can play a leadership role by investing in networks and shared information infrastructure.
- Consistent units, standards, and assumptions can help local and regional partners contribute to the never-ending task of updating databases and models.
- In order to “move the needle” on pace and scale of treatment, the Forest Service should:
 - Be humble, ask for help;
 - Do something about the severe limitations in workforce capacity;
 - Do better, more efficient environmental analysis under NEPA; and
 - Where there is a backlog of cleared projects, but insufficient burn windows, work on expanding social license.
- Remember: Science doesn’t make the decision! All decisions are value decisions.

Outcome-Based Prioritization and Metrics of Progress

During the kickoff session, the Leadership Panel described an ongoing challenge: the lands with the greatest need are not treated for fuels reduction. Instead, lands that are accessible and available for treatment receive project investment. Participants were invited to discuss more effective and efficient ways to work across boundaries to prioritize and treat the areas that will result in the greatest reduction in risk of catastrophic wildfires. Participants were also encouraged to offer examples and models for monitoring both to identify lessons and to maintain treatment goals.

Including the range of values in prioritization

- When it comes to effective methods for prioritization, the most important and most difficult piece is establishing criteria that include the range of community, ecosystem, and heritage values.
- It is important to include key urban municipal watersheds and source waters in prioritization. Likewise, digital infrastructure should be considered among assets to be protected.

Prioritization and planning tools

- There are many good data sources and planning tools for prioritization, however they need integration. Examples include LiDAR, PODs, forest action plans, drones, and community wildfire plans.
- When it comes to the collection, analysis, and management of data, look outside the Forest Service and trust partners to help carry the load.
- Quantitative wildfire risk assessments are valuable but need quick turnaround and must be continuously updated to keep up with changing conditions.
- More coordinated and clear metrics for large landscape monitoring and modeling would help integrate models at the landscape, fireshed, and national/global scales. Can we rely on partners to help develop and avoid reinvention? Does the National Park Service offer examples of large landscape metrics that include a range of values?

- How can citizen science be expanded for better monitoring of conditions?

Communication and collaboration

- In working with Tribes and Tribal communities, the Forest Service often gets in its own way with cumbersome systems and requirements and high staff turnover. Successful engagement requires respect and meeting Tribes in their places.
- Relationships are key to success. Place-based collaboratives demonstrate how investment in shared understanding and planning pays dividends during implementation.
- Suggestion: Work to have clear, simple, and timeless messaging, avoiding jargon and new terms for old concepts. Lingo changes but the key themes in resilience and fuels management remain the same. Stick to the essentials to best serve the Forest Service's multiple-use mission.

Improvements to systems and procedures needed

- Smaller and more rural communities often feel they are competing (and losing out to) communities with larger populations or higher land value when it comes to treatment and suppression resources.
- A consistent theme arose in small group discussions: In the face of urgency, addressing this crisis will nonetheless take time. It will require strong relationships, which take time to build.

Cross-Boundary Partnerships

Roundtable participants in the Intermountain Region offered rich feedback on the efficacy of different mechanisms and processes to integrate fuels treatment and forest restoration on Tribal, National Forest System, and state and private lands.

Examples of success

- Long history of Shared Stewardship in the region
- Joint Chiefs Landscape Restoration Partnership
- [Utah's Watershed Restoration Initiative](#), which serves as a bridge between agencies/areas
- Work with local, state, and federal partners on timber sales and prescribed burning
- The Nature Conservancy's collaborative approaches and partnership for fuels treatment in Idaho

Ways to improve mechanisms for cross-boundary governance and resource sharing

- Decouple money from agencies and establish pools of funding that can be allocated for common objectives and cross-boundary work.
- Map workforce needs and share hiring and positions across agencies and partners. Don't seek to fill all expertise within the Forest Service.
- Focus in the near term on improving contracting to get available funds on the ground as quickly as possible.
- Maintain funding for collaborative capacity and to support place-based initiatives.
- Streamline grants and agreements. Remove or adjust the match requirements for partners in agreements.



- The goal is shared risk and responsibility for planning, funding, implementation, and outreach.

Overcoming barriers to cross-boundary work

- Invest in programmatic NEPA and other efficiencies in environmental review and permitting. Work with state agencies to share regulatory and permitting workloads.
- Hire partnership coordinators within the Forest Service.
- Maintain collaborative capacity funding, which is needed to keep strong community engagement.
- Build on the success of place-based collaboratives. May not need many more new collaboratives, but should focus on maintaining the collective wisdom and trust that is contained in current efforts.

Workforce Capacity

The Leadership Panel identified a critical set of challenges regarding adequate resources to collect and process fuels and forest products. For example, participants were invited to identify the key workforce skills needed to accelerate treatment and different models for meeting these workforce needs within the Forest Service, and beyond, with expanded capacity among partners.

Key workforce constraints

- Housing availability and costs (suggestion: build RV pads and systems for mobile, seasonal, and even full-time workers)
- The fire suppression workforce is already overtaxed, so should not look here for extra capacity for treatment and recovery
- Few benefits, low wages, and uncertain career paths

Working with Tribal and underserved communities

- Turnover in Forest Service staff inhibits the development of long-term relationships and trust.
- Challenges to working with underserved communities include:
 - Lack of clear definitions or strategies for reaching the underserved
 - Most underserved, remote, rural, and small communities and organizations lack the expertise to navigate and manage funding and partnership mechanisms
 - Lack of information on the effects of smoke and wildfire on underserved communities
- The US government's [Climate and Economic Justice Screening Tool](#) can be used to identify underserved communities.

Suggested improvements to hiring and workforce systems:

- Develop full-time positions for fuels treatment and prescribed burning as well as suppression forces.
- Consider using AmeriCorps positions to access funding and new communities for the workforce.
- Facilitate adaptability and integration across positions but recognize the need to avoid putting more strain on suppression positions.

- Fuels/wildfire/prescribed/treatment should become permanent positions
- Critical skills and expertise include:
 - Contracting, grants, agreements, and management
 - “Soft skills” for teamwork, partnership, relationship building, collaboration
 - Science communicators
 - Regulatory experts that can expedite NEPA and other requirements
- Share applicant pools across federal agencies.
- Conduct hiring events at colleges and universities.
- Streamline federal application processes.
- Offer more online training to improve access to textbook components.
- Develop more options for training and mentorship programs at community colleges and local universities.
- Bundle tasks within contracts to enable smaller companies to respond to Requests for Proposals.
- Offer several duty station options so staff are not required to live in just one community.

Markets and Industry

Lack of markets and infrastructure to treat small-diameter wood and other by-products of restoration pose critical challenges to addressing the wildfire crisis. Participants were invited to describe the state of the forest products markets and infrastructure across the region and identify strategies to increase the processing of fuels removed from forested lands.

Robustness of forest markets in the region

- The state of markets and infrastructure vary across the region, but overall is diminished and not robust.
- Idaho is fortunate to have substantial infrastructure remaining to process traditional timber products in the north, west, and southwest areas of the state.
- Utah has hired a new State Wood Products Innovation Coordinator.
- Wyoming has a small level of activity for treatment and processing of forest products.
- Nevada is looking to acquire mobile mills for hazardous fuels reduction. Almost all infrastructure is in the western part of the state.

Challenges

- It is a struggle to define future markets and goals without a stable, consistent, long-term source of materials; thus, 20+ year contracts are preferred.
- Regulations, rules, and funding are changing across administrations. Industry needs long-term stability.
- Forest and county roads need upgrading and maintenance to handle the weight of trucks and biomass removed.
- New markets or subsidized treatment are needed for low value biomass such as beetle-killed and small-diameter trees.
- Climate change is accelerating small-diameter fuel loads and dense forests.

- Burdensome processes for contracting, grants management, and reporting prevent partnerships with private industry.

Underserved communities

- Planners and decision-makers need useful definitions of “underserved communities” and guidance for effectively engaging and serving them.
- Tribes and underserved communities are often located in areas that need treatment. There is a need to build trust and educate both sides on the benefits of the work together. The agency should listen and find alignment in objectives as a starting place and build from there.
- Working with local economic development professionals can help address equity issues.
- Underserved communities aren’t always geographic and can be segments of a population.

Examples of success

- Western states and federal partners have had some success moving in this space through shared stewardship and a focus on large landscapes – finding efficiencies because the same industry needs exist across all pieces of the landscape.
- Small markets are being developed throughout the region: dead lodgepole shavings are used for turkey bedding in Utah, essential oils in northern Idaho, furniture production, etc. By themselves they cannot meet the demand but can contribute to capacity.
- State universities and community colleges are offering more training and certification in forest operations, forest nursery management, and wildland fire management. These programs should be modeled and expanded, focusing on recruiting students from local communities in the region.
- The pallet market has room for expansion in the region.

Reframing the solution

- Much of the work that needs to be done can be considered hazardous waste removal rather than harvesting forest products. This reframes goals, approaches, and messaging around the crisis and needed response.

APPENDIX A
Wildfire Crisis Strategy Region 4 Roundtable
Participating Employee Units and Staff Areas

The Intermountain Region invited 113 employee representatives to participate in this roundtable. Approximately 70 employees attended this virtual event, held over Zoom. The participants represented a broad range of Forest Service units and programs/staff areas from across the region.

Forest Service Unit	Staff Area or Program
Ashley National Forest	Fire Management
Ashley National Forest	Natural Resources
Ashley National Forest	Soil, Water, Air
Ashley National Forest	Timber
Boise National Forest	District Ranger
Boise National Forest	Fire
Boise National Forest	Fire Management Officer
Boise National Forest	Forest Fuels Planner
Boise National Forest	Forest Supervisor
Boise National Forest	Silviculture
Boise National Forest	Wildlife, READ
Bridger-Teton National Forest	Fire/Timber Staff
Caribou-Targhee National Forest	District Ranger
Caribou-Targhee National Forest	Fire, Fuels, & Aviation Management
Caribou-Targhee National Forest	Fuels
Caribou-Targhee National Forest	Range
Caribou-Targhee National Forest	Supervisor's Office
Caribou-Targhee National Forest	Timber
Caribou-Targhee NF, Curlew NG	Resources and Planning
Dixie National Forest	Escalante Ranger District
Dixie National Forest	Forest Fire Staff
Fishlake National Forest	Fire, Fuels, & Aviation Management
Fishlake National Forest	Forest Supervisor
Fishlake National Forest	Timber
Humboldt-Toiyabe National Forest	Deputy Forest Supervisor

Humboldt-Toiyabe National Forest	District Ranger
Humboldt-Toiyabe National Forest	District Ranger
Humboldt-Toiyabe National Forest	Vegetation Management
Intermountain Regional Office	Deputy Regional Forester
Intermountain Regional Office	Deputy Regional Forester
Intermountain Regional Office	Field Procurement Operations
Intermountain Regional Office	Fire & Aviation Management
Intermountain Regional Office	Fire & Aviation Management
Intermountain Regional Office	Forest Health Protection
Intermountain Regional Office	Fuels
Intermountain Regional Office	Fuels
Intermountain Regional Office	Grants & Agreements
Intermountain Regional Office	Information Management
Intermountain Regional Office	Infrastructure Coordinator
Intermountain Regional Office	Natural Resources
Intermountain Regional Office	Natural Resources
Intermountain Regional Office	Natural Resources
Intermountain Regional Office	NWTF Liaison to USFS
Intermountain Regional Office	Planning
Intermountain Regional Office	Regional Forester Team
Intermountain Regional Office	Renewable Resources Management
Intermountain Regional Office	State & Private Forestry
Intermountain Regional Office	Strategic Communications (Idaho State Liaison)
Intermountain Regional Office	Tribal Relations Program Manager
Payette National Forest	Fuels
Payette National Forest	Natural Resources
Rocky Mountain Research Station	Science Application & Communications
Rocky Mountain Research Station	Station Director
Rocky Mountain Research Station	Water & Watersheds Science Program
Salmon Challis National Forest	Fire
Salmon-Challis National Forest	District Ranger (acting)
Salmon-Challis National Forest	Fire Management
Salmon-Challis National Forest	Fuels and Fire Management

Salmon-Challis National Forest	Supervisors Office
Salmon-Challis National Forest	Timber/Fuels/Recreation Staff Officer
Sawtooth National Forest	District Ranger
Sawtooth National Forest	District Ranger
Sawtooth National Forest	Fire Staff Officer
Sawtooth National Forest	Fire/Fuels
Sawtooth National Forest	Forest Supervisor
Uinta-Wasatch-Cache National Forest	District Ranger
Uinta-Wasatch-Cache National Forest	Fire, Fuels, and Aviation
Uinta-Wasatch-Cache National Forest	NEPA
Uinta-Wasatch-Cache National Forest	Salt Lake Ranger District

APPENDIX B
Wildfire Crisis Strategy Region 4 Roundtable
Participating Partner Organizations

Region 4 invited 118 partner representatives to participate in this Roundtable. Approximately 45 partners attended this virtual event. The participants represented a broad range of stakeholders and sectors in this region.

Boise Cascade
Bureau of Land Management
College of Natural Resources
Council of Western State Foresters
Forestry, Fire & State Lands
Idaho Conservation League
Idaho Department of Lands
Mule Deer Foundation
Natural Resources Conservation Service
Nevada Association of Counties
Nevada Cattlemen’s Association
Nevada Department of Wildlife
Nevada Division of Forestry
Nevada Emergency Management
Nevada Mining Association
Payette Forest Coalition
Public Lands Policy Coordinating Office
Rocky Mountain Power
State of Nevada
State of Utah (FFSL)
Sublette County Conservation District
Sublette County Unified Fire
The Nature Conservancy
Utah Department of Agriculture and Food
Utah Department of Natural Resources
Utah Forestry Fire and State Lands
Utah State University/Great Basin Fire Science Exchange
Utah's Public Lands Policy Coordinating Office
Wyoming Department of Agriculture
Wyoming Game and Fish
Wyoming State Forestry Division