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# THE FINDINGS AND RECOMMENDATIONS OF THE WILDLAND FIRE MITIGATION AND MANAGEMENT COMMISSION

## HEARING

BEFORE THE

## COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

SECOND SESSION

MARCH 12, 2024



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# THE FINDINGS AND RECOMMENDATIONS OF THE WILDLAND FIRE MITIGATION AND MANAGEMENT COMMISSION

**TUESDAY, MARCH 12, 2024**

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
*Washington, DC.*

The Committee met, pursuant to notice, at 10:00 a.m. in Room SD–366, Dirksen Senate Office Building, Hon. Joe Manchin III, Chairman of the Committee, presiding.

## OPENING STATEMENT OF HON. JOE MANCHIN III, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. The meeting will come to order.

This morning, we are going to be discussing the findings and recommendations that recently came out of the Wildland Fire Mitigation and Management Commission. The Commission was created by the Bipartisan Infrastructure Law, taken from a bill sponsored by Senators Romney and Kelly. The 50-person commission was co-chaired by FEMA and the Departments of Agriculture and the Interior. Its directive was to recommend policies to improve federal forest and wildfire management. Over the course of a year, they examined everything from active forest management to contracts for firefighting aircraft, and came up with 167 unanimous recommendations. We envy you on unanimous recommendations. We are going to focus on recommendations targeted at the federal land management agencies, and our witnesses represent a cross-section of the diverse topics explored by the Commission.

To set the scene, even though it's only March, we have already had record-breaking wildfires in the U.S. The Smokehouse Creek wildfire two weeks ago in Texas scorched more than one million acres, killing two people, and destroying hundreds of homes. This was the largest wildfire in Texas history, and it happened in February. It literally snowed while the fire was still raging. This isn't and shouldn't be normal, but wildfires are now breaking records every year.

The severity of these fires has also become a significant drain on U.S. resources and our productivity, even beyond the devastating loss of life and property. For starters, U.S. spending on fire suppression has increased by 300 percent since the 1980s, even after accounting for inflation. Wildfires also slow down business and tourism, and severely burned landscapes filter less water, store less carbon, and transport more sediment to our streams and res-

ervoirs. The National Institute of Standards and Technology attempted to quantify the economic impact of these fires in 2017 and found that the cost and losses could exceed $400 billion per year. I know that my colleagues on the Committee, particularly those from western states, are all too familiar with these statistics and the terrible tragedies that accompany severe wildfire.

Congress, however, has taken some action to get our forests back to a healthier condition. Between the Bipartisan Infrastructure Law and the Inflation Reduction Act, federal land management agencies will receive over $24 billion. That's a lot of money. These laws also included some common-sense reforms, like streamlining the permitting for fuel breaks near communities. They also provided the brave men and women serving as federal wildland firefighters with a temporary pay supplement to better reflect the critical, but dangerous job they perform.

I want to thank all 50 members of the Wildland Fire Mitigation and Management Commission for their time and effort spent studying this issue and providing us with options to further improve our forests and wildfire management practices. Clearly, with 167 recommendations, you discovered plenty of issues, and your conversations generated plenty of ideas.

Some of these were topics that our Committee has covered in past hearings, or that have existing legislative proposals in Congress to address them. For example, the Commission noted that many areas with high fire risk are characterized by small-diameter, low-value trees. Expanding the universe of wood products made from small-diameter timber could radically expand the areas where thinning treatments are both necessary and profitable. A bill that I introduced with Ranking Member Barrasso last year, the "America's Revegetation and Carbon Sequestration Act," would do just that.

The Commission also noted the need to fix a problem related to firefighter retirement benefits that our Committee has discussed before. Currently, if a firefighter takes a break of more than three days during a 20-year career, that firefighter gives up their special retirement benefits. Ranking Member Barrasso and I have worked on another bill together, the "Promoting Effective Forest Management Act," which would fix this problem also. Bipartisan, common-sense solutions to these problems exist, and I look forward to hearing ideas from my colleagues on how we can address the recommendations from the Commission this morning.

Since the Forest Service and the Department of the Interior served as co-chairs of the panel, I am also interested to hear what administrative changes the agencies are considering as a result of these reports. The report drove home the need to return low-intensity fires in many areas, and I know the agencies conducted a record-high number of prescribed burns last year. What is less clear is whether those burns were in areas with the highest wildfire risk. The Commission encouraged agencies to adopt region-specific prescribed fire targets to better track actual hazardous fuels reduction. Tucked in at the end of the wildfire report is a recommendation to overhaul the way that agencies report their treatment metrics and hopefully stop double- or triple-counting acres. Since these recommendations were unanimously adopted, I hope

this means that the agencies finally accept that they need to provide more transparency on how appropriated dollars translate into on-the-ground work.

So let me just thank our witnesses for being here today, as well as the Commission's coordinators, for their work to make this happen. I look forward to hearing your perspectives on these issues.

And with that, I will turn to Ranking Member Barrasso for his opening remarks.

**OPENING STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM WYOMING**

Senator BARRASSO. Well, thank you, Mr. Chairman. Thank you for holding this important hearing. Thank you to all of the witnesses.

As you said, Mr. Chairman, wildfires are devastating communities across America, and especially in the West. Wyoming is no exception. Just 12 days ago, the Happy Jack Fire threatened homes and infrastructure in and around our state capital of Cheyenne. And as you point out, Mr. Chairman, that fire was in February. This is very early for fire season. This fire serves as a sobering reminder that we are in a wildfire crisis, and the crisis isn't going to solve itself. Our federal forests are in dire need of effective management. In recent years, Wyoming and other western states have endured wildfires of unprecedented size and destructiveness. These wildfires are wreaking havoc on our forests and on our communities. So until we start to manage our forests properly, the crisis is going to continue to escalate.

The Forest Service estimates that 278 million acres are at high or very high risk of wildfire. Mr. Chairman, this is an area more than 17 times the size of your home State of West Virginia. On average, more than six million acres burn each year. Federal costs to suppress these fires have exploded to well over $2.5 billion each year. Fire seasons are now longer, they are more destructive, and they are more expensive. As summer approaches, rural communities are again bracing for what will likely be another devastating wildfire season.

This Committee has had this discussion before, and every year it becomes more clear that we are on an unsustainable path. We can't just keep throwing more money and resources at the problem. We need to get back to the basics. We need to start managing the forests in a serious and credible way. We need to increase the pace and the scale of our wildfire mitigation activities, and that includes timber harvesting and hazardous fuel reduction. For years, officials for the Forest Service and the Department of the Interior have testified that a paradigm shift is needed. In response, Congress has given both agencies billions of dollars in additional taxpayer funding. We still have not seen the agencies do sufficient work on the ground, which is what is needed to do to address the crisis.

So today we are reviewing another Congressionally mandated report on how to address wildfires. The report is about 350 pages long. It includes 148 recommendations. And while all of us here recognize the urgency of the problem, acting on nearly 150 recommendations is impractical and it's not entirely helpful. To effectively address the wildfire crisis, we need to strengthen what is

working well. That means eliminating red tape to expedite critical fire mitigation projects. The Forest Service and the Department of the Interior must make these efforts a priority, but they shouldn't try to do it alone. From recruiting and training firefighters, to mitigation planning and project work, federal agencies truly need help. Federal agencies need to allow local communities, state agencies, and Indian tribes to help get this vital work done. We all need to work together. The Commission report shows that we should focus our time and resources on cross-boundary, locally led efforts to address wildfire risk.

Now, I remain troubled that the Commission excluded representatives from my home State of Wyoming. Wyoming is a national leader in increasing the pace and the scale of good forest management, while at the same time, increasing wildfire preparedness. This is exactly what the rest of the nation needs to do. The Biden Administration is not just failing to effectively manage our nation's forests, they are actually pursuing what I believe are misguided nationwide mandates to prevent good management in old-growth forests. Instead of restricting responsible forest management, this Administration should focus on how to get more management done across fire-prone lands. The Biden Administration shouldn't delay or make it more difficult to do this crucial work.

I would like to welcome Kelly Norris, and I will introduce her in a little bit, Mr. Chairman, who is Wyoming's State Forester, as well as all the witnesses today. Thanks so much for being here.

Thank you, Mr. Chairman. I look forward to the testimony.

The CHAIRMAN. Thank you, Senator.

And now we are going to go to Senator Cantwell for an introduction, and I am going to come back to Senator Barrasso for his introduction, and I will do the other three.

## OPENING STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Chairman Manchin, and thank you, Ranking Member Barrasso, for holding this important hearing, and I want to thank the witnesses for participating.

I want to introduce the Executive Director of the Confederated Tribes of Colville Reservation, Cody Desautel. Thank you for being here, Mr. Desautel. You are an expert in this particular area, and have two decades of expertise in forestry, wildfire preparedness, and mitigation. The Colville has faced some of the most brutal fires that we have had in the Northwest, losing, I heard on one account, almost $2 billion of timberland in one fire, but it has clearly been impacted in a major way. And you have, because of this, tried your own management practices with fire breaks and various issues. So I hope to hear about that today.

You are the Executive Director of the Confederated Tribes of Colville, but serve as the President of the Intertribal Timber Council, and before this, served in tribal government as the natural resources director for eight years. Throughout his career he has been an exceptional advocate to protect tribal natural resources and tribal cultures and economies. I think your tribe gets about 20 percent of your revenue from this timberland, so it's a very important issue for you economically. The Confederated Tribes are on the front

lines of the crisis, as I mentioned, located in the northeast corner of our state, bordering the Okanogan-Wenatchee National Forest. Fire does not know jurisdictional boundaries, that is the issue. And so, when it comes to working across jurisdictions, I think Mr. Desautel is going to tell us what that experience has been as part of the Wildland Fire Management and Mitigation Commission.

And so, I look forward to hearing about those tools that you have deployed that you think have made you, in those latter years since the big fire—not that there have not been many big fires, but since the big one in 2015—what you have successfully done that we could all learn from today.

So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

And now we have Senator Barrasso for his introduction.

Senator BARRASSO. Well, thanks, and thank you also Senator Cantwell. She and I were working together at a field hearing that we held a number of years ago in Washington State, taking a look at the commonalities into the points that you just made. So it's good to have all of those people here testifying.

And I am delighted to have with us today, Kelly Norris, and she has testified previously before this Committee. She is Wyoming's State Forester. She has been in that position for nearly a year. Before that, she served as our interim state forester. She is a resident of Cheyenne, Wyoming. She has a degree in forestry from the University of Wisconsin. She has worked for the Wyoming State Forestry division for 14 years. We are very fortunate to have her because she has experience working as a forester for both the State of Wyoming as well as the U.S. Forest Service, with years' worth of critical on-the-ground knowledge, and is a valuable resource to the community and to this Committee.

I am grateful that you have taken the time and the responsibility to protect Wyoming's forests. Thank you for joining us today.

Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

And we have Ms. Meryl Harrell. She is Deputy Under Secretary for Natural Resources and Environment at the Department of Agriculture.

We have Ms. Joan Mooney, Principal Deputy Assistant Secretary for Policy, Management, and Budget at the Department of the Interior.

And we have Ms. Madelene McDonald. She is a Senior Watershed Scientist at Denver Water.

And now, we will start with your opening remarks, Ms. Harrell.

## STATEMENT OF MERYL HARRELL, DEPUTY UNDER SECRETARY, NATURAL RESOURCES AND THE ENVIRONMENT, U.S. DEPARTMENT OF AGRICULTURE

Ms. HARRELL. Thank you.

Chairman Manchin, Ranking Member Barrasso, and members of the Committee, thank you for the opportunity to testify about the important work of the Wildland Fire Mitigation and Management Commission. I would like to start by thanking Congress for establishing this Commission. I served as one of the co-chair designees on behalf of Secretary Vilsack. It has been an honor to serve along-

side my fellow Commission members, each of whom brought unique knowledge, skills, perspective, and experience to this effort. And I want to recognize the many Commission members, coordinators, staff, and subject matter experts who are here in this room today.

For decades, the wildland fire crisis has been growing. Larger, more severe wildfires are devastating communities and ecosystems and threatening lives and livelihoods across the country. Public health impacts are increasing, along with harm from cascading disasters like floods and landslides. This is a challenge that crosses the natural and the built environment, from rural and urban communities to the lands that surround them. At the same time, fire is also a critical part of the solution to this challenge. Returning fire to the land, including through prescribed fire and cultural burning, is necessary to restore fire-adapted ecosystems and reduce risk to communities.

Recognizing the urgency of this crisis, Congress, in the Bipartisan Infrastructure Law, directed the creation of the Commission and charged it with developing a comprehensive set of recommendations within one year. The Commission's work was informed by ongoing strategies, including the Forest Service's wildfire risk strategy and by the work of leadership bodies like the Wildland Fire Leadership Council. Commission members considered every phase of the wildfire challenge, from pre-fire mitigation to response and post-fire recovery. The Commission also considered key enabling conditions, including the need for a comprehensive workforce; science, data, and technology; and the relationships and resources necessary to meet this societal challenge. Recognizing that Congress often hears divergent views, it was important for the 50 Commission members to come to consensus before moving any recommendations forward. The recommendations in the Commission's aerial equipment strategy report and the 148 recommendations in the Commission's final report reflect the consensus views of the Commission and received unanimous support.

Addressing this complex problem requires an integrated set of solutions. The Commission highlighted the central importance of our workforce in its recommendations, including the need to invest in a comprehensive workforce, paying wildland firefighters what they deserve, and ensuring they have the benefits they need, including for housing, mental and physical health, work/life balance, and retirement. We appreciate your action, just in the last week, to pass a budget that will extend supplemental pay increases for our wildland firefighters through the end of this fiscal year, and we stand ready to work with you to make these pay increases permanent, as called for in the President's FY25 budget, and invest in the well-being of our entire fire workforce, as recommended by the Commission.

The Commission's recommendations address systems, tools, and authorities needed to operate at scale. We focused on the role of partnerships, recognizing we need an "all hands, all lands" approach, and that fires don't follow jurisdictional boundaries. Importantly, the Commission recognized the long history of indigenous stewardship related to fire, and emphasized the importance of indigenous knowledge and stewardship into the future. Recommendations included increasing work with states, counties, local commu-

nities, and private landowners; expanding tribal co-stewardship and co-management; and increasing collaboration with industry, utilities, non-profit, public health, and other partners. The Commission focused on community resilience as well, including investing in pre-fire planning and risk mitigation, increasing ignition resistance within the built environment, and increasing support for post-fire recovery. Members recognized that wildfire risk is not experienced equally, and identified recommendations to help increase access to programs for communities that need them the most. And the Commission recommended sustained, predictable, and long-term investments at the scale needed for transformational change, building on the down payment provided through BIL and IRA.

The Commission's recommendations are consistent with the priorities in the President's FY25 budget, including on topics such as firefighter pay, housing, and mental health. We are in action right now on many fronts to advance work in the wildfire space while laying the groundwork for further Congressional action on the Commission's recommendations. Together, we can realize a future in which we have a different experience of wildfire risk and resilience. The work of the Commission represents a path to that better future. Thank you for the opportunity to testify, and I am happy to answer any questions.

[The prepared statement of Ms. Harrell follows:]

**TESTIMONY of**
**DEPUTY UNDER SECRETARY, MERYL HARRELL**
**UNITED STATES DEPARTMENT OF AGRICULTURE—NATURAL RESOURCES AND ENVIRONMENT**
**BEFORE THE**
**UNITED STATES SENATE**
**COMMITTEE ON ENERGY AND NATURAL RESOURCES**

**March 12, 2024**

**Concerning**
**The Wildland Fire Mitigation and Management Commission**

Chairman Manchin, Ranking Member Barrasso, and Members of the Committee, thank you for the opportunity to appear before you today to discuss the Wildland Fire Mitigation and Management Commission's (Commission) recommendations to Congress. We appreciate the Committee's interest in the Commission's work and in our efforts at USDA and with partners to reduce wildfire risk and increase resilience. I am testifying today in my capacity as a Co-Chair Designee of the Commission.

The 2021 Infrastructure Investment and Jobs Act (Bipartisan Infrastructure Law) created the Commission and charged it with developing, within one year of its first meeting, a comprehensive set of recommendations for Congress about how to support our nation as we prepare for, respond to, recover from, and live with wildfire. The Commission was co-chaired by the Department of Agriculture (USDA), the Department of the Interior (DOI) and the Federal Emergency Management Agency (FEMA). I led the Commission as Co-Chair Designee on behalf of Secretary Vilsack, alongside DOI Principal Deputy Assistant Secretary Joan Mooney, and U.S. Fire Administrator Dr. Lori Moore-Morrell.

I'd like to start by thanking Congress for establishing this Commission. It has been an honor to serve alongside my fellow commission members and Co-Chair Designees, each of whom brought unique knowledge, skills, perspectives, and lived experiences to this effort. The 50 Commission members were selected from more than 500 applicants, representing federal agencies, state, local, and Tribal governments, wildland firefighters, public health experts, public utilities, emergency management, the private sector, non-profit organizations, academia, and other areas of expertise. Together, they represent a broad and diverse group of subject matter experts spanning nearly every facet of wildland fire mitigation and management. Commission staff and numerous subject-matter experts were also invaluable to the Commission's deliberations.

Commission members put in an estimated 9,000 hours of time over one year to meet the deadlines set by Congress, delivering an Aerial Equipment Strategy Report in January 2023, and a final Wildfire Mitigation and Management Commission Report in September 2023. Working together, the Commission members were able to come to unanimous consensus on the 148 recommendations in the Commission's final report to Congress. These recommendations are comprehensive and interrelated, reflecting the urgency and scale of the challenge we face as a nation.

For decades, the wildland fire crisis has been growing, with larger and more severe wildfires devastating communities and ecosystems, and threatening lives and livelihoods across the country. Exacerbated by climate change, catastrophic wildfires threaten lives, homes, communities, and infrastructure. Agricultural impacts are increasing. Impacts to human health are also becoming more significant and widespread, as we saw from the smoke that filled our skies last summer. Increasingly intense and destructive wildfires also threaten the environment, impacting water availability and quality, carbon storage, wildlife habitat,

soil stability and watershed function, and creating the conditions for cascading disasters, including post-fire flooding, landslides and debris flows. In some cases, we see long-term deforestation from large, high severity wildfires.

This is an urgent crisis. Our best science indicates that the frequency, size, and severity of wildfires are projected to increase, including in areas that have little to no history of wildfire. This is a challenge that crosses the natural and the built environment, from rural and urban communities to the lands that surround them.

At the same time, fire is also a critical part of the solution to this challenge. The Commission recognized that returning fire to the land, including through prescribed fire and cultural burning, is necessary to restore fire-adapted ecosystems and reduce the risk that high-severity fires pose to communities. In discussing the importance of a restoring a different relationship with fire, the Commission recognized the historic role of Indigenous stewardship related to fire and emphasized the continued importance of Indigenous stewardship of fire-adapted landscapes into the future. Indigenous Knowledge and the cultural use of fire are key drivers in natural fire regimes and therefore must be acknowledged and addressed in the development of targets.

The Commission spent a significant amount of time thinking about partnerships and collaboration among federal agencies, States, Tribes, local governments, and many other partners, recognizing that this is a multi-jurisdictional issue. No one entity, including the federal government, can meet this challenge alone: it will require an "all hands, all lands" approach. Across the board, the Commission focused on the need to invest in community and collaborative capacity to work together across jurisdictional boundaries, and to pair investments in the natural environment with investments in communities and in mitigating ignition sources in communities to prevent urban conflagrations.

The Commission also recognized that wildfire risk is not experienced or shared equally: catastrophic wildfires and the cascading disasters that can come from high-severity events, including post-fire floods and landslides, along with public health impacts, disproportionally impact underserved communities. The Commission recommended changes that increase equitable access to resources through improved technical assistance, capacity, and investments. For example, the Commission recommended structural changes to how programs operate, such as waiving match requirements and creating alternatives to the reimbursement funding structure, to help ensure Federal programs reach those who need them most.

Throughout the Commission's work, members highlighted the essential importance of our workforce. I thank Congress and members of this Committee for the work you have done to date to support wildland firefighter pay and benefits. The Commission made recommendations related to pay, benefits, housing, mental health, and the long-term well-being of our firefighters and the entire workforce engaged in mitigation, response and recovery. Congressional action on the policy proposals in the President's FY24 and FY25 budget requests would address a number of the Commission's recommendations, including making pay increases permanent to support our wildland firefighters.

The Commission's work was informed by and builds on USDA's Wildfire Crisis Strategy and existing leadership bodies, such as the Wildland Fire Leadership Council (WFLC), which advances the National Cohesive Wildland Fire Management Strategy for resilient landscapes, fire adapted communities, and safe and effective wildfire response; and the White House Wildfire Resilience Interagency Working Group (Wildfire IWG), which continues to pursue a collaborative all-of-government approach to wildfire risk reduction and resilience.

**Themes and Recommendations**

The Commission's charge was to provide recommendations to Congress to improve how our nation prepares for, responds to, and recovers from wildfire. The final recommendations received unanimous support from Commission members and were informed by public input and numerous subject-matter experts.

The Commission identified seven overarching themes that cut across its recommendations:

- *Urgent New Approaches*: Significant and urgent change is needed to address wildfire as a cross-cutting issue, including land management, the built environment, public health, and public safety.
- *Supporting Collaboration*: Better involvement of and support for collaboration and partners at every scale of society is necessary to be successful.
- *Shifting from Reactive to Proactive*: Pre-fire planning and mitigation, in both the built and natural environments, and proactive post fire recovery are as important as suppression and need substantial and sustained investment in funding and people.
- *Enabling Beneficial Fire*: Fire is both the challenge and an essential part of the solution – practitioners need to be able to implement prescribed fire, manage wildfire, and enable cultural burning to restore fire-adapted ecosystems and foster fire-adapted communities, with co-investments in smoke-ready communities to address public health impacts related to smoke.
- *Supporting and Expanding the Workforce*: Wildland firefighters must receive increased pay and health benefits; robust workforce investments are also needed for pre-fire risk mitigation and post-fire recovery; and agencies need new authorities, practices, and resources to support recruitment and retention, as well as housing affordability and availability.
- *Modernizing Tools for Informed Decision-Making*: Agencies need improved coordination and delivery of technology, modeling, research, and data management.
- *Investing in Resilience*: Increases in spending are needed across all aspects of wildfire mitigation and management to reduce costs in the long run.

The themes and recommendations span all phases of the wildfire challenge, from mitigation to response and recovery. The Commission also made recommendations for protecting public health; supporting a comprehensive workforce; integrating science, data, and technology; making sustainable and long-term investments; and improving coordination and collaboration.

The Commission recognized that addressing the wildfire crisis requires an urgent, societal approach, responding to the complexity of the problem with an integrated set of solutions. The Commission intended the recommendations to be seen as holistic and reinforcing of each other. The recommendations in the Commission's final report to Congress are not prioritized for this reason: the Commission urged an "all of the above" approach.

**Topic Highlights**

The Commission's report to Congress and its recommendations were informed by ongoing work across the Federal government, along with non-Federal partners. While Congress considers the Commission's recommendations, we are in action on the underlying issues identified as part of the Commission report, within our existing resources and authorities. I would like to highlight some of the areas where we are advancing work in the wildfire space, while laying the groundwork for further action on the Commission's recommendations.

*Supporting the Wildland Firefighter, Mitigation and Management Workforce (Recommendations 84-103)*

Ensuring that our workforce is paid what they deserve and receive the benefits they need is a top priority for USDA and the Administration. We appreciate Congress's recognition of the importance of investments in people on the front line. The supplemental pay authorized under the Bipartisan Infrastructure Law (BIL) has provided a lifeline for Federal wildland firefighters and is critical for Agency recruitment and retention. USDA, DOI, and OPM worked closely to institute a new firefighter pay series, also as provided for under BIL. The Wildland Firefighter Occupational series aims to clearly define the duties of wildland firefighters and provide them with a path to career advancement. BIL funding has enabled USDA and DOI to develop a Joint Wildland Firefighter Behavioral Health Program, which will increase access to services that build personal resiliency, improve mental preparedness and prevention, recognize the importance of self-care, and provide incident stress and post-traumatic stress support.

However, there is critical work still to be done. Federal wildland firefighters need the certainty that comes with a permanent pay solution, along with other important benefits. The lack of affordable and available housing is urgent and acute. Lack of housing contributes to instances of temporary homelessness for individuals in our workforce and poses a significant barrier to the recruitment, hiring, and retention of personnel. The Commission made a number of specific recommendations for Congressional action to support workforce pay, benefits, housing, mental and physical health, training, work-life balance, and long-term well-being.

Last year, the Administration submitted to Congress proposed legislation to comprehensively improve the pay of Federal wildland firefighters on a permanent basis, which is in line with Commission recommendations. The President's 2025 Budget carries forward this legislative proposal and again proposes significant reforms to increase the Nation's investments in the wildland fire management workforce. The cornerstone of these long-term reforms is a permanent increase in pay. Specifically, the Administration's legislative proposal would:

- Establish a special base rate salary table for wildland firefighters;
- Create a new premium pay category that provides some additional compensation tied to incident response;
- Establish a streamlined pay cap that provides waiver authority to the Secretary using specific criteria; and
- Provide permanent authorization to grant paid rest and recuperation leave to employees returning from certain multi-day incidents related to wildland fires.

We appreciate Congress's action last week to extend the BIL supplemental pay through the end of this Fiscal Year, and ongoing bipartisan work, including by members of this Committee, to address the need for a permanent pay solution, promote affordable housing, and make other investments in the health and well-being of our workforce.

*Investing in Strategic Fuels Work (Recommendations 17-23)*

The Wildfire Crisis Strategy aims to increase science-based fuels treatments by up to four times the previous treatment levels, especially in those areas most at risk. This strategy is ambitious and calls for treating up to 20 million additional acres of National Forest System lands, and working with partners, including colleagues at Interior, to treat up to 30 million additional acres on adjoining lands of multiple ownerships, while building a long-term maintenance plan. The intent for these treatments is to reduce the

wildfire risk to communities, critical infrastructure, municipal water sources, and natural resources, and to restore and maintain fire-adapted landscapes so they are more resilient in the face of climate change.

The Commission also identified the need to significantly expand fuels treatments. The BIL and the Inflation Reduction Act (IRA) provided an essential downpayment for this work, though additional, sustained investment from Congress will be needed to reach the goals outlined in the Strategy and described in the Commission's report. The critical BIL and IRA funding for fuels treatments allowed the Forest Service to invest in 21 high-priority landscapes across the west. Additional investments using annual appropriations, including Collaborative Forest Landscape Restoration Program (CFLRP) and Joint Chiefs' Landscape Restoration Partnership Program projects also allowed us to accomplish work in multiple states. Thanks to these investments, we completed treatments on an agency-record 4.4 million acres nationally in Fiscal Year (FY) 2023, including treating a record number of acres with prescribed fire. This work is beginning to reduce wildfire risk for some 550 communities, 2,500 miles of power lines, and 1,800 watersheds that supply drinking water to millions of Americans.

Secretary Vilsack recently announced $500 million in additional investments using BIL and IRA funding, including $400 million going to the 21 high-priority landscapes, and an additional $100 million to be allocated under a new Collaborative Wildfire Risk Reduction Program. This new program is inspired by the success of CFLRP and will allow us to expand work in high-risk wildfire areas outside the 21 priority landscapes. National forests will work with States, Tribes, underserved communities, and local partners in 24 qualifying states to propose projects under this new program.

Community investments are also an important part of the Wildfire Crisis Strategy. The first round of the new Community Wildfire Defense Grant (CWDG) program authorized in the BIL, which funds community wildfire planning and key implementation actions on non-Federal lands, had over 400 applicants, demonstrating the significant need and desire for action. USDA's Forest Service selected 100 applicants in the first round of CWDG awards. We expect to release our next round of funding in the next few months.

This work represents significant progress, but the Commission identified a number of recommendations so that we can sustain momentum and do this work at the scale needed. The Commission recommended sustained, long-term investment in fuel treatments, building on the downpayment provided through BIL and IRA. It highlighted opportunities to expand programs like CFLRP and the Joint Chiefs' Restoration Partnership Program. The Commission report identified barriers including internal staffing capacity, lack of markets for small-diameter wood, and high post-fire workloads from previous seasons. The Commission also recommended programs that support wood processing facilities, biomass utilization research and development, expanded targeted grazing, and other important actions that can play an important role in facilitating fuels treatments to reduce wildfire risk on our landscapes.

*Expanding Partnerships (See, for example, Recommendations 1, 12, 24-26, 30, 48-50, 58, 67-68, 103, 117, 126, 139)*

Partnerships are essential for advancing better stewardship of forests and grasslands across all ownerships and improving community resilience. The Forest Service has focused on collaboration and shared stewardship: for example, we have entered into more than 450 good neighbor agreements with Tribes, states, and counties to accomplish restoration work, including to address wildfire risk and resilience. Partnerships with States, Tribes, counties, non-profit organizations, industry, academic institutions, workforce development and conservation corps partners, and others have all been essential to delivering our work on the ground.

Interagency collaboration is also critical, and BIL funding has helped support interagency work. For example, the Forest Service has entered into an agreement with DOI's U.S. Fish and Wildlife Service (USFWS) to facilitate Endangered Species Act (ESA) consultation in wildfire crisis strategy landscapes. Additionally, USDA and DOI are leveraging BIL funds and collaborating through the Wildland Fire Leadership Council (WFLC) and the National Invasive Species Council (NISC), to promote the integration and coordination of wildland fire and invasive species management efforts.

Recognizing the importance of partnerships, collaboration, and working at scale across multiple jurisdictions, the Commission made more than 30 recommendations for systems, processes, funding, and capacity to enable partnerships for pre-fire mitigation, wildfire response, post-fire recovery, community engagement, ecosystem restoration, and more. These recommendations included building on and expanding existing authorities, for example, extending Good Neighbor Authority to additional Federal land management agencies, providing additional investment in the CFLRP, and creating new stand-alone authorities for USDA to enter into co-management agreements with Tribes.

The Commission recommended direct investments in community capacity and resilience, including creating a new Community Wildfire Risk Reduction Program to increase ignition resistance of the built environment. The Commission also recommended that Congress expand the ability for funding to be used across boundaries, for example, to accomplish slope stabilization and post-fire hazard mitigation; and recommended changes to improve response coordination across jurisdictions.

*Expanding Tribal Stewardship (See, for example, Recommendations 16, 28, 29, 30, 48, 49, 96 ,115, 119, 127, 128, 140, 141)*

USDA recognizes the importance of our government-to-government relationship with Tribes and is committed to implementing the Forest Service's Tribal Action Plan and the Joint Secretarial Order 3403 on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters, including through recognizing the importance of Indigenous Knowledge and advancing Tribal co-stewardship. Over the last two years, the Forest Service has used existing authorities, including the Tribal Forest Protection Act and the Good Neighbor Authority, to sign 180 co-stewardship agreements with Tribes and to significantly increase investment in those agreements, many of which address key land management issues related to fire.

In addition to work within USDA and the Forest Service, and building on the Commission's work, the WFLC, which USDA and DOI co-chair, has also been working to bring focus to the barriers and opportunities related to Indigenous fire stewardship and cultural burning; WFLC's most recent meeting highlighted this topic.

The Commission recognized that more needs to be done to ensure that the system is fully inclusive of and responsive to Tribal priorities, rights, resources, and needs. There are recommendations specific to Tribes in almost every major section of the report. For example, the Commission recommended expanding authorities for federal agencies to engage in co-management and co-stewardship, Tribes' participation in response systems, and Tribal prescribed and cultural burning programs; providing funding to enable this work; and improving ways for Tribes to share information without compromising confidentiality.

*Expanding Prescribed Fire (Recommendations 10-18, 41-44, 55, 57, 84)*

Prescribed fire has a critical role in mitigating wildfire impacts to both landscapes and communities and restoring fire-adapted ecosystems. In many places, it is the most economical, ecologically appropriate, and effective fuel treatment available. It can be combined with other forms of treatment to moderate

future fire behavior, benefit ecological health and resilience including for water and wildlife, and improve future public health outcomes. It is also an important tool for maintaining treatments over time.

The Forest Service has been working to expand prescribed fire. In June 2023, the Forest Service released the *National Prescribed Fire Resource Mobilization Strategy*, a new path for more efficient deployment of resources to assist with prescribed fires using similar processes to fire suppression. Last month, the Forest Service released the *Strategy to Expand Prescribed Fire Training in the West*, which will help to expand our prescribed fire workforce and ensure burn bosses can use the latest technology such as unmanned aircraft systems. The Forest Service has also acted to implement the recommendations in the National Prescribed Fire Learning Review, to support practitioners' ability to carry out prescribed burns safely and effectively.

This work is already starting to pay off. In Fiscal Year 2023, the agency treated 1.95 million acres with prescribed fire nationally, an all-time record for the Forest Service. Interagency conversations are occurring through WFLC on opportunities for cross-jurisdictional cooperation and resource ordering for prescribed fire. In addition, USDA and DOI recently updated and signed a memorandum of understanding (MOU) with the Environmental Protection Agency (EPA) and the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) with a shared commitment to enable the expansion of prescribed fire, alongside investments in public health.

Despite the importance of prescribed fire to reduce wildfire risk and restore fire-adapted ecosystems, the Commission identified a number of challenges, from the lack of hazard pay for prescribed fire activities and liability for burn practitioners and landowners, to coordinating resources during narrow burn windows. The Commission detailed numerous recommendations so that the system is supportive of workforce capacity and the health and safety of fire practitioners, neighboring landowners, and communities. The Commission's Aerial Equipment Strategy report also recommended improvements to expand use of Uncrewed Aerial Systems (UAS) along with greater availability of aviation resources for prescribed fire.

*Protecting Public Health (Recommendations 34-46)*

There are many public health intersections with the wildfire crisis, from the potential loss of life from catastrophic events to the well-being of our workforce, to impacts on water quality and availability, to the impacts of displacement and trauma after a catastrophic event. Air quality impacts from smoke are growing, as Americans across the country experienced last summer. These impacts disproportionally affect underserved communities.

One area of significant discussion within the Commission was how to align the dual and mutually reinforcing objectives of increasing prescribed fire as an investment in public health, while protecting communities and vulnerable populations from potential smoke impacts. The Commission identified a need for the EPA, USDA, and DOI to work more closely together, and within weeks of the release of the Commission's report, USDA, DOI, EPA, and CDC signed the Air Quality Coordination MOU. This MOU reflects the Commission's recognition of the critical need to address health impacts of smoke and invest in community health needs while enabling expansion of prescribed fire, establishing a joint strategy for achieving alignment.

Building on the work of the Commission's discussion of public health across all phases of the wildfire crisis and related recommendations, WFLC met last week at the CDC headquarters in Atlanta, Georgia, to focus on public health and how we can better connect the public health community and the wildfire community before, during, and after wildfire events.

The Commission's recommendations would support expanded capacity for this coordinated effort, and related data, research, outreach, and education tools, such as the AirNow map developed through a Forest Service and EPA partnership.

*Wildfire Science, Data, and Technology (Recommendations 104-119)*

The Forest Service is investing in wildfire science, data, and technology, including through a number of interagency pathways. However, the Commission recognized there are significant needs outside the scope of current funding and authorities. The Commission recommended creating a new entity, called the "Fire Environment Center" in the Commission's Report, to provide real-time, science-based, and data-rich scientific and technical analytic services, decision support, and predictive services to inform land and fuels management, community risk reduction, and fire management and response. With new funding, new authorities, and new governance, the intent for this entity would be to connect, but not centralize, data within the land management, fire management, and community risk reduction spaces. This would allow for data to be more timely, more easily shared, enable better collaboration with the private sector, and improve support for both federal and non-federal decision-makers. Additionally, the Aerial Equipment Strategy report recommends exploring use of technology to increase operational effectiveness. The Commission's recommendations would enable increased integration across agencies and better translation of science into practice.

While Congress considers these recommendations, agencies are working together through WFLC to host a Meeting Science and Technology Needs for Wildland Fire Risk and Resilience workshop in June 2024, focused on near-term opportunities to close urgent gaps and improve interoperability, build connections to reduce redundancy and leverage resources and expertise across federal and non-federal partners, and jointly define the strategic information, data, and tools needed to accelerate the development of new technologies. To build on these efforts, the Administration's FY 2025 budget includes a $5 million request, split evenly between the Forest Service and DOI, to establish a new joint office for wildfire science and technology.

*Post-fire Recovery (Recommendations 60-83)*

As we continue to see larger and more severe wildfires, we are also seeing a commensurate increase in the complexity and scale of post-fire recovery. Severe wildfires can leave behind dangerous conditions resulting in cascading disasters, such as flooding, debris flows and landslides, air and water quality impairment, and impaired conditions that increase the risk of future fires. These significant impacts cross communities, working forests and farms, and ecosystems. The Commission recognized that the watershed emergency, for example, can continue for years after a catastrophic event.

The White House Wildfire Resilience Interagency Working Group (Wildfire IWG), established in 2021 to facilitate an all-of-government response to fire, is working to improve coordination among federal agencies and integrate Federal post-fire programs within the framework of current funding and authorities, with a focus on making it easier for communities to navigate the many agencies and programs involved in post-fire recovery efforts.

While the Wildfire IWG looks to bring needed change and clarify to the Federal system, the Commission has determined that significant changes to authorization and funding are needed to fully enable a system matched to severe impacts we are seeing today. The Commission developed a comprehensive suite of recommendations to address post-fire impacts across agencies and scales and improve accessibility and timely deployment of aid. For example, the Commission recommends authorizing and funding the cross-jurisdictional assessment of burned areas. Current limitations make it difficult or impossible for agency

employees to assess and take actions on risk outside their jurisdiction, which can leave downstream communities, drinking water supplies, and critical infrastructure at risk from post-fire hazards like flooding.

The Commission also recognized the importance of reforestation, building on the investments provided in the BIL. For example, the report recommends establishing the nursery and seed capacity to support revegetation to restore post-fire landscapes. USDA has developed a national reforestation strategy that identifies existing needs and gaps and outlines actions to address the already significant backlog of wildfire driven reforestation needs.

*Equitable Access to Federal Resources (See, for example, Recommendations 53, 54, 79, 85, 142, 143, 144)*

USDA has taken several actions within our authority to ensure our programs are accessible to communities that need them most. In 2022, the Forest Service issued interim policy direction to waive or reduce non-statutory match requirements, including waiving non-statutory match requirements for agreements with Tribes. The Agency is also expanding consideration of all the valuable contributions a partner may bring to a mutual-interest relationship, some of which may have been overlooked or undervalued in the past. The Forest Service also recently launched a Community Navigators program to help remove barriers to Forest Service programs, providing assistance to communities to help identify funding opportunities, develop proposal ideas, provide guidance on completing applications, support financial and reporting compliance, and conduct training to help communities and organizations be better positioned to access federal funding, programs, and other resources in the future.

The Commission recommended expanding actions like these that increase accessibility of Federal programs. For example, the Commission recommended giving the Secretary the authority to waive existing statutory match requirements for post-fire recovery programs, recognizing that funding for recovery should not be limited to communities who have assets on hand to meet match requirements.

*Fire Funding Fix and Investing in Resilience (Recommendations 120-134)*

The Wildfire Suppression Operations Reserve Fund, better known as the "fire funding fix," was created in 2018 to end the practice of "fire borrowing" by creating a separate fund for emergency transfers to cover wildfire suppression cost overruns during severe fire seasons. This fix, championed by bipartisan Members of Congress, including many members of this Committee, has been vital for stabilizing the Forest Service budget, but it is set to expire in 2027. The Commission recommends making this fix permanent.

More broadly, the Commission stressed the urgency of addressing the growing wildfire crisis through adequate funding and authorities for agencies to continue building on the progress achieved through the historic BIL funding package. The Commission stated that the wildfire crisis needs to be funded, staffed, and acted upon like the national emergency it is, with sustained support from Congress to maintain the investments we've made while expanding our efforts before, during and after wildfires to reduce risks to people, communities and natural resources, and restore resilience.

**Need for Congressional Action**

USDA is committed to working for people and communities and with our partners towards a safer, more sustainable, and resilient future through the funding and authorities we have. With initial investments through BIL and IRA, we have already accomplished historic levels of fuels reduction through our Wildfire Crisis Strategy and provided a necessary boost for our wildland fire workforce. But there is more

work to do. The Commission recognized the need for long-term, sustained and societal investments and new authorities for transformational change, so that together we can realize a future in which we have a different experience of wildfire risk and resilience and can restore fire-adapted ecosystems.

National leaders will be meeting at the National Wildfire Summit on March 13th to discuss how to continue to move this work forward. While the Commission is coming to a close, USDA, our fellow commission members, and the interagency community stand ready to work with Congress on carefully considering all 148 recommendations included in the Commission's final report.

**Conclusion**

The Wildland Fire Mitigation and Management Commission was created to examine what actions Congress can take to change the trajectory of growing catastrophic wildfire. The Commission answered that charge. The Commission's work represents one of the most comprehensive reviews of America's wildland fire management framework to date.

The Commission's recommendations cover every phase of the challenge, from pre-fire mitigation, to response, to long-term recovery. They address the urgent needs of and for a comprehensive workforce. They address the need to integrate public health and invest in community capacity and preparedness. They recognize the importance of working collaboratively across jurisdictional boundaries and at a landscape scale, including by working with States, counties and local governments and by enabling the expansion of Tribal co-stewardship and co-management. And they cover the systems, structures, relationships, research, tools, and support needed for this work to be effective and maintained. Every recommendation was developed with consensus from members.

We need healthy landscapes; we need healthy and resilient communities that are built with fire in mind; and we need systems for recovery that don't leave anyone behind. While the wildfire challenge can at times seem insurmountable, there is a path forward to a better future where wildfires do not become catastrophes. The Commission designed their reports and recommendations as a map to that more secure future.

Thank you for the opportunity to testify today about the Commission's recommendations. We appreciate Congress' support for our wildland fire workforce and programs and look forward to continuing to work with you on a path to resilience. This concludes my statement. I welcome any questions from the Committee.

Senator BARRASSO [presiding]. Thanks so much for your testimony.

Ms. Mooney.

**STATEMENT OF JOAN MOONEY, PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR POLICY, MANAGEMENT, AND BUDGET, U.S. DEPARTMENT OF THE INTERIOR**

Ms. MOONEY. Chairman Manchin, Ranking Member Barrasso, and members of the Committee, we appreciate the opportunity to testify today on the Wildland Fire Mitigation and Management Commission's report to Congress and the Department of the Interior's ongoing efforts to address the Commission's recommendations. Thank you for your leadership in establishing the Commission with its collaborative approach to addressing federal wildland fire management policy. I am grateful for my fellow co-chair designees, Commission members, subject matter experts, and others who contributed to this report.

The wildfire crisis, as we know, is urgent, severe, and far-reaching. Climate change is leading to increasingly intense and destructive wildfires that profoundly impact our natural landscapes, communities, and public health. Reminders of the immediate need to address this crisis are all too frequent, from the recent fires in Texas and Hawaii to the smoky skies experienced last summer. The Commission produced two consensus-based reports for Congress: the first, on the nation's aviation equipment strategy, and the second provided comprehensive recommendations for our wildfire systems. Interior fully supports the Commission's recommendations. There is significant alignment between those recommendations and the President's 2025 budget.

The Aviation Equipment Strategy Report includes 19 recommendations on the nation's aviation needs through 2030. Interior continues to examine the potential of adapting contracting terms to address aircraft availability, cost savings, and industry preferences. We support expanded use of uncrewed aerial systems, or drones, which provide considerable strategic and safety benefits to our wildland firefighters. Our 2025 budget request includes increases for additional procurement and staff. The final report centers on several interrelated themes that unite the recommendations and represent a generational shift in wildland fire management. None of these recommendations can be completed by a single entity, and need to be addressed collectively by all the partners.

The first and second themes urge new approaches by shifting toward more comprehensive systems and structures that are addressing the interrelationships between communities and landscapes and facilitating collaborative efforts. These are the foundation for the actions Interior is taking to advance the recommendations. The third and fourth themes encourage a shift from a more reactive to proactive management and dramatically increasing the use of beneficial fire. Interior is leveraging BIL funding to increase the pace and scale of fuels management and treatments and rehabilitation of lands damaged by wildfires. Last year, we increased our hazardous fuel treatments by approximately 30 percent. In November, Interior signed a memorandum of understanding with the USDA, Environmental Protection Agency, and Centers for Disease Control

and Prevention, to protect communities from the impacts of wildfire smoke, while promoting prescribed fire, a major step forward toward greater coordination and collaboration among agencies. Tribes are well-positioned to coordinate and implement the increased use of beneficial fire. Interior continues to work with tribal nations to promote co-stewardship of federal lands and invest in building tribal capacity.

The fifth and perhaps the most important theme highlights the needs of our workforce. To improve recruitment and retention, the President's 2025 budget includes funding for new firefighter hires and requests increases for firefighter pay, a joint mental health program, and housing. It also includes legislative proposals that were in last year's budget that include establishment of a base salary table for wildland firefighters and a new premium pay category. The sixth theme stresses the importance of modernizing tools for informed decision-making across all phases of fire. The Joint Fire Science Program is supporting efforts to identify and prioritize science and technology gaps to strategically accelerate adoption of new technologies. The seventh theme stresses the urgency of treating the wildfire crisis like the national emergency that it is. The recommendations emphasize the need for increased, sustained, and predictable funding that keeps pace with the escalating crisis and incentivized investments.

Collectively, these recommendations serve as a strategic roadmap to guide our efforts in reducing wildfire risk. We appreciate your continued support in addressing critical wildland fire mitigation and management issues. Thank you.

[The prepared statement of Ms. Mooney follows:]

**Statement of**
**Joan Mooney**
**Principal Deputy Assistant Secretary**
**for**
**Policy, Management and Budget**
**U.S. Department of the Interior**

**Senate Committee on Energy and Natural Resources**
**Hearing to Examine the Wildland Fire Mitigation and Management Commission Final Reports to Congress**

**March 12, 2024**

Chairman Manchin, Ranking Member Barrasso, and members of the Committee, thank you for the opportunity to provide testimony on the Wildland Fire Mitigation and Management Commission's (Commission) Reports to Congress and the Department of the Interior's (Interior) ongoing efforts to address the Commission's recommendations. We appreciate the Committee's interest in the Commission's reports and Interior's collaborative efforts to improve Federal wildland fire management policy.

**Background**

The wildfire crisis in the United States is urgent, severe, and far reaching. Across the globe, climate change is leading to increasingly destructive wildfires that are posing threats to communities and ecosystems. Reminders of the urgent need to address this crisis are all too frequent, from the recent fires in Texas and Hawai'i, to the smokey skies many of us experienced last summer. These increasingly intense and destructive wildfires have profound impacts on our natural landscapes, communities, and public health. They also have fiscal consequences, such impacts on local economies and costs associated with post-wildfire rehabilitation and community recovery. Wildfire is also becoming an emergent threat in areas that have little or no history of wildfire and during times of the year when landscapes typically have not burned. Wildfire frequency, size, and severity is projected to continue to increase along with the multitude of associated impacts, from smoke emissions to postfire recovery. The Fifth National Climate Assessment underscores that these trends are expected to continue.

In the face of this national crisis, Congress took action to pass the Infrastructure Investment and Jobs Act (Bipartisan Infrastructure Law or BIL), which supports strategic efforts to better understand this new dynamic, fund mitigation and restoration efforts, and develop a new vision for Federal wildland fire management.The BIL provides a once-in-a-generation investment in wildland fire management that is helping to address the climate crisis and improve the wildfire resiliency of our nation's lands. The investments support the implementation of the Interior's "Five Year Monitoring, Maintenance, and Treatment Plan," which provides a roadmap for addressing wildfire risk and building resilience on Interior-managed and Tribal lands. The overall strategy identified by Interior builds on the National Cohesive Wildland Fire Management Strategy's vision of safely and effectively extinguishing fire, when needed; using fire where allowable; managing natural resources; and, as a nation, living with wildland fire.

In addition to investing nearly $1.5 billion in wildfire risk reduction through 2026, the BIL also identified a need for new policy solutions to address the growing wildfire crisis. To formalize this effort, the BIL authorized the creation of the Wildland Fire Mitigation and Management Commission (Commission). The Commission's work builds on existing interagency efforts, such as the Wildland Fire Leadership Council and the White House Wildfire Resilience Interagency Working Group, which continue to pursue a collaborative all-of-government approach to wildfire risk reduction and resilience.

As envisioned by the BIL, the Commission was deliberately created as a nonpartisan body, including representatives from Federal agencies; state, local, and Tribal governments; non-governmental entities; academia; and the private sector. In addition, Commission members represent a multitude of interests, lived experiences, geographical areas, and communities of practice.

The Commission is co-chaired by the Secretaries of the Interior and Agriculture and the Administrator of the Federal Emergency Management Agency. The 50-member Commission possesses a broad range of expertise in wildfire, including operational firefighting, prescribed fire, cultural burning, pre-fire mitigation, public health, post-fire recovery, and more.

The Commission was charged with making recommendations to improve Federal wildland fire management policies related to the prevention, mitigation, suppression, and management of wildland fires and the rehabilitation of land in the United States devastated by wildland fires. Specifically, the Commission was charged with developing two reports for Congress: the first report outlined a strategy to meet aerial firefighting equipment needs through 2030, and a second report provided a comprehensive set of recommendations to help reform Federal wildland fire management policy.

The Commission urges an "all of the above" approach and for supporters to view the two reports released by the Commission as a package of recommendations that should be advanced as a whole. The scale of the problem requires broad, integrated solutions like those recommended in the final report.

**The Wildland Fire Mitigation and Management Commission's Aviation Equipment Strategy Report to Congress**

As wildfire seasons increase in duration and intensity, there is a compelling need to reexamine existing approaches to aviation fleet procurement, use, composition, and quantity. Aerial resource management and coordination is complex, involving multiple agencies operating at multiple levels of government, each with their own programs, authorities, equipment, and scopes of work. While the statutory charge of the Commission included looking out to the year 2030, concepts like greater cooperation and coordination between the various parties that make up the national interagency wildland fire aviation community is a critical and perennial goal, and one worth keeping as a guiding principle well past 2030.

The "Aviation Equipment Strategy Report" focused on the nation's aviation needs and was submitted to Congress in January 2023. The Commission's 19 recommendations in the aviation report address multiple broad themes, including:

(1) The need for the development of new or updated aviation resource benchmarks and national procurement models and the need for greater coordination with partners in those efforts.
(2) Improvements to appropriations, contracting, staffing, and military interoperability to improve the use and availability of new and existing resources.
(3) Improvements and limitations to the military surplus process and equipment.
(4) Additional considerations, including aviation resource use in beneficial fire and the emerging importance of Uncrewed Aerial Systems (UAS) – also known as "drones."

In response to the recommendations in the report, Interior has made progress in its aviation services. First, Interior recognizes the potential benefits of longer exclusive-use aviation contract periods and continues to evaluate extended contract term feasibility. There are some limitations with extending the length of aviation contracts, but the potential benefits of longer contract periods include increased assurances of aircraft availability to the Federal government, certainty for industry, and potential long-term savings. We continue to examine the potential impacts of adapting our contracting terms.

In general, Interior does very limited aircraft procurement; however, we acknowledge the many challenges of using former military aircraft due to their age and the costly conversion requirements to meet Federal wildland fire needs. Finally, we are supportive of the expanded use of UAS in the wildland fire space. The President's 2025 Budget includes funding increases for additional UAS program enhancement. UAS are significantly beneficial in aiding wildfire response activities and mitigation work and they are an increasingly important safety tool for firefighters.

**The Wildland Fire Mitigation and Management Commission's Final Report to Congress**

The Commission was also charged with the ambitious task of creating recommendations that address nearly every facet of wildland fire management. Reflecting the urgency of the wildfire crisis, the Commission had one year to complete this work. The Commission's final report, which was submitted to Congress on September 27, 2023, reflects one of the most sweeping and comprehensive reviews of the nation's wildland fire management framework to date and contains 148 recommended actions.

The Commission identified seven overarching themes that underpin and unite the body's recommendations. None of these underlying tasks or recommendations can be completed by a single entity and need to be addressed collectively by the interagency wildland fire management community. Each of the Commission's specific recommendations reflect one or more of these themes, demonstrating the interrelated nature of the Commission's work and wildfire issues at large, including:

(1) The need for urgent new approaches to address the wildfire crisis.
(2) Supporting collaboration to improve partner involvement at every scale.
(3) Shifting from reactive to proactive in planning for, mitigating, and recovering from fire.
(4) Enabling beneficial fire to reduce the risk of catastrophic wildfire.
(5) Supporting and expanding the workforce to hire and retain the wildland firefighting staff needed to address the crisis.

(6) Modernizing approaches for informed decision-making to better leverage available technology and information.
(7) Investing in resilience through increased spending now to reduce costs in the long run.

Many of the recommendations that are included in the Commission's report are actions that Interior is currently undertaking and are fundamental to the administration of Interior's Wildland Fire Management program. However, to reach the broad desired outcomes that are envisioned by the Commission, this work needs to be scaled-up and addressed through a unified and collaborative process with all partners. This can be achieved in part by leveraging the support and partnerships that are currently in place, particularly through collaborative organizations such as the Wildland Fire Leadership Council (WFLC), capitalizing on existing agreements and memoranda of understanding, and working across boundaries to carry out meaningful change.

The following sections highlight some of Interior's ongoing and planned work and strategies that are consistent with the Commission's recommendations.

***Commission Theme 1. Urgent New Approaches***

The Commission recommends a need for a shift toward systems and structures that are more comprehensive and that better address the interrelationships between communities and landscapes across pre-fire mitigation, response, and post-fire recovery efforts. This includes greater integration between wildfire-related programs, procedures, policies, and workforces and incorporation of issues and sectors that have traditionally been set apart from the wildland fire discourse or handled disparately.

The "National Cohesive Wildland Fire Management Strategy," originally developed in 2014 as a national collaborative vision for wildland fire management strategy, was updated in 2023 to better reflect today's wildland fire management challenges. The updated strategy considers a broader approach beyond individual, organizational, and historical silos and promotes the need to collectively define and understand risk, set landscape-level and community-wide priorities, share and co-manage risk across boundaries and jurisdictions, accept some short-term risk for long-term benefit, and collectively invest in outcome-based approaches and activities rather than outputs.

In alignment with Commission recommendations, Interior supports the principles of the Cohesive Strategy as a national framework for living with wildfire. The Commission recommends that the Wildland Fire Leadership Council (WFLC), of which Interior is a co-chair, serve as the official custodian of the Cohesive Strategy to drive greater alignment across organizations and sectors. These efforts will help fuel collaboration and help guide how we plan, implement, and evaluate work in wildfire across the entire wildland fire management community going forward.

***Commission Theme 2. Supporting Collaboration***

As noted previously, wildfire mitigation and management affects, involves, and depends on a wide range of entities well beyond Federal agencies, to include states, Tribes, local governments, the private sector, non-governmental organizations, and academia. The Commission highlighted

the need for greater support for partnership programs, collaborative groups, and collaborative wildfire planning and management initiatives.

Funding provided by the BIL is facilitating these efforts. For example, the Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), Bureau of Reclamation (BOR), National Park Service (NPS), and the U.S. Fish and Wildlife Service (USFWS) are leveraging funding to facilitate collaborative efforts with partners across landscapes to increase the pace and scale of fuels management treatments and to rehabilitate lands damaged by wildfires on landscape-scale approaches. The U.S. Geological Survey (USGS) is conducting research into priority wildland issues before and during fires, including the impacts of climate change on wildfire, fuels management, wildfire risk and post-fire recovery.

Through BIL, Interior received $10 million for an agreement with the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) for improvements to satellite-based detection and monitoring of wildfire starts in all areas in which Interior has statutory responsibility for wildland fire protection and prevention. The agreement will also support weather forecasting and facilitate efforts to increase warning times for incident responders and those communities that are threatened by natural disasters, like wildfire. The two agencies plan to complete the agreement this year. USDA received a similar BIL appropriation for improving satellite-based detection and monitoring

The interagency wildland fire management community is using the Commission's roadmap to collaborate with additional Federal partners beyond the traditional land management agencies to leverage their knowledge and expertise to help address important wildland fire management policy issues. For example, in December 2022, the Department of Defense joined the National Wildfire Coordinating Group (NWCG), which provides national leadership to enable coordinated wildland fire operations among Federal, state, local, Tribal, and territorial partners. In February 2024, NASA joined the NWCG in an effort to further increase interagency collaborative efforts. NASA's technological capabilities will allow the NWCG to leverage the combined contributions of research and development, data gathering and distribution, and technology transfer from three NASA mission directorates in the areas of earth science, space technologies, and aeronautics.

Interior has also set aside more than $5 million in BIL funding to support cross-boundary implementation with the USDA Forest Service to help reduce wildfire risk. This funding supports the Commission's recommendation to increase the flexibility of Federal funds to move across boundaries by implementing the first of its kind national mechanism to share resources across the Federal land management agencies for these purposes.

***Commission Theme 3. Shifting from Reactive to Proactive***

Wildfires do not respect jurisdictional boundaries: a fire that starts on one type of land ownership may—and often does—spread to others. This means that managing wildfire risk requires an "all-hands, all lands," or cross-boundary, approach to prioritization, planning, and implementation of risk reduction treatments. The Commission highlights the need for greater flexibility of Federal funds to be used across jurisdictional boundaries, increased use of cross-boundary authorities, and cross-boundary restoration work.

As a byproduct of the additional funding provided by the BIL, Interior has increased its hazardous fuels treatments by approximately 20 percent from 2021 to 2022 and 30 percent from 2022 to 2023. By increasing fuels treatments, Interior is taking consequential steps to mitigate its wildfire management challenges and advance wildfire resiliency, improve firefighter and public safety, protect communities, and boost local economies. Our goal for this year is close to two million acres of treatments and to improve our collaborative mitigation efforts.

In order to achieve this objective, the President's 2025 Budget includes a legislative proposal to permit the use of Fuels Management and Burned Area Rehabilitation program funds for work on non-Federal or non-tribal lands that are not adjacent to Federal lands but where work benefits resources on Federal lands. Current authorities limit the use of these funds for work on Interior-administered lands and adjacent non-Federal or non-tribal lands where the work benefits resources on Federal lands. This limitation constrains cross-jurisdictional landscape treatments and post-wildfire recovery activities. Expanding the authority as described above will help promote coordinated multi-jurisdictional wildfire risk-reduction and recovery efforts, while simultaneously expanding opportunities to implement the Cohesive Strategy in alignment with the Commission's recommendations.

As noted by the Commission, proactive planning and mitigation actions before a wildfire can significantly reduce impacts and costs in the postfire period. This front-end work can also lay the groundwork for more effective postfire response, reduced postfire impacts, and generally streamline the provision of technical support and other resources after a wildfire. The Commission recommends the creation of organizational and financial structures to better integrate national response to pre- and postfire impacts across agencies and to scale-up the accessibility and timely deployment of support. To reduce complexities and increase resources for pre- and postfire priorities, Interior is working with partners across the interagency wildland fire community through WFLC to develop a coordinated agreement that will institutionalize these efforts.

***Commission Theme 4. Enabling Beneficial Fire***

The Commission stressed the importance of dramatically increasing the amount of beneficial fire on our landscapes as an essential component to addressing the wildfire crisis. Wildfire is both a natural and inevitable process, and the use of fire is vital to both fire-adapted ecosystems and fire-adapted communities. Fires serve to reduce flammable materials that fuel undesirable high-severity wildfires, thus mitigating risk to communities and fire-adapted landscapes.

Congress has repeatedly recognized the importance of cross-jurisdictional and landscape scale management in laws such as the Good Neighbor Authority and the Tribal Forest Protection Act. Indigenous stewardship is necessary to achieve wildfire resilience and ecosystem restoration goals. Tribes are well positioned to coordinate and implement the increased use of beneficial fire, which includes prescribed burning, cultural burning, and wildfire managed for resource benefit. Interior works with Tribes under the Indian Self-Determination and Education Assistance Act to deliver co-stewardship on the land. In recognition of the importance of increased Tribal capacity to allow for more equitable engagement of Tribes, Interior has invested in building Tribal capacity for co-management in support of Commission recommendations.

However, expanding the use of beneficial fire faces many challenges. A key complicating factor is that all forms of fire, including the use of beneficial fire, produce smoke that can be harmful to human health. Like wildfires, smoke does not recognize jurisdictional boundaries. This causes tensions between land management objectives that reduce wildfire risk to communities, and public health objectives that reduce smoke exposure to communities. The GAO's March 2023 report on "Wildfire Smoke: Opportunities to Strengthen Federal Efforts to Manage Growing Risks" provided several recommendations for better collaboration, including for Federal agencies to align air quality and land management goals for wildfire risk mitigation.

Using the GAO report and the Commission's work as a guide, in November 2023, Interior signed a memorandum of understanding (MOU) with the USDA, the Environmental Protection Agency, and the Centers for Disease Control and Prevention for wildland fire and air quality coordination. The MOU facilitates Federal agency efforts to further their joint work to protect communities from the impacts of wildfire smoke, while promoting land management practices that reduce the risk of large, severe wildfires. This MOU represents a major step forward toward the Commission's vision of greater coordination and collaboration among agencies working on wildfire.

***Commission Theme 5. Supporting and Expanding the Workforce***

As recognized by the Commission, the demands on the wildland fire workforce continue to grow as wildfire is now a year-round occurrence and the increased complexity of fires is demanding more active management. Federal and Tribal wildland fire wages have not kept pace with some state governments and other industry competitors. Housing costs have also risen rapidly across the West; in certain geographic areas many wildland fire personnel may find it difficult to afford rent or to purchase a home on their current wages. These issues are compounding wildland fire workforce challenges, including the ability to recruit and retain employees.

Interior received $120 million through BIL to provide temporary supplemental payments to wildland firefighters, but this funding was exhausted by the end of FY 2023. DOI is continuing to provide these temporary supplemental payments through FY 2024 using regular appropriations pursuant to limited authority provided by Congress, but the specter of a pay cliff will return in FY 2025 without further Congressional action. Only a permanent pay fix can alleviate the significant financial uncertainty that wildland firefighters increasingly face with each extension of the temporary supplemental payments.

The Administration continues to urge Congress to authorize and fund permanent and comprehensive pay reform, as proposed in the President's 2025 Budget. The Budget also includes funding for Interior to hire additional wildland firefighters, enhance mental health and wellbeing services, and improve government housing. As the Department requires new authorities to fully implement the proposed workforce reforms, the Budget also carries forward the legislative proposal that accompanied the President's 2024 Budget, which would:

(1) Establish a special base rate salary table for wildland firefighters;
(2) Create a new premium pay category tied to incident response;
(3) Establish a streamlined pay cap that provides waiver authority to the Secretary using specific criteria; and

(4) Provide permanent authorization to grant paid rest and recuperation leave to employees returning from certain multi-day incidents related to wildland fires.

Implementation of the full suite of workforce reforms proposed in the Budget would help address long-standing recruitment and retention challenges and further the Administration's commitment to build a more robust and resilient wildland firefighting workforce.

Training for Interior's firefighters remains a high priority—BIA, BLM, NPS and USFWS are working collaboratively to increase Interior's support for the National Prescribed Fire Training Center and the interagency Fuels Academy, to enhance training efforts with a focus on Interior administered lands. Further, Interior has used BIL funding to develop firefighter internships. Interior recognizes the valuable training and experience gained through building a skilled workforce that will contribute to Interior's efforts to reduce wildfire risk to communities.

Using BIL funding and regular appropriations, Interior and the USDA Forest Service, have initiated work to establish a program to address firefighter mental health needs, including post-traumatic stress disorder care, for permanent, temporary, seasonal, and year-round wildland firefighters. By streamlining and expanding existing mental health programs, Interior is working to better support firefighter resilience, improve mental preparedness, and address the effects from cumulative stress. This initiative will create a bridge between existing programs, consider additional prevention and training program needs, enhance Critical Incident Stress Management capacity, and further develop early intervention trauma support services.

***Commission Theme 6. Modernizing Approaches for Informed Decision-Making***

A high priority Commission focal area, that is also a stated goal of the MOU for wildland fire and air quality coordination, is the translation of science into practice, or the use of applied science, to inform decision-making across all phases of fire.

WFLC and the National Science and Technology Council, Subcommittee on Disaster Reduction are co-hosting a workshop in June 2024. The USGS and USDA Forest Service are working with other key fire science organizations to plan and host the workshop, including the Joint Fire Science Program, National Science Foundation, NASA, NOAA and others. The workshop, titled "Meeting Science and Technology Needs for Wildland Fire Risk and Resilience," will bring together numerous fire science and management organizations to discuss and recommend potential actions to address science, data and technology gaps and needs.

Further, the Commission noted that various predictive services and decision support functions are fragmented across multiple agencies and suffer from both limited interoperability and dissipated priority-setting and purchasing power. The Commission believes that predictive services and decision support functions would greatly benefit from increased integration. Last year, the President's Council of Advisors on Science and Technology (PCAST) released a report on wildland firefighting which also gives reference to improved integration and modernizing technologies to enhance situational awareness and accelerating the improvement of predictive modeling tools by expanding research communities.

To address emerging opportunities and challenges in this space, the President's 2025 Budget requests a total of $5 million, split evenly between Interior and the USDA Forest Service, for the establishment of a new joint office for wildfire science and technology. The Joint Office will lead the strategic development, deployment, and sustainment of technology, science, and data to be used to improve safety, effectiveness, and cost efficiency of U.S. wildland fire management. It will be responsible for facilitating the availability of sound science-based data, products, and technology to support our interagency wildland fire management partners.

Interior is also using BIL funds to increase wildfire intelligence and provide real-time fire environment analysis and decision support through the addition of new FTEs. Interior will use three term positions, one hosted by the USFWS and two hosted by the NPS, to support Interior's ability to use data acquired by sensors, such as cameras, smoke monitors, remote automatic weather stations (RAWS), and others across our shared boundaries.

One of the recommendations made in the Final Report to enhance the use of science is to fund and support Innovation Landscape Areas. USGS in partnership with the Department of Defense, the USFWS, USDA Forest Service, and BIA have initiated pilot innovation landscape networks in the Southwestern and Southeastern U.S. that bring together researchers and managers to develop, test, and apply new science in an adaptive management framework.

***Commission Theme 7. Investing in Resilience***

The Commission stressed the urgency of addressing the wildfire crisis through adequate funding and authorities for agencies to continue building on the progress achieved through the historic BIL funding package. In short, the Commission stated that the wildfire crisis needs to be funded, staffed, and acted upon like the national emergency that it is. To do less would resign ourselves to accepting incredible costs and losses as a result of future catastrophic events. The Commission's recommendations emphasize the need for Federal funding that is sustained and predictable, keeps pace with the escalating crisis, incentivizes investments across all levels of government, and includes a focus on the mitigation of risk and impacts both before and after wildfire.

For Interior to continue advancing and building on the collaborative progress that we've outlined in this testimony, we will require sustained support from Congress to maintain the investments we've made while expanding our efforts to reduce the risk of catastrophic wildfires.

**Conclusion**

Thank you for the opportunity to share feedback on the Commission Reports and Interior's ongoing efforts to address the recommendations in both reports. The Commission's reports serve as foundational analytical tools to guide our efforts and drive our successes in managing and reducing wildfire risk in the United States. We appreciate Congress' support and look forward to continuing to work with you as we address critical wildland fire management issues.

This concludes my statement. I welcome any questions from the Committee.

Senator BARRASSO. Thank you so much for your testimony.
Mr. Desautel.

**STATEMENT OF CODY DESAUTEL, EXECUTIVE DIRECTOR, CONFEDERATED TRIBES OF THE COLVILLE RESERVATION**

Mr. DESAUTEL. Good morning, Chairman Manchin, Ranking Member Barrasso, and members of the Committee. I am Cody Desautel, and I am the Executive Director for the Colville Tribe in Washington State. I also serve on the Wildland Fire Mitigation and Management Commission, representing forestry and industry. I am pleased to have the opportunity to speak with you today about the Commission.

We have felt the impacts of wildfire acutely at Colville. Since 2015, the Colville Tribe has seen more than 700,000 acres of our 1.4-million-acre reservation burn, which includes the loss of approximately a half a billion dollars' worth of timber. It would have been worth more a few years ago when you got the quote. In response to wildfire-related challenges like these, Congress established the Wildfire Mitigation and Management Commission, which was charged with undertaking a comprehensive review of the wildland fire system. The two Commission reports are cross-cutting, expansive, and take a holistic approach to addressing the challenges we collectively face with respect to wildfire through its 167 recommendations. Today, I will focus my comments on three specific areas of the Commission's recommendations: wood products, tribal authorities, and wildfire response, including aviation.

Wood products: The wood processing industry is a critical tool to help accomplish forest management goals and reduce wildfire risk. Inconsistent wood supply from federal land, along with wildfire losses, are threatening the ability to maintain existing wood processing facilities and hindering the needed investments to rebuild new infrastructure. The Commission included a recommendation for long-term federal investment and commitment to address landscape-level treatment across all boundaries where the highest risk exists. Congress must also incentivize the adoption of new technologies and processing systems to produce value-added and innovative wood products. The Commission identified a number of existing grant programs as areas for potential support. The Commission recognized the need to support these innovations from the initial pilot phase through commercial application. Congress should also commission a GAO review of existing programs and authorities that enable or inhibit cross-boundary work. New or modified authorities will be needed to achieve our goals.

Tribal authorities: Coordination and consultation with tribes is an important first step in co-management. Congress should reinforce federal agency requirements for coordination with tribes. The Federal Land Policy and Management Act requires the Secretary of Agriculture to coordinate land use plans in the National Forest System with those of Indian tribes by considering site-specific tribal forest management, indigenous knowledge, and planning approaches. Other recommendations from the Commission include requiring the Bureau of Indian Affairs to acknowledge that federally recognized tribes may develop fire programs under approved tribal regulations and policies, and Congress should provide the U.S. De-

partment of Agriculture stand-alone authorities to enter into co-management agreements with tribes that would allow the Forest Service to share decision-making authority with tribes for management of Forest Service programs or activities.

Finally, many tribes are well-positioned and resourced to enter into co-management with federal agencies to reduce wildfire risk. However, additional support is needed for some tribes to support workforce capacity that enables beneficial fire practices. By providing federal agencies with the authority to partner, and providing tribes with additional resources, Congress can bring new capacity to a system that has struggled to develop the necessary workforce. Indian tribes across the country stand ready to bring our indigenous knowledge and modern expertise to federal forest management.

Wildfire response: A key theme of the recommendations for the wildfire response is improved collaboration between the various federal, state, tribal, and local entities that play a role in wildfire response. With respect to tribes, the Commission saw a need to recognize them as sovereign—on the same footing as states. Any policy modifications should make sure to advance parity and equity for tribes in compacting and funding processes. The Commission found that the current wildland fire aviation strategy is based on a seasonal model, which does not account for longer fire seasons and competing seasonal geographic needs that did not exist in the past. Use of new technology, including drones, also needs to be incorporated in the strategies moving forward.

To help develop a new strategy to meet the aviation needs through 2030, the Commission recommends Congress establish a task force composed of a cross representative group of fire organizations to explore the feasibility of a regionalized approach to "standards of cover." This would be a collaborative and inclusive process with all the impacted and relevant entities. The task force should consider costs and be open to exploring the trade-offs of different ownership models. The Commission was also charged with evaluating the use of Department of Defense surplus. We found that adoption of military surplus aircraft by agencies or private contractors carries risks and costs that are often overlooked, and that the federal model is structured around contractors. Some states and contractors may choose to use surplus equipment, so it should be more readily available through a transparent process.

Thank you.

[The prepared statement of Mr. Desautel follows:]

**Testimony of Cody Desautel**
**Executive Director, Confederated Tribes of the Colville Reservation**
**President, Intertribal Timber Council**
**&**
**Member of the Wildland Fire Mitigation and Management Commission**
**Before the Senate Committee on Energy and Natural Resources**
**March 12, 2024**

Good morning Chairman Manchin, Ranking Member Barrasso and members of the Committee. I am Cody Desautel, Executive Director for the Confederated Tribes of the Colville Reservation in Washington State. I also serve on the Wildland Mitigation and Management Commission in a seat held to represent forestry and industry. I'm pleased to have the opportunity to speak to you today about the Commission, the rising risk of wildfire, and the steps we can take to address it.

While I now serve as the Executive Director for the Confederated Tribes of the Colville Reservation, my professional background is in forestry. Over the course of my career, I have worked as an Inventory Forester and Natural Resource Officer, Forest Engineer, Forester, Fuels Planner, and Natural Resources Director. I have a Bachelor of Science Degree in Environmental Science and a Master's Degree in Indian Law. I also currently serve as President of the Intertribal Timber Council (ITC) in addition to my role with the Confederated Tribes of the Colville. I have had to confront the risk of wildfire in all of these roles, and it is this expertise for which I was selected for the Commission. I am also a Tribal member and have seen the impacts that wildfire, the exclusion of native stewardship, and impacts to ancestral lands have on Indian communities.

Throughout the last decade, we have felt the impacts of wildfire acutely in Colville. The 2015 North Star and Tunk Block fires burned over 250,000 acres on the Colville Reservation.[1] Since 2015, the Colville Tribe has seen more than 700,000 acres of our 1.4-million-acre reservation burn, which also caused the loss of one billion board feet of our timber burn, with a current delivered log value of approximately $500,000,000. Yet wildfire impacts extend far beyond the market value of wood products.

Indian people suffer most from the consequences of catastrophic wildfire. When fires burn, we breathe the smoke. We suffer the loss of wildlife habitat. Our water quality is impacted, our fisheries damaged. Fires from federal lands burn our own lands, destroy our timber resources and impact sources of tribal revenue for generations. The risk of wildfire to Indian lands is compounded by the thousands of miles of shared boundary with federal agencies, primarily the U.S. Forest Service and Bureau of Land Management. There are countless examples of wildfire spilling over from federal lands onto tribal forests, causing significant economic and ecological losses. These fires regularly pose a risk to human life on Indian lands and have resulted in fatalities.

It was in response to these, and countless other, wildfire-related challenges, Congress established the Wildland Fire Mitigation and Management Commission (hereafter "the Commission") in the 2021 Infrastructure Investment and Jobs Act (Pub.L. No. 117-58). The Commission was charged

[1] https://www.bia.gov/news/colville-reservation-north-nespelem-fuels-treatment

with undertaking a comprehensive review of the wildland fire mitigation and management system and to deliver two reports back to you, Congress, for swift action. We delivered these reports, the Aerial Equipment Strategy Report and the final report, in January and September of 2023, respectively. These reports are cross-cutting and expansive and take a holistic approach to addressing the challenges we collectively face with respect to wildfire.

In order to accomplish the significant task you set before us as a Commission, the Commission utilized a robust workgroup process to distribute member experience and expertise. I served on the landscapes, response, and aviation workgroups, as well what emerged as a significant ad hoc working group on tribal stewardship. Today, I will focus on three specific areas of our recommendations: wood products, tribal authorities, and response (including aviation).

## Wood Products

All of America's forests were once inhabited, managed and used by Indian people. Today, only a small portion of those lands remain under direct Indian management. On a total of 334 reservations in 36 states, 19.3 million acres of forests and woodlands are held in trust by the United States and managed for the benefit of Indians.

Tribes actively manage their forests for multiple uses, including economic revenue, jobs, cultural foods and materials and for other cultural purposes. Catastrophic wildfire can negatively impact all of these uses for multiple generations. In addition to the impacts we see on our reservations, we see those same impacts on adjacent federal land where tribes retain reserved and treaty rights.

Catastrophic wildfire also compounds infrastructure problems that plague most of the west. Loss of wood product value, like the Colville Tribe has experienced since 2015, diminishes critical wood product supply– a supply the already limited wood processing facilities depend upon to stay open and in business. The wood processing industry, which broadly includes sawmills, pallet mills, firewood producers, post and pole facilities, biomass power facilities and other similar uses, can help to offset the cost of forest management and is a critical and necessary tool to accomplish forest management goals and reduce our wildfire risk across our forested landscapes. Yet, many areas are struggling to retain the critical infrastructure necessary to remove material from the woods. The Commission felt that long-term federal investment and commitment is urgently needed in this realm to help re-attract private industry and funding. The Commission called upon Congress to invest in wood processing facilities and the wood utilization sector more generally (see Commission recommendation 19). This investment is critical to offset costly treatments while also providing an economic benefit to the rural communities in which such infrastructure is often located.

Congress must also incentivize the adoption of new technologies and processing systems to produce value added, and demand-driven innovative wood products (see Commission recommendation 21). The Commission also identified Forest Service's Wood Products Infrastructure Assistance grant program, Community Wood Energy and Wood Innovation Grant program, and Wood Innovations Grant program as areas for potential support. Investments in innovation are not alone sufficient however; the Commission articulated the need to support these innovations from the initial pilot phase through to commercial application.

Wildfires do not respect jurisdictional boundaries. We have seen that time and time again in Colville. The flow of fire across boundaries is one of the key constants in our evolving and escalating risk profile. Landscape-level treatments must therefore also flow across boundaries to reduce risk where the work can be most impactful. Yet federal funding rarely does. Often, federal funding is only available to be used in a single jurisdiction. This can make critical all-lands work incredibly difficult to actually accomplish. The Commission called for increased flexibility of federal funds to move across boundaries (see Commission recommendation 24). To begin this process, Congress should commission the Government Accountability Office or similar entity to review existing programs, rules, and authorities that enable or inhibit cross-boundary work. New or modified authorities may be needed to allow this critical work.

The Good Neighbor Authority (16 U.S.C. §2113a) is an existing mechanism for collaboration which enables the Forest Service and Bureau of Land Management to undertake landscape restoration projects in partnership with tribes, states, and counties. The provisions allowing partners to manage the revenue generated from the sale of timber in restoration projects under the authority has been a core component of its success. Revenues can be used to fund additional restoration services, leading to more work accomplished on the ground. This is an excellent example of the importance of mechanical treatments with a commercial component.

While the 2018 Farm Bill gave tribes and counties the authority to enter into Good Neighbor Agreements with federal agencies, the final text precludes tribes or counties from retaining revenue generated from Good Neighbor Authority projects for planning. This is a key component of building successful Good Neighbor Authority stewardship programs as states have done since 2014. The Commission discussed and was in support of expanding the management of Good Neighbor Authority revenue to Tribes, as well as supportive of expansion of the authority to more federal agencies, including the U.S. Fish and Wildlife Service and National Park Service. While the Commission did not, and cannot, endorse specific legislation, I will personally note that there is freestanding legislation in the Senate to make the necessary correction to this issue: S.697, the "Treating Tribes and Counties as Good Neighbors Act," sponsored by Senator Risch that the Intertribal Timber Council has supported.

Supporting the wood products sector, investing in wood products innovation, and supporting essential cross-boundary forest management to provide long term access to the forest products sector are critical components in mitigating the risk of catastrophic wildfire and limiting the losses we are continuing to face. Yet, despite the important role the wood products industry can and should play in fire risk reduction, it is likely that such work will still ultimately require federal investments to match the scale of the need. Investing in proactive fuels reduction activities has the potential to reduce future wildfire-driven impacts and costs. That is why the Commission, in addition to making recommendations to support the wood products industry, recognized the need for, and recommended, significant investments in fuels reduction and mechanical treatments (see Commission recommendation 17). This includes the need to support the reintroduction of fire on the landscape to reduce the risk and severity of wildfire.

Tribal Authorities

As I previously stated, Indian people managed the land since time immemorial, often with fire as a tool. Reconnecting tribes to their ancestral homelands is not just a matter of righting past wrongs. The removal of indigenous people from the land and the discontinuation of seasonal lifeways over the past century and longer have had drastic consequences on the land. Indian Tribes want to reverse those negative consequences, and I do not believe significant progress can be made without integrating indigenous concepts of balance and interconnectedness back to the land.

Tribes hold threads of knowledge passed through our oral histories and culture that tie us to places in which our people lived, died, and practiced unique cultures. We are collectively sharing those threads to help guide the stewardship of our resources both on and off our reservations. There is no greater partner than Indian Country to bring balance and restore resilience to federal forests. Yet we, too, are at a breaking point and need Congress to act.

Much of the land that was once managed by Indian communities is now directly managed by federal agencies. Each agency has a legal responsibility to ensure that management actions are in compliance with their mandated mission and federal laws more generally. Many Tribes and Indian communities are ready and willing to return to stewardship and engage in co-management of these lands with federal agencies. However, congressional action is needed to increase tribal capacity and expand tribal authorities for co-management of public lands.

Coordination and consultation with tribes is an important first step in co-management. While this process is already required by executive order, Congress should reinforce federal agency requirements for coordination with Tribes when engaging in land management planning (see Commission recommendation 28). Also, the Federal Land Policy and Management Act (43 U.S.C.§ 1712 (b), (c)(9)) requires the Secretary of Agriculture to "coordinate" land use plans in the National Forest System with those "of and for Indian tribes" by considering approved tribal land resource management programs. This goes beyond simple consultation with tribes and requires active consideration of site-specific tribal forest management and planning approaches on adjacent federal forests. Another practical step in further institutionalizing coordination is through the expansion of existing stewardship authorities that already have a proven track record of success, as well as creation of new authorities as needed to complement existing authorities.

The Indian Trust Asset Management Demonstration Project provides a good example of delegation of federal authorities to tribal governments. Congress should make permanent the Indian Trust Asset Management Demonstration Project by eliminating the 10-year sunset, allowing continued participation in the Indian Trust Asset Reform Act (Pub. L. No. 114-178, 130 Stat. 432). Passed in 2016, the Indian Trust Asset Reform Act allows, in part, for the authorization of Indian trust management demonstration projects for tribal forestry. Through Indian Trust Management Plans and demonstration projects, several Tribes have engaged in successful forest management projects to reduce wildfire risk on reservations. However, the ITARA pilot program is set to expire. Congressional reauthorization is a simple but effective step in continuing successful partnerships (see Commission recommendation 31).

While some successful programs do exist, new authorities are also needed to accomplish more expansive co-management. Congress should require the Bureau of Indian Affairs to acknowledge that federally recognized Tribes may develop fire programs on tribal trust lands under approved

tribal laws, regulations and policy, or other tribal decision-making processes (see Commission recommendation 15) similar to the Indian Trust Asset Management Demonstration projects mentioned earlier. It is important to note that this authority be focused on empowering tribes and granting BIA the flexibility to recognize tribally developed policies, management priorities, and decision processes versus maintaining that fire management is an "inherent federal function." Particularly since tribes are some of the communities most impacted by wildfire.

In a similar vein, Congress should provide the U.S. Department of Agriculture standalone authorities to enter into co-management agreements with tribes that would allow the Forest Service to share, defer or transfer decision-making authority with or to a tribe for management of Forest Service programs or activities (see Commission recommendation 30). This new authority should build on what has been learned from the previous successes and failures of existing authorities, including 638 contracts and compacts, the Tribal Forest Protection Act, and the Indian Trust Asset Reform Act. We know these programs work and we know these programs can be improved.

Finally, many tribes are already well-positioned and resourced to enter into co-management with federal agencies to reduce wildfire risk. However, additional support is needed for some tribes to support self-governance and capacity in order to address wildfire risk reduction, management, and recovery, and to enable beneficial fire practices (see Commission recommendation 29). By providing federal agencies with the authority to partner, and providing tribes with additional resources, Congress can bring new capacity to a system that has struggled to develop the necessary workforce to reduce risk at scale.

Indian Tribes across the country stand ready to bring our indigenous knowledge and modern expertise to federal forest management.

## Wildfire Response

The importance of reducing the risk of wildfire through mitigation actions in both the natural and built environment cannot be overstated. That does not mean we can ignore the need for a robust and coordinated response to wildfires when they do start. We will always have a need for response, be it to shepherd low-intensity fires that are doing good on the land, or to suppress fires that are burning during undesirable weather or fuels conditions or are too close to communities.

The Commission addressed the response component of the wildfire system through two different workgroups, and ultimately, through two reports to Congress. Our first report, the Aerial Equipment Strategy report was released in January 2023 and was called for directly in the enabling statute of the Commission. Our broader response recommendations are contained in the final report, released in September 2023. I served on both workgroups that addressed these topics.

To begin with response coordination writ large, I want to note that a key theme of the recommendations is improved collaboration between the various agencies and entities that play a role in the wildfire response system. We often think of interagency coordination as a federal-to-

federal problem to solve, which is important, but ultimately unduly limits the scope of partners that should be considered and utilized.

With respect to tribes, the commission saw a need to bring them into the response system on the same footing as states. Enabling more tribes to enter into compacts will expand the available resources for wildfire response and management, including beneficial use of fire. This could be accomplished through a modification of the 1911 Weeks Act, which provided funding and authority for states to manage wildfires within their geographies through fire protection plans and state agencies. Tribes could also be further empowered to engage in wildfire response through an addition to the Indian Self Determination and Education Assistant Act, or another mechanism. Regardless, any policy modifications should make sure to advance parity and equity for tribes in the compacting process (see Commission recommendations 48 and 49). Furthermore, additional funding from Congress could be a means to expanding the workforce for fire response (see Commission recommendation 92).

As I previously noted, the Commission was given a specific charge to develop a strategy to meet aerial fire response equipment needs through the year 2030. Over the course of our work, we reviewed previous strategies and assessments; reviewed data sources on aviation resource use and availability from federal agencies; and met with a range of subject matter experts, including state and federal personnel, and representatives of the private aviation contracting industry. As with the final report, the recommendations developed through this process reached full consensus with the entire Commission.

Importantly, the Commission found that the current wildland fire aviation strategy is based on a seasonal model, yet fire seasons are now longer, overlap geographically in ways they previously did not, and indeed, may be best thought of as a full fire year. Given this, we feel that a reassessment of strategy is required. This is also particularly true as the potential of uncrewed aerial systems - commonly referred to as drones - increases. Use of this new technology needs to be incorporated in strategies moving forward (see Commission aviation recommendations 18 and 19).

To help develop such a strategy, the Commission recommends Congress establish a task force composed of a cross-representative group of fire organizations and other interested and affected parties to explore the feasibility of a regionalized approach to "standards of cover" (see Commission aviation recommendation 1). Important to note, the Commission did not recommend the wholesale adoption of such a standard, but rather found the concept to warrant further consideration. Such a standard - essentially a commitment to respond in a specific timeframe with a defined capacity - is not a strategy in and of itself, but rather a kind of performance measure which may allow for a benchmark to be used to determine if a deployment has met a strategic goal.

A core component to this work should be collaboration and inclusion of all the impacted and relevant entities, including the contracting community, and should be considerate of costs and open to the exploration of the tradeoffs of different ownership models (see Commission aviation recommendations 2-4). This is the best option for developing a truly national - not simply federal - aviation resource strategy. Related, contracting processes need to meet operational needs and

the national strategy (see Commission aviation recommendations 5 and 6), including reliable, longer-term contracts. Efforts should be made to improve the effectiveness and efficiency of the contracting process.

It is important to note, however, that while aerial resources have value in managing unwanted fires, aviation actions are not the sole solution to mitigating and managing wildfire risk. Furthermore, aerial assets cannot be operated without sufficient staffing and training to ensure safe operations. Lack of qualified personnel is a bottleneck to the use of existing resources. Congress can help alleviate this problem through increased investments in training (see Commission aviation recommendations 8-10).

Regarding the use of Department of Defense surplus, a component of the charge given to the Commission, we found that adoption of military surplus aircraft by either agencies or private contractors carries risks and costs that are often overlooked. We heard that federal agencies are ill-equipped to make use of such equipment, in part because the federal model is structured around the use of contractors. Some states and contractors, however, may choose to make use of surplus, and such equipment should be more transparently and readily available (see Commission aviation recommendations 14-16). Additionally, more should be done to improve interoperability between military and civilian assets, particularly in those locations that may lack a contract fleet (see Commission aviation recommendations 11-13).

Conclusion

The Commission itself was a product of Congress. We worked hard to complete the tasks assigned to us. Working collaboratively, the Commission found unanimous consensus among 50 people across 167 policy recommendations contained within two reports. At your direction, these recommendations were delivered back to you for urgently needed policy change. It is important to note that agencies can't accomplish this work alone; congressional action is needed to grant new authorities, expand existing authorities and programs, and provide consistent base funding at the appropriate scale to meet the staffing and activity needs.

Thank you, Chairman Manchin, Ranking Member Barrasso, and members of the committee for your continued work to meet the wildfire challenges we face.

Senator BARRASSO. Thank you very much for your testimony.
Ms. McDonald.

**STATEMENT OF MADELENE MCDONALD,**
**SENIOR WATERSHED SCIENTIST, DENVER WATER**

Ms. MCDONALD. Chairman Manchin, Ranking Member Barrasso, and members of the Committee, I am pleased to be invited to speak with you today to provide testimony regarding the Wildland Fire Mitigation and Management Commission, on which I served. My name is Madelene McDonald, and I am a watershed scientist at Denver Water, the oldest and largest water provider in the State of Colorado. On the Commission, I served in the public utility industry seat. Specifically, I served on topical workgroups focused on workforce, post-fire recovery, and public health and infrastructure, the last of which I co-led.

At Denver Water, I manage the utility's wildfire preparedness programs. Denver Water has been experiencing impacts of high-severity fire for over 25 years. The 1996 Buffalo Creek and 2002 Hayman wildfires collectively burned 150,000 acres directly above a Denver Water reservoir. Untreatable source water originating from these burn scars highlighted the vulnerability of our drinking water supplies to high-severity wildfire. Denver Water spent over $27 million recovering from these two wildfires alone. The Commission outlines a national strategy that recognizes the need for a comprehensive approach to wildfire management to address fires like the Buffalo Creek and Hayman fires. One key component of the Commission's comprehensive strategy is the need for proactive mitigation of wildfire risk in both the natural and built environments. Investing in pre-fire mitigation work is the only way to begin to break the expensive cycle of severe wildfire risk, damages, and loss. In the case of the Hayman Fire, fire suppression cost the Federal Government over $42 million—and that is in 2002 dollars—yet that figure represented only 19 percent of the total estimated economic impact.

The Commission believed strongly that to reduce these overall costs and losses, Congress must invest in programs and approaches to mitigate risk of fire before it occurs. Fortunately, we have examples of successful programs of risk reduction in the natural environment, including the Collaborative Forest Landscape Restoration Program and the Joint Chiefs Landscape Restoration Partnership. These programs should be continued and their authorizations expanded to more explicitly incentivize source water protection and post-fire preparedness. Even with our best mitigation efforts, fire will, and indeed should, still occur. Critically, it is important to note that in many landscapes, wildfire can contribute to healthy and functioning ecosystems and reduce the long-term risk of high-severity fires. It is not the presence of wildfire itself on the landscape that is the core issue. It is often the impacts of wildfire when fire burns at uncharacteristically high severity.

High-severity fire can increase the risk of flooding and debris flows downstream of the burned area, placing critical values, like water treatment infrastructure, road networks, utility infrastructure, and the built environment at risk. These impacts can extend for months or even years after a fire. To address these post-fire

hazards, Congress should authorize and fund cross-jurisdictional assessments that consider downstream values at risk after a fire occurs. Restricting assessments of post-fire risk by jurisdictional boundaries limits our ability to mitigate or eliminate downstream costs and losses. In addition, creating dedicated funding for the Natural Resources Conservation Service Emergency Watershed Protection Program is another key Congressional action that would enable quick, preventative response after a wildfire.

Yet, we do not have to wait until the post-fire period to begin to lessen its impacts. Planning for post-fire recovery represents a critical opportunity to reduce loss. The chaotic and time-critical nature of the post-fire period in the absence of pre-planning often results in a rush to restore to the baseline, or pre-fire conditions. The opportunity to use recovery to build resilience to the next disturbance is then lost. Congress should direct agencies to review and modify existing programs that provide financial and technical assistance for planning to ensure that post-fire preparedness is an allowable and encouraged activity.

In closing, I encourage members of this Committee and Congress to act upon the recommendations of the Commission that this very body established. While the full recommendations of the Commission extend beyond the scope of this Committee, members of this Committee have critical roles to play in advancing work to help us reduce wildfire risk in the natural environment, harden critical infrastructure, proactively plan for wildfire recovery, and develop the comprehensive workforce we need to meet this challenge.

Thank you, Chairman Manchin, Ranking Member Barrasso, and members of the Committee for this time and for your dedication to this issue.

[The prepared statement of Ms. McDonald follows:]

**Testimony of Madelene McDonald**
**Watershed Scientist, Denver Water**
**&**
**Member of the Wildland Fire Mitigation and Management Commission**
**Before the Senate Committee on Energy and Natural Resources**
**March 12, 2024**

Chairman Manchin, Ranking Member Barrasso, and distinguished members of the Committee, I am pleased to be invited to speak with you today to provide testimony regarding the Wildland Fire Mitigation and Management Commission, on which I serve.

The Wildland Fire Mitigation and Management Commission (hereafter "the Commission") was established by statute in the 2021 Infrastructure Investment and Jobs Act (Pub.L. No. 117-58) and charged with developing recommendations to Congress to address the rising risk of wildfire in the United States. We accomplished this pressing task in the one year allotted to the Commission and I am pleased to be able to speak to you today regarding some of the many issues we addressed in the course of the Commission and in our final report.[1] Specifically, I served on topical workgroups focused on workforce, post-fire recovery, and public health and infrastructure, the last of which I was Co-Lead. I was appointed to the Commission to hold one of two seats representing the public utility industry from a state at high risk of wildfire.

My professional career has focused on wildfire and watershed management and for the past five years I have worked for Denver Water, the oldest and largest water provider in the state of Colorado, as a watershed scientist. I was pleased to be able to bring my perspective as a watershed manager, and as a representative of Denver Water, to the Commission. Denver Water is a leader in innovative approaches to watershed and forest management, including the trailblazing From Forests to Faucets initiative. This partnership between Denver Water, the U.S. Forest Service, Natural Resources Conservation Service, the Colorado State Forest Service, and the Colorado Forest Restoration Institute at Colorado State University has invested more than $96 million since 2010 to reduce fuels and improve forest resiliency on over 120,000 acres of forested land within Denver Water's raw water collection system.

Denver Water has been experiencing and managing the impacts of high-severity wildfire for over 25 years. Indeed, the From Forests to Faucets program was started in response to the costly impacts of the 1996 Buffalo Creek and 2002 Hayman wildfires, which together burned 150,000 acres in the South Platte River watershed. Untreatable source water originating from these burn scars highlighted the vulnerability of our water supply to high-severity wildfire.[2] With slow natural recovery in the South Platte watershed, we still see costly impacts to our drinking water supplies from the Buffalo Creek and Hayman burn scars today. To illustrate this point, last year Denver Water experienced sediment flows downstream of these two burn scars equivalent to $2

[1] For a copy of the final report, see: https://www.usda.gov/sites/default/files/documents/wfmmc-final-report-092023-508.pdf
[2] https://www.denverwater.org/tap/improving-forest-health-fire?size=n_21_n

million in damages; more than 25 years later, we are still incurring costs and experiencing challenges related to these wildfires.

The 2002 Hayman Fire provides an example of exactly the type of fire the Commission was created in response to. The Hayman Fire burned close to 138,000 acres and was, at the time, Colorado's largest recorded wildfire. Over 600 structures were lost, including 133 primary residences, and amounting to more than $42 million in housing losses alone.[3]

While fire suppression cost the federal government over $42 million in 2002 dollars, that figure represented only 19% of the estimated economic impact of the fire.[4] Other costs and losses included the loss of tax revenue, sales tax, and direct business losses, over $30 million for lost timber revenue, close to $40 million in erosion control costs, close to $11 million in lost habitat, 10 recreation-based jobs, and more.[5] This is all in addition to the tragic loss of five firefighters and one individual who died of asthma related to the smoke. The estimated 2002 cost of the Hayman Fire was over $207 million and that is almost certainly an underestimate. The cost and loss studies referenced here did not attempt to quantify the cost of human health impacts from the fire nor did they address the loss of ecosystem services.

In terms of drinking water supplies, the Hayman Fire caused major operational challenges and presented significant costs. When landscapes burn at high severity, as seen in the Hayman Fire, soil water retention is altered. Rainfall and snowmelt run off the hillslopes of burn scars without infiltrating the ground. This ultimately results in increased sedimentation and debris flows, which causes water quality degradation, damages to collection and conveyance infrastructure, and reduces water storage capacity in reservoirs.[6] Denver Water estimates that the Buffalo Creek and Hayman wildfires resulted in over 1 million cubic yards of sediment deposited in a critical drinking water reservoir, representing 4-times the amount of sediment accumulated in the 20 years preceding the fire.[7] Sediment dredging from the drinking water reservoir after the Hayman Fire cost Denver Water $18.5 million alone.[8]

The impacts from the Hayman Fire are unfortunately not unique. Countless fires in the intervening years have demonstrated that wildfire impacts to our water systems extend from the natural to the built environment. As the Commission noted in its report,

> *"Loss of power to treatment facilities can also affect water delivery service by limiting the treatment, and therefore the availability, of potable water for consumption. Depressurization of water distribution systems also poses a risk to water quality. In the 2017 Tubbs Fire and 2018 Camp Fire, chemical contamination was found in the water*

[3] https://www.planning.org/research/postdisaster/casestudies/haymanfire.htm
[4] https://headwaterseconomics.org/wp-content/uploads/full-wildfire-costs-hayman-casestudy.pdf
[5] https://headwaterseconomics.org/wp-content/uploads/full-wildfire-costs-hayman-casestudy.pdf
[6] https://doi.org/10.1021/acs.accounts.8b00670
[7] https://www.denverwater.org/tap/legacy-colorados-largest-wildfire?size=n_21_n
[8] https://www.planning.org/research/postdisaster/casestudies/haymanfire.htm

> *distribution network, likely exacerbated by depressurization (Proctor et al., 2020). In the 2021 Marshall Fire, six public drinking water systems serving nearly 67,000 people were damaged, sustaining power loss, direct damage to infrastructure, and more (Whelton et al., 2023). In the 2018 Carr Fire, loss of power and inadequate generators resulted in a 17-day boil water notice in one community (EPA, 2022a).”*[9]

The Commission outlines a national strategy that recognizes the need for a comprehensive approach to wildfire management to address such fires. The report and recommendations acknowledge that we cannot continue to treat wildfire as a natural resource issue alone, nor can a single entity address wildfire risk alone. Rather, the Commission lays out a vision for a more comprehensive approach to wildfire management that integrates considerations of both the built and natural environment, and that more effectively spans each phase of wildfire, including mitigation, response, and recovery.

A key theme of the Commission report and recommendations is the need for proactive mitigation of wildfire risk in both the natural and built environments. Investing in pre-fire mitigation work is the only way to begin to break the expensive cycle of severe wildfire risk, damages, and loss. As noted in the recommendations of the Commission, we need Congress to invest in programs and approaches to mitigate risk before fires occur. Fortunately, we have examples of successful programs of risk reduction in the natural environment, including the Collaborative Forest Landscape Restoration Program and the Joint Chiefs Landscape Restoration Partnership. These programs should be continued and their authorizations expanded to more explicitly incentivize source water protection and post-fire preparedness (critical actions to proactively reduce risk in the post-fire period) in their scope (see Commission recommendations 35 and 77). Congress should also support federal agencies to provide financial and technical assistance to existing and emerging collaborative efforts that work towards wildfire resilience in their communities (see Commission recommendation 139). These collaborative partnerships have been successful in Colorado at applying shared stewardship and leveraging significant investments in forest restoration and wildfire mitigation. For instance, Denver Water’s $48 million investment in the From Forests to Faucets Partnership has been leveraged with a dollar-for-dollar match from the partners entities, bringing the total Partnership investment to $96 million since 2010.

Even with our best mitigation efforts, fire will, and indeed, should still occur. Critically, it is important to note that in many ecosystems, wildfire can contribute to healthy and functioning ecosystems and reduce the long-term risk of high severity fires.[10] It is not the presence of wildfire itself on the landscape that is the core issue; it is often the impacts of wildfire when fire burns with uncharacteristically high-severity. In these cases, as the previous discussion of the Hayman Fire illustrates, the impact to water supplies is an evolving and ongoing challenge that

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[9] https://www.usda.gov/sites/default/files/documents/wfmmc-final-report-092023-508.pdf, p. 86

[10] Holland et al., 2022; Prichard et al., 2021; United States Forest Service [USFS], 2012; Vaillant & Reinhardt, 2017.

often only starts after a wildfire is contained. Timely and effective post-fire recovery is therefore essential.

In the natural environment, Congress should authorize and fund cross-jurisdictional assessments that consider downstream values at risk after a fire (see Commission recommendation 75). These assessments must evaluate the downslope and downstream risks related to post-fire flooding and debris flows regardless of jurisdiction. The Commission repeatedly emphasized the importance of multi-jurisdictional, collaborative approaches to our wildfire issues. Restricting assessments of post-fire risks by jurisdictional boundaries limits our ability to mitigate or eliminate downstream costs and losses. With regard to the execution of recovery projects, creating dedicated funding for the Natural Resources Conservation Service Emergency Watershed Protection Program is a key Congressional action that would enable quick preventative action after a wildfire (see Commission recommendation 76).

In the built environment, we must prepare communities and infrastructure for post-fire flooding and debris flows. Critical infrastructure must be repaired and hardened to withstand these post-fire hazards. For water providers, this involves readying critical infrastructure like water treatment plants to accommodate degraded water entering treatment facilities from a burned watershed. If water quality is degraded beyond treatment capabilities, supplemental or enhanced treatment processes may be required. Congress should expedite grant funding to enhance drinking water treatment facilities and support development of additional treatment infrastructure to maintain water delivery in the post-fire period (see Commission recommendations 34 and 35). This includes equipping state, local, Tribal and territorial public health agencies and water provider partners to provide resources and support to residents to ensure access to safe drinking water after wildfire, including support for development of access to alternative water sources in order to maintain water delivery in the event a wildfire impacts raw water supplies (Commission recommendation 37).

Yet, we do not have to wait until the post-fire period to begin to lessen its impacts. Planning for post-fire recovery represents a critical opportunity to reduce loss. Both the built and natural environments would benefit from this proactive planning. Congress should invest in research around the critical public health risks associated with wildfire contaminated water, including the causes and impacts of volatile organic compounds in water distribution systems as well as effective mitigation strategies (see Commission recommendation 38). In addition, Congress should invest in pre-fire risk assessments and modeling efforts to determine which water and wastewater utilities are most likely to be impacted by wildfires. A better understanding of vulnerable utility facilities, source water intakes, wellheads, distribution systems, collection systems, and other infrastructure components will help prioritize the critical pre-fire mitigation actions to take. Our state, local, Tribal and territorial public health agencies and water provider partners are critical to this pre-fire planning and Congress should support these entities with capacity and technical assistance investments. These investments may include training and equipment for testing water quality for contaminants and toxins, implementing interventions to

prevent and control harmful impacts, and assessing source watersheds and infrastructure. Getting in front of the impacts is ultimately how we can avert long-term, costly, consequences.

Pre-fire planning for fire recovery also allows federal, state, local, tribal and territorial partners to collaboratively identify potential recovery objectives and desired conditions. This pre-planning allows communities to move quickly in recovery and to take advantage of the recovery period to better position communities and landscapes for future resilience. The chaotic and time-critical nature of the post-fire period, in the absence of pre-planning, often results in a rush to restore to baseline (pre-fire) conditions. The opportunity to use recovery to build resilience to the next disturbance is then lost. Congress should direct agencies to review and modify existing programs that provide financial and technical assistance for planning to ensure post-fire preparedness planning is an allowable and encouraged activity (see Commission recommendation 66 and 67).

None of this critical work can be accomplished without a workforce. Both mitigation and post-fire planning and recovery require a wide swath of specialties. We must focus significant attention on expanding this workforce. Congress has a vital role to play in supporting the expansion of this workforce through funding to community colleges and vocational programs, authorizing federal agencies to use hiring and recruitment incentives, and through funding and support to job and conservation corps (see Commission recommendation 88). I have seen the expansion of job and conservation corps programs work in my home state of Colorado, where we have been successful in utilizing youth corps as an onramp to professional careers in wildfire mitigation and recovery. Recruitment is essential, but only a part of the overall need. Retaining the highly skilled workforce we have will take investment in those who work in both the built and natural environments.

The proactive work we must complete to lessen impacts, costs, and losses will require bold action before, during, and after wildfire. In closing, I encourage members of this committee and Congress to act upon the recommendations of the Commission that this very body established. We have done the work of gathering as a community of practitioners, experts, scientists, and representatives of our communities to craft consensus recommendations and chart a path forward to ready the country to be resilient in the face of increasing wildfire risk. While the full recommendations of the Commission extend beyond the scope of this committee, members of this committee have critical roles to play in advancing work to help us reduce the risk of wildfire in the natural environment, harden critical infrastructure, proactively plan for wildfire recovery, and develop the comprehensive workforce we need to meet this challenge. I thank you, Chairman Manchin, Ranking Member Barrasso, and members of the committee for this time and for your dedication to acting to lead the nation to meet the challenge of wildfire.

Senator BARRASSO. Thanks so very much for your thoughtful testimony.

Ms. Norris.

**STATEMENT OF KELLY NORRIS, STATE FORESTER, WYOMING STATE FORESTRY DIVISION**

Ms. NORRIS. Thank you, Chairman Manchin, Ranking Member Barrasso, and members of the Committee for holding this hearing today and for the opportunity to testify on behalf of the Wyoming State Forestry Division. My name is Kelly Norris, and I am the Wyoming State Forester and a member of the National Association of State Foresters.

The Wildfire Mitigation and Management Commission Report stands out for its comprehensive assessment of the nation's wildfire management system. Today, I plan to address the top five recommendations that would help state agencies drive significant change at a national level. I am going to begin with Recommendation No. 47. This is about teamwork and being accessible to each other in our response. States, which can include local fire services, have access to substantial wildfire suppression resources that can be quickly mobilized through our regional and state-to-state forest fire compacts. Compacts are set up for quick response to call for help, and with more efficient mobilization of resources, the overall federal cost for fire suppression can be significantly reduced. Modernizing and decreasing the number of compacts could greatly improve the availability of state resources across the United States.

Moving on to Recommendation No. 55, this is making sure we are effectively funding the fire workforce at all levels. The utilization of the State Fire Assistance and Volunteer Fire Assistance programs is essential to maintaining and building wildland mitigation and management capacity. We need to continue to fund these wildfire risk reduction and protection programs, as they have proved to be an investment that pays dividends. Attacking wildfires when they are small is key to reducing fatalities, loss of homes, and other critical infrastructure and resources, which also reduces the federal firefighting cost. Less than two weeks ago, on March 1st, the Happy Jack Fire started just west of Cheyenne and made a run directly east over eight miles into the city of Cheyenne, with hundreds of homes, F.E. Warren Air Force Base, and a significant and historic arboretum being threatened and evacuated. Many of the local city, county, and state resources that provided the immediate response that stopped the wildfire would not be operational without the use of the State Fire Assistance and Volunteer Fire Assistance programs. The need to increase funding for fire suppression on federal lands has broad support. The need to increase fire suppression on state and private lands is just as urgent.

There are two additional recommendations I would like to call attention to, which are Nos. 24 and 25. Wildfire risk doesn't stop at fence lines and neither should mitigation funding. Treating landscapes at high risk for wildfire in and around communities, holistically, regardless of jurisdictional boundaries, is a better strategy to reduce wildfire risk. The U.S. Forest Service is looking to partners like Wyoming State Forestry Division to help the agency reach its Wildfire Crisis Strategy goals of treating 30 million acres of non

National Forest System Lands. Increasing the flexibility of federal funds to move across boundaries is a way to get that agency and its partners to achieve this goal.

State agencies are thankful to Congress for recently expanding the Good Neighbor Authority to the U.S. Park Service and the U.S. Fish and Wildlife Service, as Recommendation No. 26 suggests. The Good Neighbor Authority program is a highly effective program that should be supported and expanded to accomplish more work faster. Wyoming has invested significant resources in the Good Neighbor Authority program because we know addressing the wildfire crisis requires long-term, active management on all lands. State Forestry just recently was given authority through Wyoming's legislature through House bill 43 to double the amount of Good Neighbor Authority positions, helping to increase the management necessary on our federal forests. State agencies support making all aspects of the authority permanent because we need consistency and predictability to continue to grow our Good Neighbor Authority programs.

America's federally managed forests face serious threats. Wyoming and many other states are very concerned at how the national-level old-growth initiative could contradict the U.S. Forest Service's Wildfire Crisis Strategy. With wildfire being the number one cause in the loss of old-growth forests, it is imperative that the U.S. Forest Service continues to prioritize the wildfire crisis. Keeping laser-focused on addressing the wildfire crisis will result in the agency being much farther along in protecting, maintaining, and recruiting old-growth forests.

To conclude, wildland fire response and management is one of the most challenging facets of my job as a state forester. Implementing the recommendations I highlighted today will immediately increase the efficiencies and effectiveness in tackling the wildfire crisis. State agencies need to be a part of the implementation to these recommendations. And lastly, we must stay focused on the urgent need to actively manage the fuels within our forests across all ownerships.

[The prepared statement of Ms. Norris follows:]

**Testimony of Kelly Norris, Wyoming State Forester On Behalf of the Wyoming State Forestry Division Submitted to the U.S. Senate Committee on Energy and Natural Resources Friday March 8, 2024**

Good morning, Chairman Manchin, Ranking Member Barrasso, and Members of the Committee. Thank you for holding this hearing today and for the opportunity to testify on behalf of the Wyoming State Forestry Division. My name is Kelly Norris, and I am the Wyoming State Forester and member of the National Association of State Foresters (NASF). It is an honor to have an opportunity to speak with you today and submit written testimony as the Committee examines the findings and recommendations of the Wildland Fire Mitigation and Management Commission detailed in its final report to Congress that focused on the complex issues surrounding wildland fire management.

**Priority Recommendations from the Wildfire Commission Report**

The Wildfire Mitigation and Management Commission (WMMC) issued its final report (the report) to Congress in September of 2023. The report, which contains 148 specific recommendations over 340 pages, outlines the urgent need for developing new approaches to address the wildfire crisis, supporting collaboration to include partner involvement at every scale, and shifting from reactive to proactive planning for mitigating and recovering from wildfire. The report highlights the importance of enabling beneficial fire, including prescribed fire and cultural burning to reduce the risk of catastrophic wildfire. It also provides support for expanding the workforce through hiring and retention of the wildland firefighting staff needed to address the crisis, modernizing tools for informed decision making, and leveraging available technology and information, and investing in resilience to better match the immense scale and scope of the crisis and reduce costs long term.

The report stands out for its comprehensive assessment of the nation's wildfire management system. Today, I want to address a few key items from the report that if implemented, would help state forestry agencies, such as mine, and our partners and the communities we work with, drive the significant change needed at a national scale.

**Recommendation #47:**

**Congress should help advance efforts by the Alliance of Forest Fire Compacts, State Foresters, and others to update regional compacts to meet modern fire management needs and to submit the updated compacts for congressional approval.**

***Interagency coordination is key.***

This recommendation can make an immediate difference in addressing the wildfire crisis and does not require additional funding to complete, only coordination and support from Congress.

The Weeks Act of 1911 gave states the authority to enter into interstate compacts, or agreements to protect forests and watersheds across state lines through greater sharing and coordination of wildland fire management resources, information, and training. Forest Fire Compacts allow member states and Canadian Provinces to share wildfire suppression resources through mutual aid agreements across state and national lines to respond to wildfire emergencies.

States have access to substantial wildfire suppression resources, which can include local fire services, that can be quickly mobilized, through our Forest Fire Compacts and state-to-state compacts. Compacts are set up for quick response to a call for help, with the sending unit typically initially covering the costs of their resources they send for assistance to later be reimbursed.

There are eight existing Forest Fire Compacts in the US, four of which are unable to share life-saving resources with other compacts due to lack of liability coverage for inter-compact resource exchanges. Additionally, five states, California, Arizona, Nevada, Utah, and Hawaii are not members of a Forest Fire Compact. These factors limit the availability of state and Canadian firefighting resources which could be mobilized at any given time to respond to wildfire emergencies on federal lands.

With more efficient mobilization of resources, the overall federal cost for fire suppression can be reduced. In any given year, roughly 75% of state agency resources mobilized through the National Interagency Coordinating Center (NICC) respond to wildfires on federal lands. Modernizing and reducing the number of compacts could greatly improve the availability of state resources across the United States.

My association, the National Association of State Foresters (NASF) is leading efforts to develop and enact federal legislation that would provide a new standard of liability that states could adopt, as well as exploring opportunities to increase Tribal participation in the Forest Fire Compacts. Additionally, NASF is leading conversations amongst state foresters from the five southwestern states and Hawaii, and exploring options for joining existing Forest Fire Compacts that are able to send and receive resources under inter-compact exchanges.

**Recommendation #55:**

**Create and fund more training opportunities for the mitigation and management response workforce.**

***The utilization of State Fire Assistance (SFA) and Volunteer Fire Assistance (VFA) programs are essential to maintaining and building wildfire mitigation and management capacity.***

The US Forest Service, State, Private, and Tribal Forestry, State Fire Assistance (SFA) and Volunteer Fire Assistance (VFA) programs are important federal mechanisms for assisting states and local fire departments in responding to wildland fires and in conducting land management activities that mitigate fire risk on non-federal lands. These programs help train state and local

initial attack responders who are often first to arrive at a wildland fire incident, as well as equip them with the tools they need to put wildland fires out efficiently and safely.

For example, in fiscal year (FY) 2023 alone, the SFA program provided over $17 million in funding for hazardous fuels treatments, which resulted in states directly treating 67,740 acres and allowed partners to treat an additional 233,660 acres. Another $4.7 million in SFA assistance was provided to conduct 6,858 wildfire risk assessments and fire management planning projects in 3,197 communities. In FY 2023, the VFA program provided assistance to 10,492 communities, trained 20,571 firefighters, expanded or organized 135 fire departments, and purchased, rehabilitated, or maintained over $12 million in firefighting equipment. State forestry agencies helped train over 60,000 firefighters and helped over 25,000 communities manage wildfire risk via funding from the SFA and VFA programs in FY 2023.[1]

Under the Infrastructure Investment and Jobs Act (BIL/IIJA), SFA received a total of $88M available over five years (FY22-FY26), with $17.6 million allocated annually, and VFA received a total of $20 million over five years (FY22-26), with $4 million allocated annually. State Foresters are concerned with the potential for a drop-off in funding when the BIL/IIJA funding expires in FY 2026 and are working with partners like the International Association of Fire Chiefs, the National Volunteer Fire Council, and the Congressional Fire Services Institute, and members of Congress to ensure positive growth and momentum for these critical programs.

We need to continue to fund these essential wildfire risk reduction and protection programs, as they have proved to be an investment that pays dividends. The important work accomplished through SFA and the VFA programs helps decrease total federal emergency wildland fire suppression costs and reduce the threat of fire to communities on public and private lands. Attacking wildfires when they are small is the key to reducing fatalities, injuries, loss of homes and other infrastructure, and cutting federal fire-fighting costs. The need for increased funding for fire suppression on federal lands has broad support. ***The need to increase fire suppression funding for state and private lands, is just as urgent.***

**State and Local Contribution to Wildfire Response**

Last year (2023) was a relatively light fire year in terms of overall acres burned, in which 56,580 wildland fires burned roughly 2.5 million acres, while on average over the last ten years, 61,407 wildfires burned approximately 7.2 million acres per year.[2] As of March 5th, we have already seen

[1] Congressional Research Service Forest Service Assistance Programs, Updated June 30, 2023 pg. 28. Accessed March 6, 2023 https://crsreports.congress.gov/product/pdf/R/R45219

[2] National Interagency Fire Center (NIFC) Wildland Fire Summary and Statistics Annual Report pg. 11. Accessed March 5, 2024 https://www.nifc.gov/sites/default/files/NICC/2Predictive%20Services/Intelligence/Annual%20Reports/2023/annual_report_2023_0.pdf

nearly 1.5 million acres burned almost entirely on state and private lands in 2024, with that figure rapidly increasing as active wildfires persist across the United States.

Wildfire management is inherently a partnership effort between federal, state, local, and volunteer agencies and departments. State and local agencies respond to the majority of wildfires across the country; in 2023 state and local agencies were responsible for responding to 46,176 (82%) of the 56,580 reported wildfires across all jurisdictions. State forestry agencies like the Wyoming State Forestry Division contribute a significant portion of the overall wildland fire suppression effort nationally in terms of resources, personnel, capacity, coordination, and funds.

State and local resources are critical partners that are worth investing in. As the wildfire crisis has confirmed, wildfire doesn't just occur on federal forestlands. On March 1st, 2024 the Happy Jack Fire started just west of Cheyenne and made a run directly east, over six miles into the City of Cheyenne. With hundreds of Cheyenne homes, F.E. Warren Air Force Base, and a historically significant arboretum being threatened and evacuated, all resources within reach responded. Responders included resources from the City of Cheyenne, three Wyoming counties, five Wyoming state agencies, Colorado state and county entities, the US Forest Service, and F.E. Warren Air Force Base, all of which assisted to contain the Fire Management Assistance Grant (FMAG) wildfire. Due to the quick response and interagency support by numerous local, state, and federal entities, the wildfire was stopped before ruining a single Cheyenne home, the indispensable infrastructure on the Base, or a single historically significant tree.

There are two additional programs vital for supporting the capacity of state and local agencies; the Federal Excess Personal Property (FEPP) program and the Firefighter Property Program (FFP). On average these programs deliver over $170 million annually in equipment used to fight wildfires.

The FEPP Program loans federally owned property to state forestry organizations and their cooperators for use in responding to wildfire. This includes equipment such as trucks, fire tools, hoses, vehicle parts, nozzles, generators, air compressors, fire protection clothing, aircraft, and aircraft parts. While FEPP gives firefighters access to Department of Defense property for use in firefighting and other emergency services, the FFP allows ownership to pass from the federal government following a specified period of use. These two programs are crucial to rural communities and for many small fire departments as federal excess equipment may be the only affordable equipment available to them.

Wyoming State Forestry Division operates a maintenance and fabrication facility that employs five mechanics and an equipment ordering manager. Their main mission is to prepare the FEPP and FPP equipment with fire packages for our county cooperators who utilize these engines for wildfire response. Local fire departments often utilize the equipment these federal excess property programs provide to keep wildfires small and contained, which provides major cost-savings to states and their cooperators, and offer the critical protection to communities. Continued federal assistance is needed so that all these programs will continue to help the many thousands of communities at risk to prepare for and mitigate the risks associated with wildland fire.

**Recommendation #24:**

**Increase the flexibility of federal funds to move across boundaries.**

**Recommendation #25:**

**Congress should allow a certain percentage of hazardous fuels funding above agency base levels to be used across ownership boundaries.**

***Wildfire risk and mitigation needs do not stop along property boundaries.***

Neither of these recommendations require extra funding, but can make a difference in getting the most crucial acres treated within our wildfire prone landscapes by allowing cross boundary application. Not allowing the use of federal funds across all ownerships leaves states and counties to find additional fundings sources, slowing down progress, and limiting efficiencies that can be accomplished through one funding source.

Congress has provided opportunities for using federal funds across boundaries, but they are limited in scope and scale. Increased flexibility of federal funding to cross boundaries is essential to ensuring an all-lands, all-hands approach to reducing wildfire risk.

In all cases, treating landscapes at high risk of wildfire in and around communities holistically, regardless of jurisdictional boundaries, is more effective at reducing wildfire risk.

Rather than establishing arbitrary thresholds—as stated in recommendation #25—state agencies believe it is more important to focus on expanding and broadening existing authorities to allow for more flexible use of federal funds across boundaries.

The US Forest Service is looking to partners like the Wyoming State Forestry Division to help the agency reach its Wildfire Crisis Strategy goals of treating 30 million acres of non-NFS lands. Increasing the flexibility of federal funds to move across boundaries is a way to help the agency and partners achieve those goals. There are lessons to be learned from 2018 Farm Bill, which offered solutions and was successful in promoting cross-boundary wildfire mitigation.

The 2018 Farm Bill amended section 103 of the Healthy Forests Restoration Act (16 U.S.C. § 6513), providing a new authority for the Forest Service to spend up to $20 million on grants to state foresters for hazardous fuel reduction projects that cross land ownership boundaries, particularly in priority landscapes as identified in State Forest Action Plans.

While section 8401 of the 2018 Farm Bill is working well, there remains a need to increase the authorization for this provision to meet the demand and capacity to accomplish this work. Increasing the authorization would not require new funding as this funding is derived from the Forest Service's Hazardous Fuels budget line item (BLI).

**Recommendation #26**

**Expand Good Neighbor Authority to more federal entities, including the U.S. Fish & Wildlife Service and National Park Service.**

***The Good Neighbor Authority Program is a highly effective program that should be supported and expanded to accomplish more work, faster.***

The Good Neighbor Authority (GNA) program has allowed the Forest Service and Bureau of Land Management to partner with states on federal forest restoration and management projects, facilitating critical work to improve species habitat, enhance watersheds, reduce hazardous fuels and mitigate wildfire risks. GNA is a great tool and has been Wyoming's answer to getting more work done on our federal forested lands.

Since GNA was first authorized by Congress with the 2014 Farm Bill, at least 38 states have broken ground on over 380 GNA projects. Through these GNA projects, states are contributing to the restoration of federal forests on an unprecedented scale. According to the Congressional Research Service, the amount of Forest Service timber sold under GNAs has increased from 14.4 million board feet in FY 2016 to 182.6 million board feet in FY 2019.

Wyoming State Forestry Division currently has 19 active US Forest Service agreements across six National Forests and two US Forest Service Regions. We also have three active BLM agreements. These agreements total eight million in project funding. Since 2017, State Forestry has contracted over 11,000 acres of projects on federal lands and sold about 32 million board feet of federal timber.

State agencies are thankful to Congress for recently expanding the GNA authority to the US Parks Service and US Fish and Wildlife Service and support further expanding GNA to all federal land management agencies, as well as authorizing the reconstruction, repair, and restoration of roads which are vital to wildfire response and mitigation. Allowing GNA revenue and/or the value of Forest Service timber to be used for reconstruction, repair, and restoration of non- National Forest System (NFS) roads necessary to implement GNA projects on federal lands would be greatly beneficial.

Additionally, Wyoming State Forestry Division and NASF supports making all aspects of the authority permanent. Wyoming and many other States have invested significant resources in the Good Neighbor Authority Programs because we know addressing the wildfire crisis requires a long term, all-lands all-hands approach. While the recently passed FY 2024 appropriations bill extended State's ability to retain revenue until 2024, it is insufficient assurance for states to conduct the necessary long-range planning to continue these investments. We need consistency and predictability within in the Good Neighbor Authority Program. Lastly, we recommend removing

the requirement that GNA project revenues be spent solely on federal lands, as this limitation can result in reduced effectiveness and benefits.

**Our Nation's Forests and Wildfire**

Federal, State, and local fire managers have learned the critical role hazardous fuels management plays in mitigating wildfire impacts. Solely focusing on wildfire suppression and ignoring proactive forest management does not lead to fewer wildfires in the long run; the fuel continues to build up and eventually wildfires become unmanageable. The task for wildfire managers is to manage the risk to communities and ecosystems in both the short- and long-term by implementing a coordinated program of fuels reduction, fire suppression, and community planning.

Hazardous fuels reduction has two main components: prescribed fire and silvicultural treatments, such as "thinning." Both activities have a beneficial impact on mitigating wildfire emissions by reducing combustible material in the forests and allowing fire to play its natural role in the ecosystem. In many parts of the country, especially on federal lands which have not seen regular management, forest stands are too dense to conduct prescribed fire and thus active management activities such as forest thinning is a crucial first step in managing hazardous fuels. Following a harvest treatment, prescribed fire can be an important tool for maintaining the investment in healthy and resilient forests and minimizing the risk of catastrophic wildfire.

As a State Forester, I believe we need to be doing significantly more hazardous fuels reduction across all ownerships, public and private, across this country. My fellow State Foresters are also committed to continue working towards this goal. Such treatments allow us to put fire on the landscape at times and under conditions that minimize impacts, including smoke emissions. These treatments reduce fuel loading in the forests, so that when wildfires inevitably occur, they burn with less intensity, reduced spread, and fewer smoke impacts on communities and firefighters. Where forests of different ownerships exist in close proximity to each other, it is critical that decisions about suppression and fuels treatments get made in a collaborative and cooperative way. This is especially true for federal lands on which fire management often has a direct impact to adjacent state and private lands.

**Fuel Treatments and Active Forest Management**

Substantial increases in active forest management and fuel treatments across all landscapes and ownership boundaries are needed in the areas of greatest risk for wildfire. Without an increase in coordinated forest management, wildfires will continue to pose a threat to the nation's forests, destroy our cherished communities, and irrevocably alter American landscapes. The scale of wildfires and their community impacts far outpace current efforts to prevent them and mitigate the damage they cause. Fire threats are best addressed by a holistic all-lands approach to wildfire response and proactive forest management across federal, state, and private lands.

America's federally managed forests face serious threats. Entire landscapes are experiencing deteriorating health and uncharacteristic ecological change as a result of insects and disease, catastrophic wildfire, and other forest health stressors. Forest health threats know no boundaries and there is an urgent need for more active management on these landscapes in order to protect both public and privately-owned forests and the communities that depend upon them. State Foresters are responsible for protecting the health and socio-economic benefits of forest resources within their jurisdictions and what happens on federal forests has a direct bearing on their ability to fulfill those responsibilities.

Intentional management is necessary to improve the resilience of federal forest lands. In regions with a mixture of ownerships, the prerequisite for success is landscape-level coordination, which includes the full participation of federal partners. State agencies must be a part of the solution of getting more work done on our forested lands.

**Old Growth Initiative**

***Keep the US Forest Service focused on the Wildfire Crisis Strategy!***

In the November 2023 Mature and Old-Growth Forest Threat Analysis Update Webinar, Forest Service staff detailed the initial findings that the greatest threats to old-growth are wildfires, insects, and disease. Wyoming Division of Forestry Division and NASF agrees, and would add that these threats are prevalent for forests of all ages and across all ownerships. The management of federal forest lands greatly influences not only NFS lands but also the 66% of America's forestland that is not federally owned. These lands provide benefits to society as a whole, and their health and resilience can be put at risk when nearby NFS lands are inadequately managed.

Well-planned, science-based, and deliberate forest management activities, including commercial timber harvest, are necessary to limit these threats. We are concerned that this national-level, old growth initiative will limit the US Forest Service's ability to increase the pace and scale of active forest management needed to implement the wildfire crisis strategy and improve forest conditions.

With wildfire being the leading cause in the loss of old growth forests, it is imperative that the US Forest Service continues to prioritize addressing the wildfire crisis. Focusing staff's limited resources and time on addressing the wildfire crisis and implementing current land management plans will get the US Forest Service much farther along in protecting, maintaining, and recruiting old growth.

**Conclusion**

Thank you for the opportunity to appear before the Committee today on behalf of the Wyoming State Forestry Division. Wildland fire response and management is one of the most challenging facets of my job as State Forester. I appreciate the work of this committee to address these issues today and for its continued support of wildland firefighters across the nation. The suite of federal programs discussed today support state and local capacity that is critically important to the nation's wildland fire response capability.

State Foresters and our association, the National Association of State Foresters (NASF) stand ready to assist the Committee in finding ways to address the challenges we all face as the wildland fire problem continues to grow and consume larger and larger portions of our state and federal budgets.

Finally, I would like to thank the Committee for its continued leadership and support of efforts to both respond to wildland fire and to take the necessary actions to address the underlying causes of catastrophic wildfire with more active forest management on all ownerships.

Senator BARRASSO. Well, thanks so very much for the testimony from all of you. Let me start with questions.

Ms. Harrell, if I could—the Biden Administration has called for a threefold increase in forest management and restoration projects in order to confront the wildfire crisis. The Administration is pursuing a top-down, Washington-driven, old-growth forest management policy. Could you explain how this restrictive old-growth policy is going to actually help the Department confront the wildfire crisis?

Ms. HARRELL. Yes, Senator, thank you for the question. The old-growth strategy is complementary to the—wildfire crisis strategy. In fact, the threat analysis for the old-growth and mature forests highlights the fact that wildfire is the most significant risk to the persistence of old-growth forest conditions across the National Forest System. And one of the earliest uses of our emergency authority was to protect giant sequoias from high-severity fire risk. That's why the scoping notice for the amendment calls for proactive stewardship, which would include the ability to treat these stands for that risk, as well as regionally informed and geographically informed adaptive management strategies to reflect risk on the ground.

Senator BARRASSO. Ms. Norris, can I ask you to comment on what she said? I mean, I understand the sequoias, but in terms of just the overall policy of the old-growth effort?

Ms. NORRIS. Thank you, Senator.

As a forester, protecting, maintaining, and recruiting old-growth is important. And in order to do so, we have to continue to actively manage our forests. Wildfire is a leading cause of loss of old growth, and it is a threat to forests of all ages, across all ownerships, which is why we must stay focused on continuing to address the wildfire crisis, as it will directly benefit all of our forests for the long term.

Senator BARRASSO. You talked a little bit, Ms. Norris, about the Good Neighbor Authority and how that has been successful as a tool for the Wyoming State Forestry Division. So in the last eight years, since the U.S. Forest Service launched the program, Wyoming has treated 11,000 acres of federal land in the state, 6,600 acres of timber harvest, providing 30 million board-feet for local Wyoming sawmills. How vital is Good Neighbor Authority in Wyoming, and what makes the state such an effective partner?

Ms. NORRIS. Thank you, Senator.

The Good Neighbor Authority program is extremely important to Wyoming, as 85 percent of our forested lands in Wyoming are federally owned. A great example of how Good Neighbor Authority can be such an important tool in our toolbox is, in 2023, Wyoming—Region 4—all the timber sales that were sold out of Region 4 in Wyoming were GNA state timber sales. One of the reasons I think we are so effective in the work that we are doing through GNA is the fact that our contracting systems and our administration are flexible and adaptable to help get more management done on the ground. And I would like to thank you, Senator Barrasso, for your vision and leadership on this GNA program.

Senator BARRASSO. Okay, let the record reflect—vision and leadership.

[Laughter.]

Senator BARRASSO. Thanks. I appreciate it.

Ms. Harrell, the Commission acknowledged that the Forest Service and the Department of the Interior need to support the forest products sector. Currently, we face a dire situation for the timber industry near the Black Hills National Forest—fewer sawmills and an escalating threat of catastrophic wildfire. So what happens to a national forest when you lose a local sawmill, and then how quickly does the cost per acre for treatment increase as a result of that?

Ms. HARRELL. Thank you for the question, Senator.

The wood products industry is essential to being able to realize the vision of increasing pace and scale of treatments as described in the Wildfire Crisis Strategy, and both the Wildfire Crisis Strategy and the Commission report recognized that importance. And the Commission included recommendations to invest in flexibility and facilities and other wood innovations and other support for the industry.

Senator BARRASSO. So you would agree the Forest Service needs to retain, at the very least, its existing private-sector partners in the timber industry?

Ms. HARRELL. Yes, Senator.

Senator BARRASSO. Okay, Ms. Norris, anything you would like to comment on this?

Ms. NORRIS. Thank you, Senator.

I have to agree. The timber industry is a very critical partner in getting more work done on the ground to reduce wildfire risk, and if we lose a mill in Wyoming, that is going to mean an economic loss, a loss in treated acres, and continued challenges of wildfire risk and forest health in those forests. Wyoming State Forestry has been working closely with the Bearlodge Ranger District, through our GNA program, helping to build their capacity and supporting them through the projects they are working on, on the Wyoming side. In particular, we are doing, recently, NEPA contracting for assessments to just move projects faster forward. Thank you.

Senator BARRASSO. And final question, Ms. Harrell. In recent years, Congress has provided the Forest Service and the Department billions of additional taxpayer dollars for wildfire mitigation efforts. We have heard this from both sides of the aisle in previous hearings. Despite all the money, we have yet to really see a significant increase in the number of acres treated, which has been a concern about all this. With all these resources, how is it that the timber outputs remain below 2018 levels?

Ms. HARRELL. Senator, we really appreciate the down payment provided in the Bipartisan Infrastructure Law and IRA. We are putting those dollars to good use. Last year, the Forest Service had the most number of acres treated, 4.4 million acres, in the agency's history, and we will continue to work to invest those dollars and to be able to treat acres wisely.

Senator BARRASSO. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN [presiding]. Thank you, Senator.

And I'm sorry, I had to go to another meeting, but I wanted to get a few questions in, and we want to keep it continuous. This is a very, very good discussion.

Scientists have increasingly seen that forest ecosystems simply do not recover from these severe wildfires without human intervention. Instead, they convert into shrubland. So hazardous trees remain on landscapes for far past the point where they can be harvested for value. I have said this many times. I was out at Yellowstone when—they had horrendous fires, and I could not believe that we had not harvested those trees—they're just going to rot there. Has any consideration been given to allowing timber contractors to come in after a devastating fire to harvest the best that we can, so the new growth will come back in a quicker, better way? And this is to all witnesses, whoever wants to speak up, please do.

Ms. Kelly.

Ms. NORRIS. Thank you, Senator.

I can speak on behalf of what we see in Wyoming. When we do have wildfires, we work pretty quickly—especially, for example, in the Black Hills, we had a fire that occurred, and we moved very quickly with our GNA program to turn around and be able to salvage that timber because it was ponderosa pine. It has a very short lifetime for us to salvage that——

The CHAIRMAN. Does that help for regrowth too?

Ms. NORRIS. Yes, absolutely.

The CHAIRMAN. Anybody else? Yes, sir. Mr. Cody.

Mr. DESAUTEL. Yes. Colville also has a very aggressive post-fire restoration strategy that includes salvage logging to the extent that the local newspaper took a picture of a logging truck hauling smoking logs into the mill at one point a few years back. So we recognize it as a tool to help put those——

The CHAIRMAN. Does the Department of the Interior stop you from doing it? They always tell me they were not allowed to do this or they did not get permits to do it—couldn't go into a freshly burned—let's say within six months to a year after a forest fire. Is Interior still taking that position?

Mr. DESAUTEL. At Colville, at least, the BIA Superintendent has signed off on these through expedited NEPA processes. Those exercises are done ahead of time in our forest management plans, so we know fire salvage will be a component of our forest management. And so, we evaluate those impacts ahead of time.

The CHAIRMAN. Ms. Mooney, from the Department's—are you all stopping them from getting in quicker?

Ms. MOONEY. I will have to take that and take a look at that.

The CHAIRMAN. Okay, anybody else? Because I think it's extremely important. It really is. It's just a waste of a good resource.

Let me go to another question. Ms. Mooney, can you describe where the Department of the Interior is in implementing Congress's directive to provide straightforward regulations for trimming hazardous trees along transmission lines in rights-of-way? We know the damage, and things happen—fires happen because of it. We have outages because of it, because no one maintains it, or they have a hard time getting permission to maintain it. So if you could speak to that, I would appreciate it.

Ms. MOONEY. Absolutely. Thank you for that question, Mr. Chairman. This is a high priority for all of our bureaus, for the departments, and me. The Commission recommendations emphasize proactive investments to reduce risks. We look forward to con-

tinuing to work with the utilities and others to make government more effective and efficient, and this is a priority for me.

Thank you.

The CHAIRMAN. Let me go to, I think, Mr. Cody, I will go to you. The Commission also examined the ways the Forest Service and DOI use aircraft for wildfire detection, suppression, firefighting transport, and even igniting prescribed fires. So can you discuss the process the Commission took to try to get a baseline understanding on the uses and effectiveness of fire aviation?

Mr. DESAUTEL. So it was a struggle, I will admit. There is a lot of data that is tough to interpret because we have incident management teams that order more than they need to, or don't place orders sometimes because they don't think they will get the order filled. So we tried to look at the existing infrastructure—how it had been used successfully in wildfire suppression, and what the needs were for things outside of suppression, like fuels treatments, and otherwise.

The CHAIRMAN. Did the Commission come to an understanding or a unanimous decision on this?

Mr. DESAUTEL. We—the unanimous decision was that we needed more data that was reliable and that we would look at a "standards of cover" approach to what the air fleet should look like across all jurisdictions—state, private, and federal.

The CHAIRMAN. One final thing I wanted to ask you all. I was always concerned, because I talked to someone who is a large harvester on BLM lands. And they were telling us that, you know, they will be out working in the forest and they will see a lightning strike and a fire start, but they were by law unable to go in there and try to fight that fire before it got to the point to where, you know, the firefighters and the government got involved. They could have maybe suppressed it or contained it better, but they were unable to do that. Has that changed at all, the process? The only thing—I know in the coal mining business, every mine had to have a rescue team, because we knew if we could get into the mine and try to rescue a miner, we could save their life quicker than waiting for the rescue team to come in 6 hours or 24 hours later. And I use that same concept in thinking, boy, if you have every fire or every timber outfit that bids on contracts for harvesting on BLM lands, they should be required to have a firefighting unit trained to go into rapid response. Was that discussed at all?

Mr. DESAUTEL. Yes, it was. There are some liability challenges with that if you have untrained personnel responding——

The CHAIRMAN. No, you would have to have a certified crew. The training and continuing training. We are trying to get that done, because I think it would really cut down on these fires getting out of hand as quickly as they do.

No? Anybody else have any comment?

Ms. McDonald, do you have anything?

Ms. MCDONALD. Yes, I have nothing to add for the certifications, but just a point of emphasis in the Commission's report is the use of beneficial fire, and so, in some areas, when that natural ignition occurs, if it is burning at a lower or moderate intensity under the correct weather conditions, the Commission does encourage the use of beneficial fire where possible.

The CHAIRMAN. Ms. Norris, have you seen anything in your——

Ms. NORRIS. Thank you, Chairman.

If that fire is occurring on state or private lands, we are expecting to step up and put it out. We do not have beneficial fire authorities nor do we agree to that. So with that being said, I am not sure what that means on federal lands, but typically, many of those loggers do carry quite a few pieces of equipment to help in support but are required to call it in.

The CHAIRMAN. Thank you. Senator Daines.

Senator DAINES. Chairman Manchin, thank you.

For the past decade, the Forest Service and the Department of the Interior have moved from talking about fire seasons now to fire years. Wildfires are starting earlier. They are ending later and are larger. They are hotter, and they are more devastating than what we have seen in the past. Fuel loads on our public lands are at all-time highs. Needed on-the-ground timber harvests and thinning work has been stalled by litigation, leaving our forests very vulnerable to wildfire. Drought, insects, and disease have turned these overstocked forests into tinderboxes that are just waiting to burn. In the summertime in Montana, when we have these longer fire seasons, it's quite common when we have visitors that come to our great state in the summer, I have to show them pictures of the mountains because you can't see them because the skies are filled with smoke.

The Forest Service 10-Year Wildfire Crisis Strategy aims to treat 50 million acres of federal, state, and private lands, but this is only a start to the critical management work that we need done on over 100 million acres of federal lands alone that are at elevated risk of catastrophic wildfires. This risk is highlighted by the wildfires currently burning across the southern part of our country. To date, 1.4 million acres have burned. The 10-year average in the same timeframe is just over 185,000 acres burned. So we are already seeing nearly ten times the average destruction. The devastating Smokehouse Creek Fire in Texas is the largest in the state's history and is over a million acres. High winds fueled its growth, and at peak spread, it was consuming two football fields of ground a second.

Deputy Under Secretary Harrell, in the Commission's aviation report, two recommendations focus on firefighting aircraft contracts that are no longer fulfilling baseline operational demands to cover the extended nature of fire seasons. How many air tankers were on contract the day the Smokehouse Creek Fire broke out in Texas?

Ms. HARRELL. Thank you, Senator.

What I can tell you is that we were able to deploy aircraft to help——

Senator DAINES. How many were on contract the day that broke out?

Ms. HARRELL. I will have to follow up and get you that specific number, Senator.

Senator DAINES. Do you know what it is?

Ms. HARRELL. I don't

Senator DAINES. How long after the fire was detected did retardant or water drops start on the fire?

Ms. HARRELL. Again, I don't know the specific time. I do know that we were able to deploy over 200 fire personnel to help the response.

Senator DAINES. Yeah, there is an old saying in firefighting: It's a lot easier to put them out when they are small and the rapid response.

A finding in the aviation report indicated that aircraft contracts favor short-term expediency over long-term value, which is concerning when you look back to the Blue Ribbon Panel on federal aerial firefighting that was established following several fatal airtanker crashes in 2002. What is the agency doing to prioritize best value in their contracting?

Ms. HARRELL. Thank you, Senator.

The agency is working to join forces as best as possible. The Commission did highlight the need to be able to look at contracts in the light of the fact that we have fire years and made recommendations for a task force on that topic.

Senator DAINES. Deputy Secretary Harrell, many of the recommendations in the final "On Fire" Commission report center around increasing active management and encouraging collaborative approaches to forestry. In Montana, these forest projects are essential. They are essential to forest health, and these are being halted by litigation. You know, a healthy forest is a carbon sink. A burning forest is a carbon emitter. If Congress does not fix the Ninth Circuit Cottonwood decision on forest plans that have zero on-the-ground impact on species, how will this impact active forest management work to mitigate wildfire risk?

Ms. HARRELL. Senator, we agree. We absolutely want to be able to implement land management plans in a timely way, and we have been working with our sister agencies on a path forward that addresses Cottonwood and protects wildlife, and we'd be happy to follow up with your staff.

Senator DAINES. Do you think we should resolve and get this Cottonwood fix passed by Congress and signed by the President?

Ms. HARRELL. I think there is a path forward that——

Senator DAINES. Do you think we should do it? I mean, you are on the front lines of all this.

Ms. HARRELL. We would be happy to follow up with your staff on the recommendations.

Senator DAINES. So what do you think? You are a professional, and you see it. Should we pass it or not?

Ms. HARRELL. We do not have an administrative position on that legislation, but we have been working closely with our sister agencies on a path forward, and we'd be happy to follow up.

Senator DAINES. Well, the good news is, this Committee now has passed it. So we have seen bipartisan support here as one of the fixes we need here to more effectively manage our forests.

Thank you.

The CHAIRMAN. Senator Cortez Masto.

Senator CORTEZ MASTO. Thank you, Mr. Chairman.

Let me say, this hasn't always been the case, but I have seen more collaboration amongst the agencies when it comes to wildfire, and this Commission is a great start. Thank you. I have to also point out to the Chairman—he may not know this—just last year,

we opened our first sawmill in Carson City. It is a collaboration with the Forest Service—thank you so much—and Tahoe Forest Products and Washoe Tribe of Nevada. And it's going to have a major impact on wildfire management in that area between California and Nevada, if you know where Tahoe is, which is key for us. And literally because of the Caldor Fire, which we all know was horrific in that area, this sawmill is now taking the wood from that fire and creating a local market for green and burned logs as well. So it's going to be key to our fire management in that area. That sawmill is the first that has opened in centuries in this area. So I thank you for that collaboration. It's key for Nevada and California.

Let me jump to a housing issue, which we have touched on but really haven't focused on. I know the appropriations package that we passed last week extended the firefighter salary. Thank you very much. I think it needs to be permanent, and we should be working on that. But here is what I know. I was just with our firefighters, both in Reno, looking at urban interface wildfires, as well as in our forests, in Lamoille Canyon. And one of the things I heard from our incredibly courageous firefighters is the challenge to retain them because of a lack of salary, a lack of benefits, and housing. Housing is also an issue for so many of our firefighters, and I would hate to say that we are losing them to this noble profession because we don't have housing for them.

So, I guess my question for Under Secretary Harrell is, what are the solutions? What should we be focusing on to address the housing needs as well for our firefighters?

Ms. HARRELL. Thank you for raising this issue, Senator. It's incredibly important for our workforce. We know the impacts the lack of available and affordable housing have for our ability to retain, recruit, and have the comprehensive workforce we need, and it's a strain on our employees. The Commission made a number of specific recommendations, including Recommendation No. 102, that would highlight the ability to provide support for our workforce to help pay for housing, to be able to invest in housing facilities, to be able to waive fair market value, to be able to create partnerships with local community housing partners, and a number of other really important changes that will help address this challenge for our employees.

Senator CORTEZ MASTO. I appreciate that. And for my colleagues, thank you so much. I know we all have housing issues in our community, but this is one area where we are talking about housing for firefighters, but it's housing for our workforce in general, and we have other committees, from the Senate Finance Committee to the Banking and Housing Committee that I am getting ready to go to now to talk about necessary housing. So this really is a comprehensive issue that impacts so many in our communities, as you can see, touching on just this very Committee and the issues we are facing. So I am hopeful we come together as Congress to pass bipartisan housing legislation that will benefit our firefighters as well.

I thank you, and thank you all for the incredible work. I know our State Forester was on the Commission as well—Kasey KC—she is fantastic. She is somebody that I talk with amongst all of our

firefighters to really address these issues. And I will say, a lot of the work and legislation I have is based on my conversations with all of our firefighters. And they really echo what you have in the recommendations. So thank you for your great work.

One final area I just want to touch on is—and it's the same issue—how do we address the salary and keeping it permanent? And let's talk more—it's not just salary, it's benefits, right? It's hazard pay. It's so many things that we deal with because now we are having wildfire seasons that are happening all year long, and they are hotter, and we need that workforce. What else should we be thinking about in Congress to support and keep and retain that workforce? And I guess, either Ms. Harrell or Ms. Mooney, I am going to talk to both of you.

Ms. HARRELL. Thank you, Senator, absolutely, we need to be able to pay our wildland firefighters what they deserve. Those pay increases need to be permanent, and we appreciate the action to extend the supplemental pay and look forward to working together to make those pay increases permanent. And our employees need the benefits that will ensure their long-term well-being, including retirement, including housing, including physical and mental health investments. The Commission made a number of recommendations along those lines, and they are incredibly important.

Senator CORTEZ MASTO. Thank you.

Ms. MOONEY. We are in full alignment on this for a permanent fix to the pay situation, and also, housing is huge. We have to make sure that we attend to all the needs—health and well-being. USDA and Department of the Interior have a program going, funded by the Bipartisan Infrastructure Law. Our workforce, it is "mission first, people always," and that is the way we think about it. Thank you.

Senator CORTEZ MASTO. Thank you.

Thank you, Mr. Chairman. And I am going to submit just one question to our federal partners here from the Tahoe Utility Partners regarding water needs and for water suppression. Thank you.

The CHAIRMAN. Senator Hawley.

Senator HAWLEY. Thank you, Mr. Chairman. Thanks to all the witnesses for being here.

Ms. Harrell, if I could start with you, I want to come back to the topic of the old-growth forests and the new national forest management plan that Senator Barrasso was talking with you about a little bit ago. As you probably know, hopefully, my state is home to the Mark Twain National Forest, which encompasses about a million and a half acres in the State of Missouri. We are very proud of that. It's an important part of our state's natural resources. Let me just ask you, what will this new management plan mean for the Mark Twain National Forest? How many acres will be banned or restricted from logging?

Ms. HARRELL. Thank you, Senator. So the proposed action had a scoping notice, and we just received public comments. So we are examining those public comments. However, I would like to highlight that the intent of the old-growth strategy is to enable proactive stewardship in order to be able to ensure that old-growth conditions can be present on the landscape. And that very much re-

flects the fact that wildfire is one of the most significant risks to those conditions.

Senator HAWLEY. So will there be any restrictions on logging in the Mark Twain National Forest as a result of the plan?

Ms. HARRELL. Well, the scoping notice in general calls for proactive stewardship, which does not prohibit harvest in old-growth stands. It is intended for ecological restoration purposes.

Senator HAWLEY. Okay, I just want to be clear, because this, as you may imagine, this is subject of considerable interest to farmers and others in my state. The Missouri Farm Bureau has written you a letter on this subject, so I just want to be clear. Your testimony is that there are not going to be any bans or restrictions on logging, any new ones, in the Mark Twain National Forest?

Ms. HARRELL. The proposed action highlights the need for proactive stewardship for ecological purposes. So harvest——

Senator HAWLEY. Yes, I am hearing you say the phrase, but can we just get down to——

Ms. HARRELL. Yes. Yes.

Senator HAWLEY. I am asking you. I don't know what that means and neither does any farmer in my state. So will there be bans or limits on logging in the Mark Twain National Forest as a result of this plan?

Ms. HARRELL. There would not be bans or limits on logging for ecological purposes.

Senator HAWLEY. Okay, so would there be any new limits on logging or timber harvesting in the Mark Twain National Forest as a result of this new management plan?

Ms. HARRELL. I will have to get back to you specifically about the Mark Twain National Forest, but the policy—and the policy is still being developed—but what the policy currently describes is the need for proactive stewardship for ecological purposes, which includes timber harvest.

Senator HAWLEY. Well, my understanding is the plan bans logging in areas of national forest that are classified as old-growth forests and limits logging in areas that are classified as mature. The Missouri Farm Bureau, as I mentioned, wrote you a letter in February, actually, of last year, with concerns about the proposal. Have you responded to them?

Ms. HARRELL. I will have to get back to you on the status of the response.

Senator HAWLEY. Well, what they are concerned about is the decline in timber harvest revenues and what that will do to public schools in the Mark Twain region that we depend on in the State of Missouri. They are concerned about the number of forest acres that will be banned from logging. They are concerned about the ability to adequately manage the threat of wildfires in the forest under this rule. So what is your response to all of those concerns?

Ms. HARRELL. My response is that we will still be able to manage those areas for risks that are present in the forest.

Senator HAWLEY. So we are not going to see a decline in revenues for public schools as a result of this plan?

Ms. HARRELL. Senator, I will have to get back to you on this specific response to the question.

Senator HAWLEY. Okay, I would appreciate it, and I would appreciate a response to their concerns. As I said, they wrote you over a year ago. This is very significant concern to my state. I mean, the Missouri Department of Agriculture estimates the forest products industry contributes $10 billion to the economy of Missouri—$10 billion—and supports 46,000 jobs. That's a lot of jobs in my state. That's a lot of working people. And a lot of people depend on the public schools in the Mark Twain region that are funded by timber harvest revenues. So I want to make sure kids go to school, that our schools stay open. I want to make sure that we don't lose jobs. I don't want any jobs lost, particularly not 46,000 jobs. I don't want to see revenues from my state go down. I don't want to see the State of Missouri get left behind because of some new plan by your Administration. Does that make sense?

Ms. HARRELL. Yes.

Senator HAWLEY. Okay, so, you are going to get me responses. You are going to respond to the Farm Bureau's letter and copy me and then you are going to get me responses about the effect on revenues for public schools, the number of acres that will be banned and restricted from logging, and the ability to manage wildfire threats. Yes?

Ms. HARRELL. Yes.

Senator HAWLEY. All right. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

And now we have Senator Heinrich.

Senator HEINRICH. Ms. Harrell, I am going to try to put some of what you said about the old-growth strategy in English, and I want you to respond as to whether I am off base here. The old-growth strategy isn't about a ban. It's about how we manage to create the conditions that lead to more old-growth, fire-resistant stands in our forests. So in the example you gave—the sequoia example—it was about removing small-diameter trees and ladder fuels so that those older, more mature, carbon-sequestering, habitat-producing, fire-resistant trees could actually be more resilient in the face of fire. Is that why we are doing this?

Ms. HARRELL. Yes, Senator.

Senator HEINRICH. Okay, thank you.

Ms. Harrell, I want to talk a little bit about the Hermit's Peak/Calf Canyon Fire in northern New Mexico. One of the things my constituents have really struggled to navigate is just the sort of maze of emergency response and recovery programs when USDA and DOI and FEMA and all these agencies try to work together. And I kind of wish FEMA was here today, because they are such a big part of that, and they are struggling—I will be very blunt—they are struggling to become a fire response management agency. They do storms well. They don't do fires well yet. But how can we better coordinate the federal response and recovery work for these communities—the landowners and the businesses—who are impacted by these catastrophic wildfires?

Ms. HARRELL. Thank you, Senator.

I first want to recognize the impacts of the Hermit's Peak/Calf Canyon Fire to communities in your state. It is really important that we make it easier for communities to navigate all of the dif-

ferent programs involved with post-fire recovery. The Wildfire Resilience Interagency Working Group is working right now to make it easier on the federal side to coordinate and access those programs, and the Commission similarly made recommendations to that effect. I know we are working closely with the state to provide resources, and with FEMA to provide resources to communities in New Mexico.

Senator HEINRICH. We have got a long way to go, but we look forward to working with you on that. I think we have done a good job getting the funding in place. We need the funding to flow to the folks on the ground.

Ms. Mooney, the Commission strongly, and you have reiterated—super-support for permanent pay increases for wildland firefighters. We made an incremental step toward that in the Interior Appropriations bill last week, but that expires in October. And so, it needs, clearly, to be permanent. I want you to talk a little bit about how the uncertainty—the non-permanence of that—impacts your Department's ability to recruit and retain fire personnel. It seems to be a big bottleneck.

Ms. MOONEY. Yes, there is no question that it impacts our ability to recruit and retain personnel. Everyone is looking for certainty, and we need that stable, sustained funding over time. We share the concerns about this pay cliff. The specter of it will return in 2025 without Congressional action and only reinforces the fears that wildland firefighters currently have about our support and our commitment to their careers that are needed. So only a permanent fix can take care of that, and we urge Congress to authorize permanent comprehensive reform.

Thank you.

Senator HEINRICH. Yes, we need to send a clear signal to those firefighters. And I would just urge all of my colleagues—this is something we need to get done once and for all.

The Office of Personnel Management—and this is for you again, Ms. Harrell—published revised classification standards for a new wildland firefighter occupational series in June 2022. The Forest Service and Department of the Interior were supposed to have implemented that new series by June 2023, almost a year ago. DOI has begun posting openings using their new position descriptions. Why is the Forest Service not there yet?

Ms. HARRELL. Thank you, Senator.

We are continuing to work to implement the series, and we have a significant firefighter workforce. We really want to ensure employee and union engagement on implementation so that we can get it right. So we are currently working to complete classification of the positions, and our goal is to begin advertising this year.

Senator HEINRICH. Great.

Ms. McDonald, did you mention the Emergency Watershed Protection Program?

Ms. MCDONALD. That's correct.

Senator HEINRICH. Can you talk a little bit about how we fund that? Because we kind of fund it on an as-needed basis, usually an emergency supplemental package. How would you like to see that funded?

Ms. MCDONALD. Yes, thank you for the question, Senator.

The Commission recommends sustained and dedicated funding to the Emergency Watershed Protection Program so that communities are able to apply for that funding. We also recommend using—or the ability to use that funding across boundaries—a cross-jurisdictional, cross-boundary approach that the Commission recommends.

Senator HEINRICH. Yes.

Ms. MCDONALD. We would like to see that extend into the EWP program as well. And that dedicated funding will enable communities to act quickly in the post-fire phase.

Senator HEINRICH. I would love to see that as well because, Chairman, that was a program that the entire New Mexico delegation had to fight to fund immediately after Hermit's Peak/Calf Canyon instead of being able to draw from it as events were taking place.

The CHAIRMAN. Thank you, Senator.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman. Thank you all for being here. And we worked pretty hard, I think, in the Interior Appropriations Subcommittee. I am the Ranking Member on that and I think we recognized the situation that we are in with our wildland fires and firefighting capacity, putting $6.1 billion in wildland firefighting for both DOI and Forest Service. That is a $480 million increase. I think that expresses that priority. I agree, we need to be figuring this out, because we can't have this looming cliff, but I do think it was important that we were able to avoid that 50 percent, basically that 50 percent cut in salaries. That's not a very good incentive. That doesn't give certainty to the folks that they need, but it was a tough budget year. It's going to be harder in 2025. I think you know that. But one way that we can try to knit this all together, using the resources that we are working on here, I think is to better utilize our industry partners and their workforce, their skills, their experience, and leverage that to make our federal interventions on wildland firefighting more efficient, more economical.

So, a couple of questions for both Ms. Harrell and Ms. Mooney. You submitted your annual budgets to the Hill yesterday. I am asking you what is the most important budgetary item to address wildland fires that was not included in your budget request. I know what's in your budget request. I don't want you to reiterate that. I know that there is more. Can you please share?

And please don't tell me that you are going to get back with me on it. These are important issues. Nobody is going to hold it against you if you say we were not able to get this one on the table. We are trying to figure out what other tools in our toolbox we need here and help us prioritize.

Go ahead.

Ms. MOONEY. Well, I will just start. You know, the Commission's recommendations came out at the end of September, following our budget submission.

Senator MURKOWSKI. Right.

Ms. MOONEY. And we do have language in there requesting—we have made some requests related to the Commission's report and findings, but certainly we have outlined——

Senator MURKOWSKI. Can you give me what your top two priorities are from that recommendation, again, that were not anticipated at the time that you had to submit budget submissions?

Ms. MOONEY. This is a comprehensive report. It's going to be an iterative process. I don't——

Senator MURKOWSKI. You are not helping me prioritize here.

Ms. MOONEY [continuing]. Want to choose among those. So I will——

Senator MURKOWSKI. No, no, no, I get it. But——

Ms. MOONEY [continuing]. Give it some thought.

Senator MURKOWSKI. You've got to help me. We are moving right now on FY25, right as we speak. And so, me and my team can kind of root through this and figure out what we might think is most important, but that's why we bring you here, to give us some direction as to what this Commission and your agencies believe could be the most effective tool going forward. We have got your budget request, but as you have noted, that came out before the recommendations from this Commission. So in my view, time's-a-wasting, and I don't want to miss the mark here.

Ms. Harrell, can you give me anything more concrete?

Ms. HARRELL. Yes, Senator, thank you.

The FY25 budget request is in alignment with the Commission's recommendations. The Commission recommended an interrelated set of recommendations, including significant investment at the scale needed for being able to work across all of the areas in the Commission's report. It included some really important recommendations around workforce investments and benefits. It also included recommendations around authorities for being able to deploy funds more effectively across landscapes to be able to meet needs where they are and to be able to work with partners, including——

Senator MURKOWSKI. So within that, what role do you feel that our timber industry partners play? Again, we can dump more federal money, but you have partners out there as part of the community that can help you with some of this, whether it's on the thinning side, you know, dealing with some of the fuel that is out there. Where does that fit in what you are talking about here?

Ms. HARRELL. That fits squarely in the Commission's work. Partnerships and being able to collaborate in a multijurisdictional way were at the heart of the Commission's recommendations, and there are a number of recommendations to improve authorities for that.

Senator MURKOWSKI. And do you think that your proposed rule on the old-growth harvest is going to have any impact on our industry partners on their availability to remain as these assets as you are working to reduce wildland fires?

Ms. HARRELL. The old-growth strategy, again, is about what remains on the landscape and how we get there, and our timber industry partners are going to be very much a necessary part of how we achieve resilience across the landscape.

Senator MURKOWSKI. Mr. Chairman, I am out of time, but I would like to follow up both in my capacity here on the authorizing committee, but also in my capacity as an appropriator in this space. So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

And now we have Senator Hirono.

Senator HIRONO. Thank you, Mr. Chairman. Thank you all for your testimony, and Ms. Mooney, it's good to see you, as always.

I am looking at some of the recommendations of the Commission, and I note your Recommendation No. 1, although I understand that you are not necessarily prioritizing these recommendations, but your number one recommendation here is that Congress should establish a Community Wildfire Risk Reduction Program. So experiencing the horrendous wildfire on Maui, and the family of federal agencies, as I describe them, were present, and that involves a lot of agencies. And, at this point, over a thousand federal employees have been involved and engaged in the efforts to remedy the situation. So I am just wondering why, in this first recommendation, that there aren't the other agencies that are also involved in what needs to happen after wildfires? I am thinking of the EPA, DOD, DOT, SBA. Any particular reason that that those agencies not included in the first recommendation? Anybody?

Ms. HARRELL. Thank you, Senator.

The recommendation for the Community Wildfire Risk Reduction Program was really important to the Commission. The agencies that were identified there, I think, were intended just to be the steering committee, but very much understanding and appreciating that there will be a larger role for more agencies than those identified specifically in the recommendation.

Senator HIRONO. So the recommendation is that Congress should establish such an interagency group. Why can't an interagency group be established some other way? Does it require Congressional action?

Ms. HARRELL. A number of the elements in that recommendation would require Congressional action to better enable investments in the built environment and increase ignition resistance.

Senator HIRONO. I think that it is very clear that after a wildfire there are a lot of people involved in helping us to address all of the issues, so I would be very interested to know what kind of Congressional action, specifically, would be needed.

One of your other recommendations, and this is for all of the witnesses—the native seed restoration. Hawaii has lost 70 percent of its native forests within the past century and, however, we have found in Maui that there are not enough native seeds available to adequately regenerate the burned landscapes. So this is something that is a need, not just in Hawaii, but I would say probably in other states. So what can we do to enable states to be able to restore their landscape with native seeds? And in fact, I do have a bill that would establish a National Interagency Seed and Restoration Center, and I am wondering if that would be helpful.

Any of you want to respond to the need for native seeds?

Ms. Mooney.

Ms. MOONEY. I can start with that. Thank you, Senator.

It is important to use native seeds in restoration efforts. A lot of the—and as you know, in Maui, we had the invasive species that helped fuel the fire. So we are working on that as well, but work expanding the availability of those locally adapted native seeds and seedlings that accelerate the recovery of burned areas is in the early phases, but will result in accelerated fire recovery to federal

efforts in Hawaii, Alaska, the Great Basin, Mohave Deserts, and the recovery of iconic sequoias. We know it's important, not only to complete these vegetation management activities, but maintain them. And we put priority on that and we would be delighted to continue working with you on technical assistance for your legislation.

Senator HIRONO. Thank you.

Ms. Harrell, you have been asked about the firefighting aircraft that is available. So in your report—the aviation report—the State of Hawaii and U.S. Pacific territories have a very limited supply of aircraft with firefighting capabilities. Do you know how many aircraft the U.S. Forest Service currently has in Hawaii and the U.S. Pacific territories with firefighting capabilities, and are you considering increasing that number?

Ms. HARRELL. I will have to get back to you, Senator. We don't currently have a national forest in Hawaii, but we work very closely across with a number of partners on deploying aviation assets, and we will get back to you with a specific response.

Senator HIRONO. Yes, even if there are no national forests in Hawaii, though, I take it that you have some aircraft with firefighting capabilities in Hawaii? Or not?

Ms. HARRELL. I will have to get back to you, Senator. I apologize.

Senator HIRONO. Okay, thank you.

Since there are no national forests in Hawaii—I am running out of time—but I wanted to ask each of you, and perhaps you can respond to me later in writing—you know, what can states like Hawaii, that do not have a federal presence, what suggestions do you have for the state, counties, and private sector to be much more aware of what they can do to reduce and mitigate wildfires?

So can you respond to that?

Ms. Mooney, you look as though——

Ms. MOONEY. Yes, yes, sorry, no.

Senator HIRONO [continuing]. You have something to say right now.

Ms. MOONEY. One of benefits of being part of both the Commission and the Wildland Fire Leadership Council, we worked together on a cohesive strategy to address the needs across all levels of government. So we look forward to working with the State of Hawaii. One of the big, big pluses that the Chairman had mentioned earlier on is that collaboration and consensus building was key to this Commission. And so, we look forward to working with your state to make sure that the state has what it needs. Thank you.

Senator HIRONO. Thank you, Mr. Chairman.

It's clear that these kinds of natural disasters are occurring just about in every state, and that the recovery efforts take time and a lot of resources. For Hawaii, a billion dollars has been committed, but we know that is not going to be enough. Thank you.

The CHAIRMAN. Thank you, Senator.

Senator Hoeven.

Senator HOEVEN. Thank you, Mr. Chair.

Secretary Harrell, as you know, innovative solutions like the Joint Chiefs program at USDA, a partnership between the Forest Service and the Natural Resources Conservation Service (NRCS), helps support forest and grassland restoration projects across pub-

lic and private lands. Along with Senator Bennet, I have worked to enact legislation based off our Joint Chiefs Landscape Restoration Partnership Act, which authorizes and provides enhanced resources to the partnership. Do you support the Commission's recommendation to authorize and fund post-fire preparedness and recovery efforts under the Joint Chiefs program?

Ms. HARRELL. Yes, Senator. The Joint Chiefs program is incredibly important.

Senator HOEVEN. For the grasslands, which are in my state and other states throughout the Midwest and West, obviously, forest fires are a serious issue. Will you commit to work closely and coordinate with the ranchers who are on those grasslands and make their living ranching on the grasslands?

Ms. HARRELL. Yes, Senator.

Senator HOEVEN. For both Secretary Harrell and Secretary Mooney, obviously one of the things that is creating bigger and more forest fires is the amount of fuel out in the forests and in the grasslands and other areas, and there is general agreement that we have to be proactive in managing that fuel load. Do you agree that we should be proactive in addressing forest and grassland health, and what immediate steps are your respective agencies taking to address that specific challenge—fuel loads?

Ms. HARRELL. I can start. Yes, we agree that we need to be able to accomplish fuels treatments at increased pace and scale. That is at the heart of the Forest Service's Wildfire Crisis Strategy. This last year we were able to treat 4.4 million acres, which is an agency record. The Commission highlights the importance of being able to build on the investments from the Bipartisan Infrastructure Law and Inflation Reduction Act and allow us to be able to do more at the scale and pace we need.

Ms. MOONEY. And at the Department of the Interior, we believe that more tools help us reduce risk. Reporting acreage, for us, it is an important quantifier of the workload fuels reduction work needed, planned, and accomplished. An improvement in recording metrics would be to augment acre reporting with more information on outcomes, and that is what we are focused on here. Interior's treatment goal for this year is two million acres, which is 30 percent above last year.

Senator HOEVEN. For both of you, do you agree that grazing activities are an effective management tool and contribute to reducing wildfire risk?

Secretary Harrell.

Ms. HARRELL. Yes, Senator, grazing activities can be an effective fuels management technique, and the Commission included recommendations on that effect.

Senator HOEVEN. Exactly, and you agree with those recommendations?

Ms. HARRELL. Yes.

Senator HOEVEN. Thank you.

Secretary Mooney.

Ms. MOONEY. I agree as well, and we are fully aligned.

Senator HOEVEN. And what steps are each of you taking to empower grazing in line with the Commission's recommendations?

Ms. HARRELL. I think one of the things to highlight is that the Commission focused on the need to be able to work across jurisdictional boundaries and work in partnerships with private landowners, including working landowners.

Senator HOEVEN. That goes right to my first two questions. I am so glad that you emphasized that. Maybe you did it on purpose, but if you did, it was great.

Ms. HARRELL. Thank you, Senator. Yes, it's at the heart of the recommendations and at the heart of how the Forest Service is approaching this work. We need to be able to work across jurisdictional boundaries. We need to be able to work with states, with tribes, with local communities, and with many other partners, including working landowners.

Senator HOEVEN. That was such a great answer, I should stop right there because that was—you nailed it, you know, that was a perfect ten or whatever. But I do have to ask, the last question for both of you is under the NEPA, you know, when we reacted, some of the reforms to NEPA in various legislation, we tried to get at these delays. In some cases, five to seven years for these environmental reviews, and that's holding up action that we have just been talking about that you all need to take. And you know, we tried to get an EIS down to, I think it was two years, and an EA down to one year. And we have got to find a way to compress that evaluation cycle so we can get more affirmative action like we are talking about in terms of, you know, addressing these challenges with the wildfire.

So what are you doing to get down to that reasonable time frame for EIS, maybe two years, like we have tried to do in legislation, and one year on the EA? For each of you.

Ms. HARRELL. Thank you, Senator.

One of the things we are doing is investing resources we received through the Bipartisan Infrastructure Law in standing up regional planning service groups to be able to help increase efficiency, and we are also really working to think about how we can staff interdisciplinary teams and invest in the training needed to do planning effectively.

Senator HOEVEN. Clearly, you can be more effective if you can get after these challenges quicker, right, Secretary?

Ms. MOONEY. At Interior, we are committed to improving our NEPA efforts and the time frames that it takes us at Interior to complete these reviews. The Department recognizes the importance of wildfire risk reduction projects and the need to start and finish them quickly. We are making sure that we have the staff and resources in place to more effectively coordinate this and be even more responsive to local needs and concerns.

Senator HOEVEN. I think both the Chairman and the esteemed Senator from Maine, who are here with me, would agree that getting at these things quicker will make you more effective. Of course, they were both—well, all three, Hickenlooper too, they were all governors, so I——

The CHAIRMAN. You are too.

Senator HOEVEN. Yeah, you know, I have great respect for their wisdom. Thank you.

The CHAIRMAN. We have got all governors here right now.

Senator KING. One former governor is worth six ordinary senators.

[Laughter.]

The CHAIRMAN. Senator Angus King.

Senator KING. Thank you, Mr. Chairman.

First, I want to talk about the issue of firefighters because we are in danger of losing our firefighting force, and imagine your house catches on fire and you call the fire department and nobody answers the phone. I get thousands of communications in my office. I got a letter in the last couple of weeks, and I want to read portions of it, because I think it really outlines this problem. This is from a wildland firefighter:

"I have stood in poor people's backyards with the words, 'We don't have insurance,' of the homeowner ringing in my ears as my crew is in a fist fight with Mother Nature trying to hold our line. I have worked until every cell in my body screams to quit. My legs feel like jelly, and I get that thousand-mile stare into nothing and then work another 14 hours. Exhaustion does not even describe it. We have, each and every firefighter across the West, and in the United States as a whole, quickly accepted two realities. You work this job long enough, and one of your friends will die or you will have a close call yourself. Regardless of it all, the American federal firefighting force is the most capable, most committed, and toughest in the world. They are ferocious in their commitment, capable in their execution, accepting the possibility of an unspeakably painful death from hazards across the board every time they walk out the door. I know that you know of our pay and benefits issues, but what I am not sure you know is how many of us are hanging on by the very tips of our fingers. There is great remorse spoken between the firefighters on a hill you have never heard of, of eating cold MREs as they bat around the idea of how much more they can take. Some speak quietly to their saw partner about how they are being evicted and don't have anywhere else to go. Others stare off and say this will have to be their last season. A majority curse the politicians in Washington. The latter so much so that in Montana we were asked to write out a last will and testament, and we all wrote in, 'don't let any politician stand over my casket and preach false hope of change.' This was written as gallows humor, but it's a joke that's all too true to us. The stakes are that as the experienced firefighters are drummed out, we don't have depth to replace them. I fear that if things don't change, we will deplete one of the nation's great resources. Suddenly, there will be an uptick in crew fatalities, and in hours, and whole cities will be turned into a moonscape. Many will ask, bewildered, across the nation and in Congressional hearings, what happened? But we know, and I think you do too."

That is what we are talking about here. This isn't just typical "let's have a raise." This is about maintaining one of the great assets, as he says, that this country has, and we are in danger of losing that asset. So we have got to understand what these folks are up against. Most of us, when we sign up to do our jobs, we are just going to do the job. These people, when they put their name on the line, are literally putting their lives on the line for the rest of the country.

So Ms. Harrell and Ms. Mooney, we have got to address this and we have got to address it in a thoughtful way. I know we have got budget difficulties, but the alternative of what we are putting these people through and what we are subjecting the public to, if there is nobody there to answer the call, is unthinkable. So I hope that you'll work with us—the Administration will work with us—to really find a satisfactory solution that amply rewards these people in proportion to the benefit that they are bestowing upon the country.

I want to now turn to a question. In 1986, something like 13 billion board-feet were harvested on federal land. Last year, it was like $2.6 billion. I believe that in addition to climate change, one of the things that is contributing to forest fires is a lack of cutting, is a lack of pre-commercial thinning, a lack of cleaning out the forests and the forest floor. Ms. Norris, by the way, one of my best friends in Maine is Sue Bell, who was the first female state forester in the country in the 1980s. I want you to know that you are standing on the shoulders of some pretty great people. But my sense is that a lack of clearing the forest is contributing to forest fire risk. Is that true?

Ms. NORRIS. Thank you, Senator.

Yes, that is true. Our forests are dense, and they are full of fuel. And because of that, yes, that adds to our wildfire crisis.

Senator KING. And one of the environmental groups, a national environmental group, educated me that a growing tree sequesters more carbon than a mature tree. And I would say, I don't know about other states, but in Maine, there are more trees, there is more woods in Maine today than there was in 1846 when Henry David Thoreau climbed Mount Katahdin. The forests have actually expanded, but if we don't cut, we are actually diminishing the carbon sequestration and we are increasing the fire damage. Is that true?

Ms. NORRIS. Yes, and when you do harvest that timber and put it into tables——

Senator KING. It's sequestered.

Ms. NORRIS. It is.

Senator KING. That's right.

Ms. NORRIS. Unlike when we have a fire and it burns and gives off carbon.

Senator KING. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

And now we have Senator Hickenlooper.

Senator HICKENLOOPER. Great. Thank you, Mr. Chair. Thanks to all of you for being here. I appreciate the distance and the time involved in coming to these meetings, but this is something that is, certainly to this Committee, very close to our heart.

Just because I am always in favor of the home crowd, let me talk with Ms. McDonald first. It's always great to have a Coloradan testifying before the Committee, especially someone from Denver Water, which I know so well. Denver Water has a five-person board appointed by the mayor with no approval process. So the mayor gets to really set a direction for, not just the city of Denver, but for the state and how we deal with some of these issues. And we have been facing not just wildfire, but really megafires, like many

of the western states—you know, Cameron Peak, Pine Gulch, Troublesome. I can give you a whole list of fires and these are, you could say these are too-harsh reminders of climate change in the way we are seeing dramatic changes in precipitation patterns.

So Ms. McDonald, as a watershed scientist, can you just describe a little bit of what the impact of the megafires is on water supply, first?

Ms. MCDONALD. Yes, absolutely, thank you for that question, Senator.

High-severity impacts water supplies through every phase—through source water collection, through the treatment of that water, and then the distribution of the potable water supplies out to our communities. Typically, the greatest impact to our water supplies actually happens after the fire occurs. When you have any rainfall or snowmelt that falls on this fresh burn scar, you are going to mobilize all that newly loose sediment, ash, and debris. In the West, that is carried downstream and typically deposited in a drinking water reservoir, which can cause a couple of things—it reduces our storage capacity in those reservoirs. It can clog our conveyance infrastructure and create operational challenges. But maybe most relevantly, it creates significant water quality degradation when that water interacts with the sediment and the ash, which can make it challenging, or at times, even impossible to treat that water.

Senator HICKENLOOPER. Right, absolutely.

And then, the other thing is, we know that the Colorado River's future reservoir operation is certainly top-of-mind for many Westerners, more and more nationally now. Why should forest health be up there on an equal level?

Ms. MCDONALD. Yes, absolutely, the Commission had robust discussion around this, and one of the findings of the Commission was, with the increasing demand for water resources across the nation, protecting our existing supplies that we have from the threat of wildfire is critical. I think it's even more so in the Colorado River Basin, like you said. And most of the discussions, as you mentioned, are really around the demand side—the quantity side—and we neglect, sometimes, the water quality side—the supply side—of the Colorado River discussions. Improving the resiliency of the forest health gives us a double benefit. The forests can be our first natural filter of that water supply if they are healthy, functioning ecosystems, or they can expose that water supply to the contaminants that lead to water quality concerns if there is a burn scar in that landscape.

Senator HICKENLOOPER. Exactly. And we ignore that at some peril, and it's the diminishing capacity of the reservoir, as you alluded to earlier, described earlier. It's, you know, those two go together, and such an obvious cost-benefit for the investment is—you get so much more benefit.

Mr. Desautel—I forgot the pronunciation—is it close? With a name like Hickenlooper, I am use to mispronunciation of people's names. And then Ms. Norris, I will ask you the same question. And you know, if you go to the whole gamut, from the removal of hazardous fuel on federal lands to providing the native seedlings for the post-fire recovery, this is all about partnerships, right, between

the federal agencies, between states, the tribes. You know, this collaboration is critical for addressing the issues you are all here discussing. So can you guys talk a little bit about the unique expertise and capabilities that tribes and states bring to the table when it comes to prevention, response, and then, you know, recovery?

Mr. DESAUTEL. So I think when you look at partners, a lot of times they have strengths that the Federal Government doesn't have, or we have flexibilities that they don't. So we serve as a testing ground for approaches that aren't typically seen on federal land. So if we can really look across landscapes, across boundaries, to apply what pre-fire treatment should look like to create resiliency on the landscape, that is best handled through a very collaborative approach with lots of perspectives in the room, where there have been successes and failures that we can learn from as a group, collectively.

Senator HICKENLOOPER. Right.

Ms. NORRIS. Thank you, Senator.

I believe states can really bring out an aspect with, when we are talking specifically about fuels mitigation, cross-boundary project work. We are that interconnection between private landowners and states, as well as our federal partners. We communicate to both the Forest Service and the Bureau of Land Management, and we bring everybody together in the room and say this is where we are going to work on the headwaters of the Colorado together. We are going to even work with our other state partners and do a collaborative project with Colorado and Wyoming, or South Dakota and Wyoming. And I think that is—the key is interagency coordination because it's what is best for our state.

Senator HICKENLOOPER. Right. Well said, and all of us former governors that were up here recognize that the Governors' Association collaborates at a level that very few other political denominations work on at that level. So we really appreciate it.

If the Chair will allow me to ask just one last question for the two of you and maybe for all of you. How can Congress—what should we be doing to build upon and make sure we get maximum benefit from those partnerships?

Mr. DESAUTEL. Well, if I could start, I think the one thing that we haven't mentioned today is really capacity—that a lot of our limitations are workforce-related. So we see the huge investments that were made in the Infrastructure Law and Inflation Reduction Act, but with that huge addition of funding didn't come a huge addition of staffing. So we are really limited on the amount of work that we can do in any given time. So we really need to focus on how we consistently build that capacity through time to do this work at scale over decades, not just the next five years.

Senator HICKENLOOPER. That's well said.

Ms. NORRIS. Thank you, Senator.

For me, the number one priority is Recommendation No. 24, which is providing federal funds across boundaries. If we were able to utilize those funds in a way to enhance, increase our pace and scale on projects that would be on other lands outside of federal lands, we believe we could make a major difference.

Senator HICKENLOOPER. Awesome. Anybody else? If I can indulge? Anybody else want to answer that question? Put a price on what should Congress be doing?

Ms. MCDONALD. I would just add really briefly, we have a number of recommendations related to access issues as well. Communities that can't access the federal funds because of match requirements, that they can't post the 25 percent match requirement and funneling money to the collaboratives and cross-boundary landscapes as well. So the access recommendations could also be critical to that.

Senator HICKENLOOPER. More flexibility. Got it.

Anyway, thank you all.

The CHAIRMAN. Let me just, again, thank all of the witnesses for joining us this morning for the discussion. I think it was very informative, and as you can tell, we have an awful lot of interest, even though I am from the eastern part of the country and most of my Democratic colleagues and a lot of my Republican colleagues are from the western portion, where it's quite prevalent. The problems they face—and they don't anticipate—they know it's going to happen. They just don't know how severe it is going to be. So we are all interested in trying to change the direction in how we prevent this from happening and spreading, and there is so much management, and when some catastrophic event, such as that—there should be ways to harvest, there should be ways to replenish and try to prevent it from happening again.

All members will have until the close of business tomorrow to submit additional questions for the record.

If there's nothing else to come before the Committee, we stand adjourned.

[Whereupon, at 11:49 a.m., the hearing was adjourned.]

## APPENDIX MATERIAL SUBMITTED

**U.S. Senate Committee on Energy and Natural Resources**
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**QFR from 3/12 Senate Energy and Natural Resources Hearing**
**With Department Witness, Meryl Harrell, Deputy Under Secretary**
**Natural Resources and the Environment, USDA**

**Questions from Chairman Joe Manchin, III**

**Question 1:** The Commission's Aviation Equipment Strategy report noted that the "Interagency Wildland Fire Management Aviation Strategic Plan: Vision 2027" was released in draft form in 2017. The draft Vision 2027 plan indicated that the National Interagency Aviation Committee (NIAC) was awaiting results from the Aerial Firefighting Use and Effectiveness (AFUE) report before the Vision 2027 plan would be finalized. That AFUE report has been final since March 2020.

Based on the Forest Service's participation in the National Interagency Aviation Committee, when do you expect the Vision 2027 or similar strategic aviation resources planning document will be finalized? Since it has now been 7 years since the draft version of that plan, does the Forest Service expect that the Vision 2027 or similar strategic aviation resources planning document would extend further than 2027?

**Answer:** The Forest Service is partnering with the federal wildland fire agencies and the National Association of State Foresters to develop a national Interagency Fire Aviation Strategy (IFAS), which has broader interagency representation and investment than Vision 2027. IFAS incorporates the findings and recommendations from the Wildland Fire Mitigation and Management Commission's Aerial Equipment Strategy Report. To ensure a true picture of aviation capability, the IFAS has collected data from all the federal agencies and all state agencies that have fire aircraft that are available for interagency response. The IFAS group will continue to meet in the coming months and move the planning effort into the second phase, which is anticipated in 2025. The Forest Service anticipates that the IFAS will be a working document that is updated routinely to reflect the interagency needs and strategy.

**Question 2:** The Environmental Protection Agency (EPA) recently released regulations lowering the amount of acceptable air particulates, which could increase the administrative burden to conduct prescribed fire in some areas. Even though the EPA previously agreed to provide fire practitioners with new tools to make getting a permit easier, the regulations include no such tools.

Prescribed fire is by far the most cost-efficient means to treat acres at scale. How much more will it cost the Forest Service to conduct a prescribed fire if you need to get and prepare an exceptional event permit?

**Answer:** There has not been a significant increase in costs for the Forest Service to provide information needed for an exceptional event demonstration. An exceptional event demonstration is generally developed by the respective state or local air regulatory agency after the smoke event

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to demonstrate emissions in a particular place at a particular time qualify for exception. The Forest Service supports the process by providing needed data such as documentation collected and disseminated by Air Resource Advisors on wildfires and records that best smoke management practices used by prescribed burn implementors. The EPA did provide several tools around the time of the issuance of the Notice of Final Rulemaking for the revised PM2.5 standard. These tools, as well as ongoing collaborative efforts under the recent Federal Wildland Fire and Air Quality Coordination MOU, will aid states and local agencies in preparing these for wildland fire smoke events that impact Clean Air Act compliance.

**Question 3**: One of the unanimous recommendations from the Commission's report (Recommendation 147) was to provide more transparency into acres treated for hazardous fuels. Specifically, the recommendation was to provide the number of acres with improved ecological outcomes.

Is your agency working to implement this recommendation? Does your agency currently collect sufficient data to report treatments based on outcomes, rather than "acres treated" or "millions of board feet?" If not, what additional data is needed?

**Answer:** The Forest Service has worked hard to capture the completed work of staff, contractors and partners to provide accurate reporting that is available and transparent. Simply reporting acres under contract and completed does not tell the full story of the efforts to restore resilience, nor does it account for the impacts of treatments to reduce fire risk. We continue to learn the best ways to incorporate outcome-based performance metrics into our programs using the best available science. The agency currently has sufficient data and is working to incorporate that into science-based models. We are also working hard to prototype a new outcome-based metric for implementation in fiscal year 2025.

**Question 4:**
A) Does the Forest Service require logging operations personnel on National Forest System land to carry with them any fire suppression equipment? If so, what? Does the Forest Service require a logging crew to take any particular action if their personnel or equipment ignites a wildland fire?

**Answer:** All major contract types used by the Forest Service contain requirements for logging crews and equipment to carry fire prevention and fire suppression equipment during the fire precaution period noted in each specific contract. Fire prevention and suppression requirements vary by location and contract type.. These requirements have been coordinated with States and in most Regions there are MOU's in place to ensure equipment and response is adequate and consistent across ownership. Fire suppression equipment varies based on each situation, but generally includes a fire extinguisher on each piece of equipment, shovels, and pulaskis or double bit axes. Some locations require a 200–500-gallon capacity water truck/trailer with water pumps and fire hose. All fire suppression equipment must be kept in working order and immediately available in the working area. Fire prevention equipment such as spark arresters and mufflers are also required on all internal combustion engines. All major contract types used by

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the Forest Service contain requirements for logging crews to take *all reasonable and practicable action to prevent and suppress fires resulting from Purchaser's Operations and to suppress any forest fire in the Sale Area.*

B) Does the Forest Service currently train logging personnel on fire suppression activities?

**Answer:** There is no Forest Service timber sale contract requirement to train logging personnel on fire suppression activities or for loggers to maintain any fire suppression qualifications. Some states provide opportunities for forest industry workers to obtain fire suppression training or qualifications, and many loggers do maintain fire suppression qualifications and make their heavy equipment available as resources for fire suppression through contractual agreements with the agency.

C) How many trained personnel would be required, on average, to put out a small (e.g. 1 acre fire) in a remote area?

**Answer:** The number of personnel required to put out a small fire would depend on many factors to include environmental conditions, fuel loading, vegetative conditions, drought, or other weather factors, topography, etc. In addition, the ability to put out a small fire would depend on the type of equipment used as part of the suppression efforts.

D) How many logging operations are active on federal forest lands on an average day?

**Answer:** The number of active logging operations on National Forest System lands each day varies widely depending on many factors including time of year, weather, contract restrictions, lumber markets, and workforce availability. Based on our financial accounting system this could range between 500-1500 active logging operations with varying crew sizes during a given month, which does not necessarily mean that all of them are operating every day.

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**Questions from Ranking Member John Barrasso**

**Question 1:** In your testimony, you state, "We completed treatments on an agency-record 4.4 million acres nationally in Fiscal Year 2023."

a) Please share with the Committee a breakdown of those acres and the funding sources used to treat those acres. Specifically, we would like to see a state-by-state breakdown of acres treated by ownership. We would also like to see the total number of acres treated on National Forest System, state, tribal, and private lands.

**Answer:**

| Funding Source | FY23 Acres |
|---|---|
| Hazardous Fuels Program (Regular Appropriations) | 1,812,763 |
| Other Restoration Programs (Regular Appropriations) | 879,488 |
| Wildfire Meeting Objectives (Suppression Funded) | 615,172 |
| Non-Regular Appropriations (BIL, IRA & Disaster Supplement) | 586,640 |
| Cooperative Fire Programs to State Forestry Agencies (State Fire Assistance-SFA, and Community Wildfire Defense Grants CWDG) | 457,627 |
| Total | 4,351,689 |

USDA Forest Service Hazardous Fuels Program Accomplishments FY2023: Acres accomplished on National Forest System lands and neighboring lands by agreement or authority; and cooperative fire accomplishments managed by state forestry agencies occurring on state, private or Tribal land.

| State | National Forest System Acres | Cooperator Acres (State, Tribal and Private) | Total Acres |
|---|---|---|---|
| Alabama | 135,819 | 1,775 | 137,594 |
| Alaska | 4,504 | 0 | 4,504 |
| Arizona | 221,041 | 0 | 221,041 |
| Arkansas | 299,560 | 0 | 299,560 |
| California | 356,478 | 17,725 | 374,203 |
| Colorado | 88,299 | 13,262 | 101,561 |
| Connecticut | 0 | 20 | 20 |
| Delaware | 0 | 3,450 | 3,450 |
| Federated States of Micronesia | 0 | 6 | 6 |
| Florida | 289,226 | 6,573 | 295,799 |
| Georgia | 55,680 | 150,000 | 205,680 |
| Guam | 0 | 36 | 36 |
| Hawaii | 0 | 417 | 417 |

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| | | | |
|---|---|---|---|
| **Idaho** | 265,941 | 804 | 266,745 |
| **Illinois** | 18,605 | 11,725 | 30,330 |
| **Indiana** | 6,320 | 5,600 | 11,920 |
| **Iowa** | 0 | 5,000 | 5,000 |
| **Kansas** | 2,005 | 750 | 2,755 |
| **Kentucky** | 20,906 | 750 | 21,656 |
| **Louisiana** | 140,548 | 0 | 140,548 |
| **Maine** | 0 | 700 | 700 |
| **Maryland** | 0 | 1,500 | 1,500 |
| **Massachusetts** | 0 | 2,431 | 2,431 |
| **Michigan** | 24,079 | 2,650 | 26,729 |
| **Minnesota** | 27,677 | 885 | 28,562 |
| **Mississippi** | 203,354 | 5,912 | 209,266 |
| **Missouri** | 80,873 | 10,200 | 91,073 |
| **Montana** | 141,030 | 6,000 | 147,030 |
| **Nebraska** | 4,237 | 2,508 | 6,745 |
| **Nevada** | 28,721 | 690 | 29,411 |
| **New Hampshire** | 522 | 25 | 547 |
| **New Jersey** | 0 | 2,095 | 2,095 |
| **New Mexico** | 188,036 | 4,676 | 192,712 |
| **New York** | 3,076 | 475 | 3,551 |
| **North Carolina** | 48,150 | 1,049 | 49,199 |
| **North Dakota** | 10,562 | 200 | 10,762 |
| **Ohio** | 3,944 | 6,150 | 10,094 |
| **Oklahoma** | 23,790 | 2,344 | 26,134 |
| **Oregon** | 511,611 | 111,683 | 623,294 |
| **Pennsylvania** | 9,146 | 500 | 9,646 |
| **Puerto Rico** | 47 | 47 | 94 |
| **Rhode Island** | 0 | 2 | 2 |
| **South Carolina** | 98,978 | 4,250 | 103,228 |
| **South Dakota** | 56,947 | 510 | 57,457 |
| **Tennessee** | 43,898 | 0 | 43,898 |
| **Texas** | 157,749 | 13,985 | 171,734 |
| **Utah** | 148,626 | 450 | 149,076 |
| **Vermont** | 960 | 50 | 1,010 |
| **Virginia** | 11,727 | 175 | 11,902 |
| **Washington** | 75,767 | 21,615 | 97,382 |
| **West Virginia** | 9,078 | 200 | 9,278 |

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| | | | |
|---|---|---|---|
| **Wisconsin** | 17,526 | 35,702 | 53,228 |
| **Wyoming** | 59,022 | 75 | 59,097 |
| **Total** | **3,894,062** | **457,627** | **4,351,689** |

b) How many of the 4.4 million acres treated were paid for by state, tribal, or other non-governmental entities? Please provide a detailed breakdown of the non-federal funding sources used.

**Answer:** The 4.4 million acres reported by the Forest Service in FY23 were funded with federal dollars consisting of Forest Service annual appropriations, BIL and IRA funds. On National Forest System lands, over 830,000 acres, or 21% of activities were accomplished through partnerships. Activities implemented through State Fire Assistance and Community Wildfire Defense Grants accounted for approximately 460,000 acres on non-federal land. Activities implemented and funded with non-federal dollars by partners are not accounted for in the annual accomplishment reporting.

**Question 2:** In recent years, Congress has provided the Forest Service and Department of the Interior with billions of additional taxpayer dollars for wildfire mitigation efforts. Despite all of this money, we have yet to see a significant increase in the number of acres treated. During the hearing I asked you how is it that *timber harvests* remain below 2018 levels? In response, you said, "We are putting those dollars to good use. Last year the Forest Service had the greatest number of acres treated, 4.4 million acres, in the agency's history." Please provide a response to my question, which specifically addresses *timber harvest* levels.

**Answer:** Fiscal Year (FY) 2023 reporting shows that the Forest Service most recently offered and sold approximately 3.144 billion board feet on 551,144 acres. This was an increase from the 2.93 billion board feet sold in 2022, for a total FY 2023 value of nearly $155 million. Sales included more than 700 contracts greater than $10,000, and nearly 120,000 small timber contracts and permits. Timber harvest levels continue to lag behind timber volume sold, with 2.07 BBF cut in Fiscal Year 2023. The total uncut volume under contract was over 8.0 BBF at the end of FY 2023. Timing of harvesting timber under contract is determined by the purchaser within the bounds of the contract term and may be delayed due to market or other conditions.

The Forest Service has prioritized our work around Wildfire Crisis Strategy landscapes and high risk firesheds and finding the balance of the right work in the right place to protect communities and improve forest health and resiliency to fire and climate driven disturbance. BIL and IRA funding has enabled the agency and our partners to tackle the critical and often costly acres that previously went untreated due to economic constraint. Investments for mechanical treatments and timber harvest are applied to a wide variety of activities contributing to vegetation treatments including environmental analysis and surveys, road work to address sale feasibility issues, sale preparation costs, and thinning of "young growth stands." These investments will create outcomes and outputs on the ground now and into the future. This work is supported by the best available science:

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- Firesheds: https://www.fs.usda.gov/research/rmrs/projects/firesheds
- Scenario Planning: https://www.fs.usda.gov/research/treesearch/63129
- Wildfire Hazard Potential: https://www.firelab.org/project/wildfire-hazard-potential

**Question 3:** As you know, a robust timber industry is critical to addressing the wildfire crisis. However, we continue to see declining levels of timber harvests across the National Forest System. Based on information we received from the U.S. Forest Service, over 80 units failed to meet their timber targets over the last 5 years. Please tell us how you plan to increase the level of timber volume sold across National Forest System lands?

**Answer:** Timber harvest serves as a crucial instrument in increasing forest restoration initiatives, enhancing watersheds and habitats, and mitigating wildfire risks. The sustainable procurement of wood products is instrumental in supporting local communities, executing the Wildfire Crisis Strategy, and alleviating the intensified impacts of climate change.

In Fiscal Year (FY) 2023, the Forest Service demonstrated its commitment to forest resilience and local economies by selling 3.144 billion board feet (BBF) of timber (5,894 thousand hundred cubic feet (MCCF), marking one of the highest output periods in recent years. The agency has sold an average of 3.08 BBF (5,730 MCCF) annually over the past five years. The agency prioritized accelerating restoration activities by increasing efficiencies in planning, sale preparation, timber sale appraisal, and flexibility of timber and stewardship contracts. The agency also analyzed use of active management budget line items to maximize timber volume sold and acres of hazardous fuels treated. National forests have significantly increased the use of appropriate technologies for timber sale preparation and administration as part of their effort to expand operations. Importantly, our focus on the Wildfire Crisis Strategy fuels reduction tends to create less saw timber as the focus is on removing small diameter fuels.

**Question 4:** During the hearing, you mentioned the "proactive *management* for ecological stewardship" when discussing the agency's Notice of Intent to amend all land management plans to conserve and steward old-growth forest conditions.

a) Does the agency anticipate any reductions in the suitable timber base a result of the proposed plan amendment?

   **Answer:** No, we do not anticipate any reductions in suitable timber base as a result of the proposed plan amendment. The suitable timber base for each national forest is determined at the individual forest plan level and will not be impacted by this national amendment. The draft environment impact statement for the proposed plan amendment analyzed the potential effects of the proposed amendment.

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The proposed old-growth amendment does not change lands suitable for timber production. Identifying acres as suitable for timber production does not automatically translate into harvesting those acres. While the old-growth amendment's modified proposed action (preferred alternative) proposes that vegetation management activities in old-growth forests cannot be undertaken for the purpose of timber production, it allows commercial timber harvest to be undertaken for other purposes, such as improving the resilience to potential disturbances of existing old-growth.

Old-growth forests are dynamic systems. Areas that currently meet the definition of old-growth may not in the future, for example, due to natural disturbance (e.g., wildfire, insect and disease). Should this occur, these areas would no longer be subject to the old-growth amendment and vegetation management for the purpose of timber production would be allowed.

The amendment also does not change Allowable Sale Quantity (ASQ) or Projected Timber Sale Quantity (PTSQ). The projected timber sale quantity includes volume from timber harvest for any purpose from all lands in the plan area based on expected harvests that would be consistent with the plan components.

b) What are the anticipated impacts of this plan amendment on the private sector partners – especially, the timber industry?

**Answer:** The draft environment impact statement for the proposed plan amendment analyzes the potential effects of the proposed amendment, including economic effects to timber and other industries The draft environmental impact statement is currently in a 90-day public comment period, which ends September 20, 2024.

c) The administration's FY 2025 budget anticipates flat funding for salaries and expenses, and only a 5.5 percent increase in planning, assessment, and monitoring. If finalized, the proposed old growth amendment will require a significant amount of staff time and bandwidth to implement. These are the very same NEPA staff that are also conducting the wildfire mitigation project planning to meet the goals outlined in the Wildfire Crisis Strategy. Will the agency prioritize implementing the old growth plan amendment over wildfire mitigation projects?

**Answer:** The National Old Growth Amendment effort is primarily staffed by members of the new Planning Service Organization. It is not shifting agency personnel away from Wildfire Crisis Strategy work. The proposed amendment would implement strategies that foster resiliency and expansion of old-growth forest conditions across national forests/grasslands and complements the agency's Wildfire Crisis Strategy. According to our recently completed Threat Analysis, the biggest threat to old growth over the past two decades has been wildfires, with impacts to roughly 712,000 acres.

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**Question 5:** In the Infrastructure Investment and Jobs Act, Congress provided $5.5 billion to reduce wildfire risk. More recently, the Department announced $500 million from the Inflation Reduction Act to go to expanding the Forest Service's Wildfire Crisis Strategy.

a) What is the Department doing to ensure these funds are spent properly and strategically? What is the Department doing to ensure Wyoming and other states, which are vulnerable to catastrophic wildfires, are receiving sufficient amounts?

**Answer:** In Fiscal Year 24, the USDA announced an allocation of $400 million towards the Wildfire Crisis Strategy Priority Landscapes through a mix of BIL and IRA funds and an additional $100 million in funding was announced at the same for the Collaborative Wildfire Risk Reduction Program (CWRRP). The CWRRP funds have potential to support Wyoming's and other states' wildfire management needs.

To strategically direct funds towards areas of highest risk that have not already been targeted through Wildfire Crisis Strategy implementation, the CWRRP funds will be available for projects that are designed to significantly improve fire risk on National Forest System lands outside of the 21 Wildfire Crisis Strategy landscapes that are: (1) within the Wildland Urban Interface as defined by the Healthy Forests Restoration Act of 2003, and (2) within very high wildfire hazard potential areas and/or within high risk firesheds.

There are 24 states that meet the criteria for this program, including Wyoming. The internal competitive process allows national forests to demonstrate their ability to move forward quickly on wildfire risk reduction efforts. To improve its decisions, the agency has a government review panel with members from the Forest Service, Tribes, and States to ensure diverse viewpoints in evaluating and recommending proposals for funding.

b) What more can the Department and the Forest Service be doing to increase transparency on this massive investment?

**Answer:** The agency strives to be transparent and provide tools, using the best available science which reflect the great work the agency is doing to reduce wildfire risk to communities. One example of this is the Fuel Treatment Effectiveness database. The agency requires any wildfire which interacts with a hazardous fuels treatment to be entered into the database to determine if the hazardous fuels treatment was effective at reducing fire behavior and/or adding in suppression efforts. In addition, the agency is also developing an outcome based key performance indicator for our wildfire risk reduction efforts. This effort will help show in what locations the agency is really treating at a pace and scale to make a difference.

An example of a collaborative approach is the National Fuels Treatment Explorer which is currently under development. This is in partnership with the USDA Forest Service,

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Department of Interior and the National Association of State Foresters. This will be the first time we will be able to show spatially our hazardous fuels treatments across all ownerships, at an interagency national scale.

The agency also embraces a learning culture and is constantly looking for ways to improve. This is vital in working closely with our vast array of collaborative partners. The agency has been working closely with the USDA Office of Inspector General (OIG) on several required audits associated with the IIJA. Two of these audits are specifically related to our wildfire risk reduction efforts. This process has been very helpful in highlighting the actions the agency has taken to improve transparency and calling attention to elements we can improve. In addition, the Government Accountability Office (GAO) was also requested for an engagement with the agency on prescribed fire. The OIG and GAO engagements are nearly complete. We look forward to continuing to work closely with OIG and GAO on the recommendations.

**Question 6:** The Commission's recommendation #147 states that the success of investments in forest management should instead "be measured by outcomes such as the number of protected assets, values, and resources, and the degree to which forests and rangelands are returned and maintained in a more resilient state."

a) Are the Department's current metrics adequate for assessing the effectiveness of forest treatments to reduce risk?

**Answer:** Yes, current metrics are adequate, but as a learning organization, we believe we can keep improving. In fact, an agency workgroup is developing a prototype for new outcome-based performance measures that we intend to introduce and test in FY25.

b) Do you believe new performance metrics, such as those proposed by the Commission's report, are better suited to ensuring proper oversight, accountability, and measurement?

**Answer:** The agency fully embraces moving to a more outcome-based performance metric and has been moving in this direction for several years. However, outcome-based performance metrics can be difficult to consistently quantify. To provide proper oversight, accountability and measurement, it is likely a combination of our current metrics and newly derived outcome-based performance metrics will continue to be needed.

c) Are agencies already tracking the proposed performance metrics? And if not, what is needed to start doing so?

**Answer:** Most of the required components to an outcome-based performance metric and identification of high-risk areas are already developed. The agency is currently prototyping how the best available science will help inform this new metric and the scale at which it can be applied.

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**Question 7:** The Commission identified supporting and expanding the workforce as an overarching theme. Housing affordability and availability are important aspects of recruiting and retaining wildland firefighters. The Commission report recommends diversified housing options, housing subsidies, and expanded partnership agreements for the construction and rehabilitation of government furnished housing. It also recommends exemptions from rent-setting guidance in OMB Circular A-45 R to address the needs of the Department and other federal land management agencies. In your view, which specific authorities stand as opportunities to expanding or improving housing supply on or near our national forests? Which specific authorities stand as barriers to expanding or improving housing supply on or near our national forests?

**Answer:** Authorities that can help expand the supply of Forest Service housing include Section 8623 of the Agriculture Improvement Act of 2018, and the Forest Service Facility Realignment and Enhancement Act, Title V. These authorities, both of which are temporary, authorize the Forest Service to issue leases for administrative sites that can include government housing. Making these authorities permanent would allow them to be used long term to support agency housing needs for the agency employees that we rely on to promote forest health, reduce wildfire risk to communities and our natural resources, and ensure safe recreational experiences in our national forests and grasslands. However, these authorities alone cannot address the affordability and availability of housing for Forest Service employees because they enable the agency to pursue the leasing of select administrative sites, in exchange for cash and in-kind consideration for housing development. However, the existing administrative sites may or may not be adequate or appropriately located for that purpose. In addition, refurbishment and construction of government quarters may not be the primary economic drivers for proponents of leases under these authorities, but the agency is prioritizing a combination project types - projects focused exclusively on the development of housing for the Forest Service workforce and projects similar to the one with Summit County, CO, on the White River National Forest that repurposed a Forest Service work center as public housing with a certain number of units reserved for rental by Forest Service employees - to meet a priority need for our employees and there are several projects at various stages of development, to this end.

Approximately 30 percent of Forest Service housing units need to be replaced. The FS housing portfolio has a deferred maintenance backlog that exceeds $360 million; 20 percent need repair of exterior finishes or roofing; and 20 percent need repair of interior finishes. Funding is a major barrier to adequately maintain and expand the existing government housing supply in or near national forests because there is no dedicated discretionary funding source to provide capital improvements and maintenance for agency housing. Under 5 U.S.C. 5911, the Forest Service may retain rent collected for agency housing and spend it on operation and maintenance of the housing. However, the amount collected in rent in an annual basis ($12.4 million in FY23) is not sufficient to meet the agency's annual maintenance needs for existing housing facilities. Additionally, the rent collected may not be used for construction or reconstruction, such as conversion of single-family homes to bunkhouses or dormitories.

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Likewise, the Great American Outdoors Act, which appropriates funds only for fiscal years 2021 through 2025, addresses only deferred maintenance, not construction, of Forest Service infrastructure, such as housing. As a result of budget accounting and modernization directed by Congress, Forest Service appropriations were revamped to fund several cost centers to include (FSLM), which addresses leases and maintenance (but not construction or reconstruction) on Fire Administration & Other (FA&O) facilities. The availability of funds to support agency housing is further constrained as leasing costs continue to rise.

Many national forests are in desirable areas with high market values that over the past five years have seen high rental rate increases. The amount of rent charged for government civilian quarters is determined according to government policy described in Circular A-45. The bipartisan Wildfire Commission has recommended review and potential updates to these policies. We and the Office of Management and Budget are reviewing these recommendations.

An increase of $25,000,000 to perform critical facility maintenance work to improve condition and availability of government housing for Forest Service wildland firefighters and other essential employees will allow for maintenance on approximately 100 housing units, benefit over 400 employees, and address $13,000,000 in deferred maintenance. This funding supports the program's objectives to address facility maintenance backlogs, invest in additional maintenance for firefighter housing, and fund Forest Service facility leases. Furthermore, it sustains national forests and grasslands and delivers benefits to the public which are aligned with two of USDA's priorities; combatting climate change to support America's working lands, natural resources, and communities and attracting, inspiring, and retaining an engaged and motivated workforce proud to represent USDA. The September 2023 final report from the Wildland Fire Mitigation and Management Commission identified the lack of affordable and available housing as a significant barrier to recruitment, hiring, and retention of firefighters.

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**Questions from Senator Mazie K. Hirono**

**Question 1:** What specific congressional actions are needed to establish a Community Wildfire Risk Reduction Program and implement the Commission's recommendations for that program that cannot be done by federal agencies themselves?

**Answer:** The federal agencies have a long history of working together in our wildfire risk reduction efforts. However, the proposed Community Wildfire Risk Reduction Program is targeted to deal with the potential gap for the built environment. Working under the umbrella of a new community-centered program focused directly on ignition resistance in the built environment, federal agencies could better leverage technical and financial assistance to help support local communities. In addition, working together under this program may allow federal agencies to uniformly support low-capacity communities, develop and implement standards used by each federal agency, support non-agency partners and align research more uniformly. .

**Question 2:** One challenge in implementing the Commission's recommendations is to scale them down from the federal to local level. To what extent are the various recommendations and opportunities presented in the Commission's reports limited by a lack of federal agency presence in some states (e.g., the lack of U.S. Forest Service lands in Hawaii)? Did the Commission consider the role of existing regional or local entities such as Land Grant or the Joint Fire Science Programs' regional Fire Science Exchanges in applying the Commission's recommendations?

**Answer:** The Commission considered all the roles that agencies play and only a small number of the recommendations were limited due to a lack of federal land jurisdiction. Even though there are no National Forest System lands in Hawaii, the agency provides support through our State, Private and Tribal Forestry, including Fire and Aviation Management and post-fire programs. For example, the Forest Service sent Burned Area Emergency Response personnel to Hawaii after the Maui wildfires in 2023. Another example is the multiple Joint Chiefs' Landscape Restoration Partnership projects which have been implemented in Hawaii.

**Question 3:** Are there pathways to move federally available dollars from short-term investments, such as individual projects or grants, to fund longer term or permanent positions or programs at the state or local level? Does the Commission have recommendations for how state and local governments can assess the current workforce capacity and needs for landscape restoration and wildland fire response? Does the Commission have recommendations for how state and local governments can assess whether they are limited by federal requirements, or conversely, underutilizing federal opportunities?

**Answer:** The Commission emphasizes the importance of capacity, both in state and local government and the workforce at large, to do critical work of mitigating, responding to, and recovering from wildfire. The Commission does not have specific recommendations for how state and local governments should assess workforce capacity for landscape restoration and

wildland fire response. However, there are many recommendations that relate broadly to state, Tribal, and locally led activities (see, for example, Recommendations 3, 36).

**Question 4:** Most of the Commission's recommendations on landscape restoration focus on post-wildfire response rather than mitigation against future wildfire disasters. Are there opportunities for federal agencies to reframe landscape restoration, including native plant restoration, as wildfire mitigation strategies? Does framing restoration only in terms of post-wildfire response limit states and federal agencies to only raise funds after fire has already damaged ecosystems?

**Answer:** The Commission recommendations for landscape restoration cross all phases of wildfire, with mitigation in the natural environment discussed in the first chapter (Creating the Foundation for Success, see page 53) and post-fire response and recovery discussed in the fourth chapter (Recovering for Resilience, see page 144). The final report of the Commission notes that certain invasive plants contribute to uncharacteristic wildfire risk, particularly in non-forested ecosystems. There are several existing Federal programs for landscape restoration in ecosystems at risk from severe wildfire, and native plant restoration is often an eligible activity. At USDA, we have multiple programs across the Forest Service and the Natural Resources Conservation Service that can be used for native planting in ecosystems at high risk of fire. The Commission made many recommendations for changes to how these programs are authorized and funded.

**Question 5**: Two of the final report's recommendations involve the use of targeted grazing to reduce wildfire risk from grasses and shrubs. One of these recommendations includes expanding the use of the U.S. Forest Service and Bureau of Land Management authorities to implement livestock grazing. However, none of Hawaii's land is owned by either agency. What authorities or processes, either new or existing, might you envision being implemented by federal agencies to support livestock grazing for fuels management of state and private land in Hawaii? What recommendations do you have for actions that states, counties, and landowners should take in addition to federal agencies?

**Answer:** The Forest Service has partnered on grazing to reduce wildfire risk from grasses and shrubs using the Good Neighbor Authority that allows for work on, and adjacent to, National Forest System lands. With no National Forest System lands in Hawaii, we haven't implemented any livestock grazing for fuels management on state or private lands in Hawaii. States, counties, and landowners could consider working with the Natural Resources Conservation Service (NRCS), university extension resources, and industry groups such as woolgrowers and cattlemen associations to get connected to practitioners and other resources for designing and implementing targeted grazing projects.

**Question 6**: The final report suggests using virtual fencing to improve targeted grazing. It acknowledges the high upfront cost of virtual fencing but suggests it could yield long term savings compared with building and maintaining physical fences. Are existing federal programs able to provide enough financial support to overcome the high upfront cost of virtual fencing, particularly for large flocks or herds? Or are additional program flexibilities and funding needed?

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**Answer:** The Forest Service recognizes the report's suggestion to use virtual fencing, however, currently, the agency prioritizes projects depending on the needs of the fuels reduction project and how effective the fence is in the project area. Factors influencing the need and type of fence include terrain, acres, and vegetation type. The Forest Service does not have enough funding to cover virtual or physical fencing needs for fuels management. The NRCS does provide opportunities related to virtual fencing through the Environmental Quality Incentives Program.

**Question 7**: In August 2023, farmers on Hawaii Island were able to fight active fires, keeping them from potentially entering other communities. What role can farmers play in mitigating and responding to wildfires and what incentives does the department provide for these activities? Should the USDA do more?

**Answer:** Rangeland Fire Protection Associations (RFPAs) are efforts coordinated with the Department of the Interior (DOI) and state land management agencies to leverage extensive local knowledge to provide swift detection and initial attack response to rangeland wildfires. In addition to coordinating training with DOI for the RFPAs, the Forest Service provides funding to RFPAs through the Rural Fire Capacity Grant in cooperation with state entities under the authority of the Cooperative Forestry Assistance Act of 1978 to provide firefighting equipment.

**Question 8**: The tragedy that unfolded in Lahaina showed that we need to better predict wildfires and monitor high risk areas. It also showed that we need better data available for first responders to make smarter and more informed decisions, especially in states like Hawaii with highly variable terrain that can be difficult to navigate. What gaps exist in wildfire data coverage for Hawaii, and what can the federal government do to use the most up to date technology, such as next generation, near real-time satellite monitoring, to best protect at-risk communities? Moreover, what steps can federal agencies, including the U.S. Forest Service and its partners, take to incorporate near real-time fuel moisture and other fire-related environmental data into its risk models to improve Hawaii's ability to predict and respond to fires?

**Answer:** The National Fire Danger Rating System along with the development and implementation of interagency Fire Danger Operating plans is a national standard set forth by the National Wildfire Coordinating Group. The National Fire Danger Rating System monitors day-to-day and forecasted fire danger conditions to determine the likelihood of a fire starting and the difficulty of containment. This system, coupled with the development and implementation of interagency Fire Danger Operating plans help inform fire managers of fire response, staffing, fire restrictions, fire danger and preparedness decisions. The Wildfire Risk to Communities website helps inform communities of their risk level and what actions can be taken to reduce that risk. These types of tools are available in Hawaii and the agency is willing to collaborate more closely in the use of these tools.

At the time of the Lahaina fire there were no identified FireGuard (satellite fire detection) areas of interest for Hawaii which resulted in no local contacts receiving alerts. Since the fires, over 20 new areas of interest have been identified and positive contact has been made with multiple

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federal, state, and local officials to receive alerts. In addition, the Department of Homeland Security's Science and Technology Director recently deployed sensors capable of detecting wildfire smoke and are working with local officials to use this information in alert systems.

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**Questions from Senator James E. Risch**

**Question 1:** The Biden administration's latest old growth proposal could block many of the Commission's recommendations for fuels thinning and proactive management in the name of conservation, despite the fact that fire is the number one threat to old growth forests. It would also reject the Commission's recommendations for local collaboration by identically amending 128 land use plans simultaneously.

a) Given these contradictions, can you elaborate on how the agency expects the old growth rule to further forest management recommendations in the Commission's report?

**Answer:** The Agency has proposed a National Old Growth Amendment to its land management plans; it is not a rule or rulemaking. The proposed amendment would implement strategies that foster resiliency and expansion of old-growth forest conditions across national forests/grasslands and complements the agency's wildfire crisis strategy. According to our recently completed Threat Analysis, the biggest threat to old growth over the past two decades has been wildfires (-712,000 acres). The proposed amendment as outlined in the draft environmental impact statement published on June 20, 2024, for a 90-day public comment period, would (1) allow hazardous fuel reduction activities in old growth forest conditions within the wildland urban interface to protect communities and infrastructure from wildfire, and (2) allow proactive stewardship in old growth forest conditions to make them more resilient and adaptable to stressors like wildfire. The proposed amendment also calls for individual National Forests and Grasslands to locally, and collaboratively, develop adaptive strategies for old-growth forest conservation.

b) How does the Forest Service expect a single amendment to successfully affect the management of all 128 unique units of the National Forest System?

**Answer:** The Department believes that reaffirming, at a national scale, the commitment to maintaining and developing old-growth forests conditions across the National Forest System is prudent and warranted, and best advanced at this time via amendment of land management plans. The purpose of the proposed amendment is to establish consistent plan direction across the 128 land management plans to foster ecologically appropriate management based on local conditions and forest type across the National Forest System. The intent is to maintain and develop old-growth forest conditions while improving and expanding their abundance and distribution and protecting them from the increasing threats posed by climate change, wildfire, insects and disease, and other potential stressors, within the context of the National Forest System's multiple-use mandate.

**Question 2:** In Idaho, many forest management projects are often delayed, if not completely prevented, due to severe staffing shortages in Forest Service offices. The Commission's report reflects upon this reality and mentions the extreme need for staffing in federal land management agencies. What is your agency doing to address office staffing shortages, and what strategies are being applied to retain current employees?

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**Answer:** Since October 1, 2023 (the beginning of FY22) the Forest Service worked diligently to increase capacity across the Forest Service through dedicated hiring efforts. Specifically in Forests across Idaho, we achieved an increase in the permanent non-fire workforce of over 30%--a 24% increase in those who work year around, and a 100% increase in the permanent workforce who work seasonally). To improve our recruitment success and retain employees, once hired, the agency has offered workplace flexibilities such as remote work, telework, and flexible work schedules. The Forest Service has also maximized use of hiring incentives for new employees and retention incentives for existing employees.

The Forest Service recognizes that in many communities the lack of affordable or appropriate housing often deters prospective employees or poses a retention challenge for existing employees. As one of its retention and recruitment strategies, the Forest Service is diligently striving to increase and improve employee housing. In fiscal year 2023, the Intermountain Region completed projects in the Boise, Payette, Sawtooth, and Caribou-Targhee National Forests that provide housing or shower facilities to support roughly 29 employees. Also in fiscal year 2023, the agency executed a lease with Summit County, Colorado, under section 8623 of the Agriculture Improvement Act of 2018 (the 2018 Farm Bill) to construct, operate, and maintain the Dillon Work Center, a project that will provide roughly 150 housing affordable housing units, including housing units for Forest Service employees, as well as the public. The agency is continuing to use the leasing authority under the 2018 Farm bill to leverage housing for Forest Service employees and is currently in the planning stages to lease administrative sites in Ketchum, Idaho, as well as Steamboat Springs, Colorado. In Ketchum, the agency is considering leasing to a private developer for mixed commercial and residential spaces with roughly 80 units of workforce housing. A portion of the residential space would be made available to federal employees.

Further, since the Forest Service does not have the authority to charge less rent or to provide stipends to our workforce, processing a refund after rent is paid is the only viable option given the limitation in current authorities. Therefore, on June 25, 2024, the Forest Service announced that, under the emergency subsistence authority in section 5 of USDA's Organic Act of 1956, 7 U.S.C. 2228, between 4,500 to 5,500 employees renting agency housing will receive a temporary refund of part of their rent starting from March 10, 2024, and the associated estimated tax burden. The housing refund will cover half the rent for any Forest Service employees at General Schedule (GS) 1, step 1, through GS 10, step 10, and all Wage Grade employees living in agency housing and ten percent of the rent for employees at GS 11, step 1, through GS 13, step 10, living in agency housing. This approach prioritizes assistance to employees at lower GS levels who are more likely to utilize Forest Service housing. USDA's Forest Service anticipates leveraging the emergency authority for no more than a year while we concurrently work on government policy changes that address the emergency conditions.

**Question 3:** Wildfire season is now no longer even close to a season, as wildfires rage year-round. However, agency contracting policies have not kept up with this new timeline. The Commission's Aerial Equipment Strategy Report identified the need to prioritize long-term value

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over short-term expediency in contracting to prepare for elongated fire seasons and recommended new contracting processes to meet operational demands year-round.

a) What is your agency doing to improve the effectiveness and efficiency of the aerial contracting process to meet programmatic needs commensurate with the increased length of fire seasons?

**Answer:** The Forest Service has begun using Multiple Award Task Order Contracts which have ten-year performance periods. This contract vehicle is very flexible and allows both call-when-needed and exclusive use contracts within the same contract vehicle. The aerial firefighting industry has said they do not want contracts so long that they cannot estimate pricing in out years. The Multiple Award Task Order Contracts can be split into shorter periods of performance less than ten years, but still within the ten-year contract life, allowing contractors to better estimate future costs. Multiple Award Task Order Contracts also allow new vendors, not in the original award to propose aircraft at specified periods of the contract life and allows existing vendors to propose new or different aircraft throughout the contract period. All multi-engine airtankers, all three types of helicopters, aerial supervision aircraft, other light fixed-wing and multi-engine water scoopers are, or will be, on a Forest Service Multiple Award Task Order Contracts in 2024 or 2025.

b) Has your agency performed an analysis of previous fire seasons to determine the total cost of damages and other emergency response directly resulting from a lack of completed contracting?

**Answer:** We have not conducted such analysis; in turn we have always been able to meet Fire and Aviation Management's needs using existing contract vehicles or bridging a contract. For example, when the exclusive use helicopters contracts were protested, we shifted to the call-when-needed helicopter contract vehicles.

**Question 4:** Fire retardant is a crucial component of our wildland firefighting arsenal, and the companies who provide retardants need contractual certainty in order to adequately prepare their inventories and hire staff. Has the U.S. Forest Service finalized fire retardant contracts for the upcoming wildfire season?

**Answer:** On March 22, 2024, the Forest Service awarded a contract to provide retardant for the 2024 season. That award was protested through the agency, which stayed the performance of the March 22, 2024, award. The protest was denied, and the retardant contract award started on April 10, 2024. All Airtanker Bases opened as scheduled with retardant supplies.

a. If not, please provide an update on the status and why this has not been finalized.

**Answer: N/A**

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b. If so, please provide an update on these contracts, and any implementation plans in place.

**Answer:** Refer to the answer above for #4.

**Question 5:** Wildfires have an outsized impact on public recreation areas. These recreation areas offer myriad benefits to states like Idaho, including valuable resources to assist fire mitigation and response efforts.

a. How will the agency ensure opportunities for recreation remain available as we plan for and mitigate against wildfires?

**Answer:** Visitor safety is paramount when responding to natural disasters such as wildfires. The agency will temporarily close developed recreation sites operated and maintained by the Forest Service when fire danger is high and reopen them when the threat has passed. If infrastructure is damaged by a wildfire, the agency will strive to restore access as soon as possible given available resources. Developed recreation sites and National Forest System trails are considered both assets at risk and potential assets to suppression efforts during wildfire planning and operational processes. During fuel mitigation, developed recreation sites typically receive special prescriptions that increase resiliency to wildfire while balancing visitors' desire for privacy and shade and the aesthetics of the recreation setting. National Forest System trails needed for access and holding locations are also prioritized for maintenance and additional preparation. More information regarding the Forest Service's Climate Adaptation Plan is available online at: https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf

b. What opportunities do you see for recreation infrastructure to augment resiliency goals by, for example, using trails to move people and supplies during wildfire events, using campsites, trails or other recreation areas as firebreaks, etc.?

**Answer:** National Forest System trails are assessed for access needs and use as control locations or holding areas during potential operational delineations (POD) planning. During POD planning, the Forest Service treats National Forest System trails both as values at risk and potential suppression and mitigation assets. Using spatial analytics and local information, fire managers look for well-maintained National Forest System trails that may provide any advantage during planned and unplanned fires, such as burn unit delineations for prescribed fire, rapid access and easily prepped holding features during the initial attack phase of a wildfire, and vital supply lines for large remote wildfires.

c. How does interagency cooperation facilitate this kind of work, and is there room for improvement? Please explain.

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**Answer:** POD planning is an interagency, collaborative process that incorporates assessment of fire risks and control opportunities across agency boundaries. PODs are pre-determined potential control features, developed collaboratively, with stakeholders and cooperators literally in the room, using cutting-edge science to inform operational strategies for containment during a wildfire or prescribed fire. Typical PODs are existing features on the landscape like roads, rivers, lakes, mountain ridges, barren areas, and other changes in fuel continuity or type that readily allow us to stop fire spread. Please visit our storyboard for examples:
**(https://storymaps.arcgis.com/collections/f513b2593f5342a59207334207d853a8)**

d. Recreationists often volunteer to assist in recovery efforts after wildfires. Did the report identify any opportunity to utilize volunteers to help ensure recreational trails, sites, and areas can be used as opportunities to mitigate, suppress, or aid in wildfire response?

**Answer:** Though the report did not speak specifically to these details, volunteers assist the agency in a variety of ways to support both recreation and wildfire response. The number of Forest Service volunteers who have specifically engaged in Wildfire Crisis Strategy activities has increased by 197 percent since 2020 (from 279 in fiscal year 2020 to 827 in fiscal year 2023). In fiscal year 2023, volunteers across the United States contributed around 130,000 hours (valued at approximately $4.1 million) to maintain and restore recreational infrastructure, and prevent wildfires. Volunteers also supported Forest Service wildfire management, wildfire prevention activities and educational outreach, wildland fuel reduction, and wildland/urban interface fuel reduction.

Through its longstanding emphasis on partnership and volunteer management, the Forest Service's national recreation program bridges communication gaps, leverages contributions from partners, and promotes local interest in and support of fuel reduction and post-fire recovery efforts. For example, the Forest Service's national trails program uses local agency expertise to support partners and volunteers in maintaining almost 30,000 miles of National Forest System trails.

However, with a two percent annual increase in visitation and 159 million visits to National Forest System lands last year alone, continued financial support for the Forest Service's recreation and volunteer programs is vital. With an estimated 1,600 vacant agency recreation positions, many ranger districts are struggling to provide adequate support to willing partners and volunteers. Additional resiliency and recovery work on National Forest System trails and at campgrounds operated and maintained by the Forest Service, and other types of developed recreation sites could be accomplished with partners and volunteers if the agency had more professional recreation staff in ranger districts to provide training and coordination for these efforts.

**Question 6:** The Commission's report made nearly 200 references to prescribed fire as a solution for the overabundance of hazardous fuels in forests. While prescribed fire is an important tool to

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manage fire-prone areas, we cannot afford to use it as the singular solution. The Commission's report also recommended increased partnerships with the wood products industry to derive value from fuels removed from public lands.

a. How did the Commission work with the timber industry to formulate fuels reduction recommendations?

**Answer:** Alongside prescribed fire, the Wildland Fire Mitigation and Management Commission final report emphasizes the importance of thinning and other mechanical treatments for managing wildfire risk and creating resilient ecological conditions. To inform deliberations, the Commission carefully considered input from a wide range of subject matter experts, including a panel of experts on wood products and biomass investment. These helped inform numerous recommendations, both specific to mechanical treatments (Recommendations 17, 19, 20, 21) as well as more general recommendations that aim to build capacity for fuels treatments generally, such as recommendations to increase the flexibility of federal funds to move across boundaries (See, for example, Recommendations 18, 24, 26, 27).

b. Since the submission of the report, how does the Forest Service plan to partner with the timber and wood products industries to facilitate hazardous fuels removal?

**Answer:** Our State, Private and Tribal Forestry, Wood Innovations program is delivering market development and expanded manufacturing capacity for many sectors of the wood products economy, including lumber, mass timber, renewable wood energy, biofuels, biochar, and other innovative wood products. This work, with private and public partners, supports the critical connection between markets for forest products and resilient forests for all landowners – federal, state, tribal, and private.

Forest products are a fundamental building block of the U.S. economy and critical in helping the Forest Service meet its mission. A diverse forest products infrastructure is critical in meeting our hazardous fuels objectives.

The Forest Service makes funding available, through competitive grants, for entities in the private and public sectors that are driving innovation and promoting sustainable and efficient use of forest resources. The agency is also investing in facilities that are driving innovation and promote sustainable and efficient use of wood resources.

The grant programs enhance the competitiveness and profitability of local wood products economy and supports the development of value-added wood products and markets. These investments contribute to a sustainable and thriving forest products industry. They support efficiency and innovation, which in turn create economic opportunities and more capacity to manage forests sustainably, including through hazardous fuels reduction.

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**Questions from Senator Catherine Cortez Masto**

**Question 1:** The Commission's recommendations make it clear that deploying early wildfire detection technology is vital to containing wildfires before they get out of control.

Your testimony highlighted a particular provision that I fought to include in the Bipartisan Infrastructure Law pertaining to funds specifically for the deployment of wildfire detection equipment, such as cameras, sensors, and more.

Can you provide an update on the deployment of wildfire detection technology funding made available through the Bipartisan Infrastructure Law?

**Answer:** The Forest Service has identified needs for camera equipment in regions 1 (Northern Rockies), 3 (Southwest), 4 (Great Basin), 6 (Pacific Northwest) and 10 (Alaska). Each region identified projects that include upfront cost as well as funding needed for sustainability. The majority of these projects will be implemented in collaboration with partners. The total identified need is approximately $2.3 million. BIL funding will be used to fund the identified projects.

Two examples of recent camera deployment under this approach. The Humboldt-Toiyabe National Forest and BLM Nevada entered into a new agreement with the University of Nevada Reno. Currently, Nevada has 54 cameras, most on BLM lands, but they cover the Humboldt-Toiyabe National Forest, and the Forest Service Fire and Aviation Management program is currently working with the National Forest to deploy up to six (6) more cameras. And, the Forest Service Pacific Southwest Region (California) is working with Alert California from University of California Davis to identify critical areas on National Forest System lands for new camera locations. In both areas, BIL funds are being made available for the purchase and deployment of cameras in critical areas.

**Question 2:** Postfire assessments of the 2021 Caldor Fire demonstrated that a combination of fuel reduction treatments, fire safe community projects and water infrastructure for fire suppression projects saved communities in the Lake Tahoe Basin from being devasted.

My understanding is that some grant assistance programs to improve firefighting capacity, such as with USDA's Community Wildfire Defense Grant Program, does not include water infrastructure as an eligible activity despite the IIJA providing pretty broad authority for its inclusion.

Legislation that I co-sponsored with then-Senator Kamala Harris served as the basis for the Community Wildfire Defense Grant Program that was created by the IIJA. It specifically identified water infrastructure as an eligible use of funds for the grant program.

The Senate FY24 Interior Appropriations Report noted that the current eligibility requirements for these grants do not allow critical water infrastructure for wildfire suppression, and requested,

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and the Committee requested USDA to provide an update on this program. (p. 110 of the S. Rept. 118-83).

Please share with me your response to the Appropriations Committee, and please speak to what the Department is doing to include water infrastructure for suppression activities in your grant availabilities.

**Answer:** Within the Bipartisan Infrastructure Law (BIL), Subsection (f) of Section 40803 is the general description of the program and contains the basic eligibility requirements for an applicant to qualify for a grant. The Forest Service has interpreted the authorizing legislation as being directed at funding Community Wildfire Protection Plans (CWPPs) and projects that reduce wildfire risk to communities such as hazardous fuels mitigation, fire breaks, and purchase of certain equipment to aid in reducing hazardous fuels.

As with Section 40803 restrictions regarding FEMA grants under the Robert T. Stafford Act, the Forest Service has taken a similar position that CWDG funds are not to be used for public water systems, whose primary purpose is to provide drinking water, as USDA's Rural Development agency provides loans, loan guarantees, and grants for public water systems. Additionally, the Forest Service does not have engineering and environmental support expertise to oversee and manage grants for public water systems as that is not within the Forest Service's mission and scope. With the high installation expense of public water systems, the use of any CWDG funding for that purpose would greatly decrease the amount of actual wildfire risk reduction work for communities.

During the first two rounds of CWDG funding, the Forest Service was not able to fund all requests, which were for CWPPs and wildfire risk reduction projects. For Round 1, we received a total of 417 applications for $525 million in funding. We funded a total of 100 projects at $197 million. For Round 2, we received a total of 535 applications for $975 million in funding. We funded a total of 158 projects at $250 million.

The Forest Service also does not allow CWDG funding to be used for purchasing fire suppression equipment such as engines as the intent of the program is to help communities reduce their risk through completing risk reduction projects such as reducing hazardous fuels and installing fuel breaks. Public water systems' primary purpose is to supply a community with a sanitary supply of drinking water. Any hydrants installed on a public water system are dedicated to fire suppression, and not wildfire mitigation, which is not a purpose of the CWDG program.

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**Questions from Senator Steve Daines**

**Question 1:** Deputy Under Secretary Harrell, in the Commission's Aviation Report two recommendations focus on firefighting aircraft contracts no longer fulfilling baseline operational demands to cover the extended nature of fire season. How many air tankers were on contract the day the Smokehouse Creek Fire broke out in Texas? How long after the fire was detected did retardant or water drops start on the fire? How many acres was it at that time?

**Answer:** The Smokehouse fire started on February 26, 2024, and was located on state and private lands in the Texas panhandle. While not a federal fire, in anticipation for red flag weather conditions, the Forest Service Southern Region prepositioned ground resources to support potential State of Texas needs. Through pre-season air tanker contract options and based on fire activity in Texas and Oklahoma, the Forest Service anticipated a need for airtankers and activated one (1) on March 1, 2024, two (2) on March 2, 2024, and one (1) on March 3, 3024. Forest Service multi-engine airtankers were also on contract when the Smokehouse Creek fire started and on March 2, 2024, the State of Texas placed their first request for multi-engine airtankers.

The first aviation assets to drop retardant or water on the Smokehouse Creek Fire were single engine airtankers (SEATS), T-859, T-833, and T-823, which began dropping fire retardant on February 28, 2024. The State ordered several others on March 2, 2024. Note: the SEATS are contracted through the DOI BLM and must be ordered by states. From the best available information during the early stages of the fire, on February 27, 2024, Texas A&M Forest Service reported the fire to be approximately 250,000 acres and zero percent contained.

**Question 2**: Deputy Under Secretary Harrell, the Smokehouse Creek Fire, which is the largest in Texas history, was early in the year. How did this impact response time to deploy needed resources? Are there lessons learned for future years?

**Answer:** The Smokehouse fire started on February 26, 2024, and was located on state and private lands in the Texas panhandle. While not a federal fire, in anticipation for red flag weather conditions, the Forest Service Southern Region prepositioned ground resources to support potential State of Texas needs. Based on the rate of fire spread, state and local resources were the primary responders to the Smokehouse Creek Fire. Requests for additional resources that were unable to be filled at the local level were elevated to and filled by either the Southern Area Geographic Coordination Center or the National Interagency Coordination Center. The primary lesson learned is that interagency coordination from local to state to federal resources can be very effective in moving the needed resources when local resources are at capacity. Mobility of these resources is integral throughout the year. The interagency community is seeing the need for increased mobility given that fire conditions have changed across the nation, dictating resource availability and capacity all year long.

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**Question 3:** Deputy Under Secretary Harrell, a finding in the Aviation Report indicated that aircraft contracts favor short term expediency over long term value. What is the agency doing to prioritize "best value" in their contracting?

**Answer:** Tradeoff Processes and Lowest Price Technically Acceptable source selections are part of the Best Value Continuum. In different types of acquisitions, the relative importance of cost or price may vary. For example, in acquisitions (such as all Forest Service aircraft services contracts) where the requirements are clearly definable and there is minimal risk of unsuccessful contract performance, cost or price may play a dominant role in source selection for best value. The less definitive the requirement, the more development work required, or the greater the performance risk, the more technical or past performance considerations may play a dominant role in source selection to determine best value.

**Question 4**: Deputy Under Secretary Harrell, if Congress does not fix the Ninth Circuit Cottonwood decision and the Forest Service will be forced to reinitiate consultation on Forest Plans that have zero on the ground impact on species, does the Department believe this will impact active forest management work to mitigate wildfire risk?

**Answer:** Congress provided a partial fix for the 9th Circuit's Cottonwood decision in the Consolidated Appropriations Act of 2018 (P.L. 115-141). The Act responded to the Ninth Circuit's ruling concerning reinitiation triggers for land management plans. The statute provided the Forest Service an absolute five-year safe harbor (through March 2023) from any requirement to reinitiate consultation on a land management plan with respect to the subsequent listing of a species or designation of critical habitat. After that five-year period, the statute provides a partial exception depending on factual circumstances (timing of the Service agencies rulemaking and the age of the applicable land management plan). The Forest Service believes that protection of threatened and endangered species and critical habitats is vital and best accomplished by focusing reinitiation of consultation where it is most needed and most valuable, at the project-level where species requirements can be integrated with project design and implementation, assuring species conservation and program accomplishment, including reducing wildfire risk.

**Question 5**: Deputy Under Secretary Harrell, how many Forest Service projects are currently halted or delayed due to Cottonwood related litigation? How many of those projects are in Montana?

**Answer:** The passage of the Consolidated Appropriations Act of 2018 (P.L. 115-141) lifted the requirement to consult in situations like those at issue in Cottonwood for five years; and partially lifted the requirement for an additional period of time. One lawsuit asserting that re-initiation of consultation is required under Cottonwood has been filed in the Pacific Northwest Region recently. We are not aware of any lawsuits or notice-of-intents to sue currently invoking the Cottonwood ruling's holding.

**Question 6**: Deputy Under Secretary Harrell, what is the cost to the Forest Service for Cottonwood related litigation since 2015? The Forest Service estimated that re-consultation on

the 87 forest plans that are potentially subject to Cottonwood related litigation will cost approximately $264,367 each. How does the Department anticipate that this new cost will impact the full implementation of the 10-year Wildfire Crisis Strategy?

**Answer:** There was considerable effort focused on this issue between 2015 and 2018. The agency has previously reported that it spent approximately $250,000 on court-ordered reinitiation of consultation for the Canda Lynx and Bull Trout in 2018. These two programmatic species-based consultations spanned multiple national forests and covered approximately 20 LMPs. Between 2018 and 2021, the Forest Service also spent $100,000 a year to collect information on the species and prioritize the species and/or forests for future consultations. Since 2022, the Forest Service has spent approximately $1.5 million a year to pull together the needed information and start crafting Biological Assessments for priority species and forests. Implementing BIL and the Wildfire Crisis Strategy (WCS) required increasing the pace and scale of wildfire risk reduction projects and increased staff capacity for the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) to support the associated ESA consultation workload. To address that need, we have used the Division J BIL authority to transfer considerable funds to the U.S. Fish and Wildlife Service and National Marine Fisheries Service to enhance their staffing capacity for addressing the ESA consultation workload associated with the Agency's priority WCS projects.

**Question 7**: Deputy Under Secretary Harrell, of the 4.4 million acres treated in Fiscal Year 2023, how many acres were treated with 1) prescribed fire, 2) pre-commercial thinning, and 3) commercial timber harvest?

**Answer:** In FY2023, the Forest Service accomplished over 1.95 million acres of prescribed fire treatments on Forest Service National Forest Systems lands and neighboring lands through authorities. Commercial timber harvests (not all commercial timber harvests count as hazardous fuels treatments) for fuels reduction accounted for nearly 430,000 acres, while pre-commercial thinning accounted for almost 260,000 acres. Over 450,000 acres of fuels reduction work was accomplished by state forestry partners and is not broken out by pre-commercial thinning or commercial timber harvest.

**Question 8**: Deputy Under Secretary Harrell, one of the Wildland Fire Mitigation and Management Commission's recommendations was to expand grazing to mitigate fire risk. What is the Department doing to facilitate grazing on National Forest System Lands? What is the main challenge to grazing on public lands?

**Answer:** The Forest Service continues to authorize livestock grazing and other activities (e.g., rangeland improvements) on National Forest System lands within the authorities provided in law and regulation. This includes grazing under term grazing permits as well as other instruments such as livestock use permits to facilitate targeted grazing for fine fuels reduction. The Agency has provided funding for specific targeted grazing projects across several regions. Responding to volatility in forage production from one year to the next coupled with rising costs relative to

construction and/or post wildfire repair of rangeland improvement infrastructure, continue to present the greatest challenges.

**Question 9**: Deputy Under Secretary Harrell, you mentioned in your testimony that the Forest Service has entered into an agreement with the Fish and Wildlife Service to facilitate Endangered Species Act consultation. Has this shortened the length of time that consultation takes? If so, what has that difference been?

**Answer:** The Forest Service, National Marine Fisheries Service, and U.S. Fish and Wildlife Service finalized a framework to inform and facilitate the transfer of funds to support interagency cooperation under the Endangered Species Act (ESA) for activities performed pursuant to the Infrastructure Investment and Jobs Act. This framework was finalized in January 2023. Anecdotal feedback indicates that enhanced personnel capacity provided via this funding is making a positive impact on consultation timelines and project implementation in support of the Wildlife Crisis Strategy. It should be noted that additional benefits are expected in the near-term following further training and experience gained among the newly hired U.S. Fish and Wildlife Service and National Marine Fisheries personnel aiding in the Wildfire Crisis Strategy-related ESA consultation workload.

**Question 10**: Deputy Under Secretary Harrell, how many Land Management Plans currently have direction for old-growth forest management?

**Answer:** The Forest Service conducted a thorough review of existing old-growth direction in 129 land management plans. Of these, all but 8 had some form of old-growth direction. Some plans specifically name old-growth (or old forest or other similar terminology), while others contain direction that is less explicit stated but serves as a proxy for old-growth (for example, where the direction refers to habitat needs for species that are considered old-growth obligate species without using the term old-growth). One of the purposes of the National Old Growth Amendment is to create a consistent framework to manage for the long-term persistence, distribution, and recruitment of old-growth forests across the National Forest System (NFS) considering the interacting biophysical and social factors that threaten the persistence of older forests on NFS lands.

**Question 11**: Deputy Under Secretary Harrell, one of the recommendations from the Wildland Fire Mitigation and Management Commission's report is to establish a prescribed fire target based on natural fire regimes as determined locally. Has the Department taken steps to implement this recommendation?

**Answer:** The agency is currently developing quantitative numbers for the Regions on the number of acres needing prescribed fire to maintain acres in a desired, low risk condition. In addition, we will also be quantifying how many acres need to be treated annually in each Region. It would be difficult to establish a specific prescribed fire target given the variability of environmental factors from day to day or year to year. However, the agency does continue to

emphasize the need to increase prescribed fire to establish or maintain fire adaptive ecosystems in a low-risk condition.

**Question 12**: Deputy Under Secretary Harrell, did the Department have discussions with the Environmental Protection Agency on the impact the National Ambient Air Quality Standards changes would have on the use of prescribed fire prior to that rule being finalized? Does the Forest Service anticipate any constraint on the use of prescribed fire due to the change?

**Answer:** The Department was engaged with EPA in several venues prior to the rule being finalized revising the National Ambient Air Quality Standards for Particulate Matter. These venues include discussions at the Wildland Fire Leadership Council, the Wildland Fire Mitigation and Management Commission and leadership discussions between USDA, DOI, EPA and CDC. On November 9, 2023, EPA Administrator Michael S. Regan, DOI Secretary Deb Haaland, USDA Secretary Tom Vilsack and the Director of CDC Mandy Cohen announced a Memorandum of Understanding (MOU) to further their joint work to protect communities from the impacts of wildfire smoke, while promoting land management practices that reduce the risk of large, severe wildfires which includes strategic use of prescribed fire ( Biden-Harris Administration Agencies Sign Interagency Agreement to Address Wildfire Risk and Protect Communities from Smoke | The White House ). The four agencies also released a joint workplan outlining wildland fire-related priorities the agencies will focus on over the next two years. This workplan, which had activity starting in 2023, specifically builds on concerns about the implementation of the new standard for all landowners that use prescribed fire on wildlands. In order to minimize the effect on the use of prescribed fire as a result of the 25 percent reduction of the annual fine particulate standard, it is critical that wildfire and prescribed fire smoke impacts be removed through application of the Exceptional Events Rule (EER), especially impacts that affect Clean Air Act compliance that could lead to an area being designated as nonattainment. While the EPA evaluates and approves EER demonstrations, it is in the jurisdiction of state and local air agencies to decide to use the EER for wildland fire smoke. The Commission Report has several recommendations that build capacity for an efficient EER process alongside actions that support public health during smoke events (See recommendations 39-44). Additionally, if fire-adapted wildlands are included in nonattainment area designations, it is possible that prescribed fire could have some constraints imposed.

**Question 13**: Deputy Under Secretary Harrell, how has the Department engaged with the memorandum of understanding that the Department signed with the Environmental Protection Agency, the Centers for Disease Control and Prevention, and the Department of the Interior to enable the expansion of prescribed fire?

**Answer:** On November 9, 2023, EPA Administrator Michael S. Regan, DOI Secretary Deb Haaland, USDA Secretary Tom Vilsack and Centers for Disease Control and Prevention Director Mandy Cohen announced a Memorandum of Understanding (MOU) to further their joint work to protect communities from the impacts of wildfire smoke, while promoting land management practices that reduce the risk of large, severe wildfires which includes strategic use of prescribed fire (Biden-Harris Administration Agencies Sign Interagency Agreement to Address Wildfire

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Risk and Protect Communities from Smoke | The White House ). The four agencies also released a joint workplan outlining wildland fire-related priorities the agencies will focus on over the next two years. This workplan, which had activity starting in 2023, specifically builds on concerns about the implementation of the new standard for all landowners that use prescribed fire on wildlands. It recognizes the need for greater investment by federal, state and local forestry, air quality and public health agencies who will need to work together to ensure continued use of prescribed fire under the new standard.

**Question 14**: Deputy Under Secretary Harrell, what are the main challenges that lead to a narrow burn window for prescribed fire?

**Answer:** There are many challenges which can lead to narrow burn windows for prescribed fire. Some examples include burning in high-risk areas under very specific fuel moisture conditions, forecasted weather conditions, other prescribed burns planned in the same area and smoke management considerations.

**Question 15**: Deputy Under Secretary Harrell, has the Department considered how innovative technologies can help identify areas that prescribed fire would most benefit?

**Answer:** One example is improved satellite technology such as LANDFIRE to improve mapping products. Through improved mapping we can better define the type and condition of the vegetation to determine areas best suited for prescribed fire use to reduce wildfire risk and improve forest health. See link for more information: https://research.fs.usda.gov/news/featured/new-science-based-model-helps-forest-managers-target-fuels-treatments-where-they-make

**Question 16**: Deputy Under Secretary Harrell, one of the recommendations from the Wildland Fire Mitigation and Management Commission's report calls for funding Innovative Landscapes research areas that link scientists with land and fire managers to assess fire risk, plan fuels treatment, monitor before and after treatment and evaluate change in fire risk using the latest fire models, best data, and new and proven technology. How is the Department currently working with new or proven technology platforms as recommended?

**Answer:** The Forest Service leverages a long history of investment in research and development on the wildland fire and fuels environment to effectively capitalize on new technological developments. Our current suite of modeling approaches is built on historical research investments using the best available science to characterize wildfire hazard and risk, support land and fire management decision making, and inform the Agency's Wildfire Crisis Strategy. These past research investments have linked: 1) systematic and extensive field-based measurements (e.g., vegetation including down dead wood through the Forest Inventory and Analysis Program used to support scenario planning and geospatial maps such a TreeMap, and black carbon deposition from fire and smoke through the National Atmospheric Deposition Program); 2) remotely-sensed 2-dimensional satellite-derived products that allow vegetation and fuels characteristics to be represented across landscapes (e.g., through the interagency LANDFIRE

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and Monitoring Trends in Burn Severity programs, and TreeMap from the Missoula Fire Sciences Laboratory); and 3) models of fire spread and behavior (e.g., FSim; FSPro), weather (e.g., WindNinja), smoke (e.g., Bluesky Playground), and quantitative wildfire risk assessments. Additional 3-dimensional (3D) remote sensing from lidar and 3D imagery from the National Agriculture Imagery Program help improve forest condition mapping for characterizing landscape risks and potential tree stress risk. These efforts incorporate multiple data sources and can run on high-performance computing assets to improve the performance of decision support systems for long-term planning and short-term incident management.

Ongoing technological advances improve our measurement and modeling capabilities in the fire environment. The agency can test and put these advances into practice across multi-jurisdictional landscapes because of a long history of place-based research and adaptive management, consistent with the Innovative Landscapes concept. Forest Service Experimental Forests and Ranges—particularly those with a history of fire-related research or wildfire exposure such as Silas Little (New Jersey), Lick Creek (Montana) and H.J. Andrews (Oregon)—can leverage investments in monitoring technology to provide place-based proof of concept for new modeling systems. These technological monitoring investments include soil moisture monitoring, precipitation chemistry and deposition, carbon flux measurements, and new advances in 3D fuels characterization through airborne and terrestrial lidar, thermal imaging, and satellite remote sensing technologies. Advances in 3D fuels characterization are occurring in parallel to advances in 3D fire behavior modeling, with systems including QUIC-Fire, Fire Dynamics Simulator, BurnPro3D and FastFuels increasingly able to capture complex fire behavior, fire effects, ignition patterns, fire-atmosphere coupling, and smoke dispersion. Research prescribed fire campaigns allow opportunities to test these modeling approaches on the ground, and the Forest Service is a leading partner on the Fire and Smoke Modeling Evaluation Experiment in the western U.S. and the Eastern Innovation Landscape Network, which are regional testbeds for innovative technology that can support the deep place-based knowledge and expertise of land and fire managers.

United States Department of the Interior
OFFICE OF THE SECRETARY
Washington, DC 20240

JAN 17 2025

The Honorable Mike Lee
Chairman
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Lee:

Enclosed are responses prepared by the Department of the Interior to written questions submitted to the Department's witness, Joan Mooney, Principal Deputy Assistant Secretary for Policy, Management and Budget following the Committee's March 12, 2024, hearing to examine the findings and recommendations of the Wildland Fire Mitigation and Management Commission.

Thank you for the opportunity to respond to you on these matters.

Sincerely,

Pamela L. Barkin
Legislative Counsel
Office of Congressional and
Legislative Affairs

Enclosure

cc: The Honorable Martin Heinrich
Ranking Member

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**Questions from Joe Manchin, III**

**Question 1: In 2018, Congress amended the Federal Land Policy and Management Act (FLPMA) to add section 512 requiring the Forest Service and the Department of the Interior (DOI) to develop regulations on vegetation management activities by utilities along rights-of-way on federal lands. Section 512 stipulated that those regulations minimize the use of case-by-case approvals for vegetation management activities. The Forest Service has already promulgated regulations on this topic that provide more flexibility to utilities to conduct vegetation management as needed. Although the addition of section 512 to FLPMA is now 6 years old, the DOI still has not completed its regulations.**

**Does DOI feel that any portion of the Forest Service regulations would not be appropriate to apply to federal lands under DOI's jurisdiction?**

**Response:** The BLM published its final rule to implement section 512 of FLPMA on April 12, 2024. The agency coordinated with the Forest Service in the development of this rule and mirrored the Forest Service's regulations where appropriate, including adoption of the Forest Service definition of hazard tree. The final rule became effective on May 13, 2024.

**What resources is DOI dedicating to finalizing its regulations pursuant to section 512 of FLPMA?**

**Response:** The BLM and DOI dedicated significant resources to drafting and publishing the proposed rule, analyzing comments, and preparing the final rule, which was published on April 12, 2024. The BLM is currently working to prepare step down guidance for BLM employees to aid in implementation.

**Question 2: One of the unanimous recommendations from the Commission's report (Recommendation 147) was to provide more transparency into acres treated for hazardous fuels. Specifically, the recommendation was to provide the number of acres with improved ecological outcomes.**

**Is your agency working to implement this recommendation? Does your agency currently collect sufficient data to report treatments based on outcomes, rather than "acres treated" or "millions of boardfeet?" If not, what additional data is needed?**

**Response:** The recommendation to "provide the number of acres with improved ecological outcomes" parallels the Bipartisan Infrastructure Law's (BIL) requirement that DOI and USDA collectively treat and report 10 million acres where Fire Regime Condition Class (FRCC), which is a metric for ecological condition and outcomes, has been improved. DOI tracks and reports acres on which desired conditions (per management objectives) have been achieved, including

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FRCC-specific reporting in accordance with BIL. "Acres treated" will always remain an important quantifier of workload. Augmenting acre reporting with outcome-based measures will require us to overcome limitations in current data and practice.

New types of reporting necessarily require new data and there is a high degree of *complexity* inherent in DOI in this respect: multiple bureaus with varying missions and outcomes; extremely diverse socio-geographic settings; and management of every type of terrestrial ecosystem in the United States. Nevertheless, we are working to better understand the data and reporting metrics that are needed to support our efforts and supplement current performance reporting. In general, to better characterize DOI-level outcomes at a national scale will require data that more fully span the diversity of DOI lands, ecosystems, and settings than are currently available. This may include data to systematically assess the wildfire exposure and susceptibility of all DOI-relevant assets and resources; connect that information more explicitly to treatment objectives when assessing results; and relate the placement and types of fuels management actions to expected risk mitigation effect on those assets and resources.

**Question 3: Is post-wildfire salvage logging covered under any existing authorities to expedite the NEPA process, such as categorical exclusions or emergency authorities? Do these authorities vary based on whether the logging activities would occur near occupied areas (e.g. roads, trails) or in remote areas?**

**Response:** Post-wildfire salvage logging is addressed by existing authorities including categorical exclusion (CX) in 516 DM 11.9.C(9), which allows for salvaging of dead or dying trees not to exceed 250-acres, requiring no more than 0.5 mile of temporary road construction. Incidental emergency salvage of minor quantities of timber may also occur near occupied areas to protect life or public infrastructure using the authorities in 516 DM 11.9.I(1) or DOI CX 43 CFR 46.210(l).

**How long does it take DOI, on average, to permit salvage logging near occupied areas (e.g. roads, trails) versus remote areas?**

**Response:** Post-wildfire salvage logging is covered by a categorical exclusion (CX) included in 516 DM 11.9.C(9) which allows for salvaging of dead or dying trees not to exceed 250 acres, requiring no more than 0.5 mile of temporary road construction. With the constraints on road construction, the salvage would need to occur within a half mile of an existing road system (e.g., not remote).

Some incidental emergency salvage of minor quantities of timber could occur to protect life or public infrastructure using 516 DM 11.9.I(1) or Interior CX 43 CFR 46.210(l). Given the dependance of protection of life or public infrastructure, these actions would necessarily occur near occupied areas. It takes the BLM approximately 3-4 months to complete analysis of a salvage CX and about 18 months to complete analysis of salvage activities under an

environmental assessment (EA). Additional complexities related to species consultation with regulatory agencies can extend the salvage analysis timeframe. The BLM can typically issue a permit/contract approximately 3 months after completing the NEPA analysis. There is not a significant difference in length of time needed to analyze occupied versus remote areas under an EA. The ability to use the CX within 0.5 miles of occupied areas allows the BLM to significantly reduce NEPA analysis times for eligible projects.

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**Questions from Ranking Member John Barrasso**

**Question 1: In your testimony, you state, "Interior has increased its hazardous fuels treatments by approximately 20 percent from 2021 to 2022 and 30 percent from 2022 to 2023." Please share with the Committee a breakdown of those acres and the funding sources used to treat those acres. Specifically, we would like to see a state-by-state breakdown of acres treated by ownership (i.e., federal, state, tribal, and private lands).**

**Response:** Please see the summary table below of accomplishments from fiscal year (FY) 2021 through FY 2023 by funding source and state. DOI does not track acres treated on non-Federally managed lands.

**Acres of Fuels Treatments Completed by the Department of the Interior, FY 2021-2023, by State**
**Source: National Fire Plan Operations Reporting System (NFPORS)**

| State/Territory | Funding Source | Acres, Fiscal Year 2021 | Acres, Fiscal Year 2022 | Acres, Fiscal Year 2023 | Grand Total, Acres: 2021-2023 |
|---|---|---|---|---|---|
| **Alabama** | Regular Appropriation | 3,603 | 3,137 | 1,290 | 8,030 |
| **Alabama** | BIL | 0 | 78 | 3,815 | 3,893 |
| **Alabama Total** | | **3,603** | **3,215** | **5,105** | **11,923** |
| **Alaska** | Regular Appropriation | 21,189 | 68,319 | 33,156 | 122,664 |
| **Alaska** | BIL | 0 | 2,959 | 15,532 | 18,491 |
| **Alaska Total** | | **21,189** | **71,278** | **48,688** | **141,155** |
| **Arizona** | Regular Appropriation | 137,143 | 78,370 | 77,748 | 293,261 |
| **Arizona** | BIL | 0 | 2,354 | 11,842 | 14,196 |
| **Arizona Total** | | **137,143** | **80,724** | **89,590** | **307,457** |
| **Arkansas** | Regular Appropriation | 8,279 | 4,764 | 2,561 | 15,604 |
| **Arkansas** | BIL | 0 | 0 | 3,355 | 3,355 |
| **Arkansas Total** | | **8,279** | **4,764** | **5,916** | **18,959** |
| **California** | Regular Appropriation | 43,535 | 55,774 | 25,052 | 124,361 |
| **California** | BIL | 0 | 1,575 | 27,669 | 29,244 |
| **California Total** | | **43,535** | **57,349** | **52,721** | **153,605** |
| **Colorado** | Regular Appropriation | 48,706 | 44,258 | 37,565 | 130,529 |
| **Colorado** | BIL | 0 | 6,117 | 31,958 | 38,075 |

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|---|---|---|---|---|---|
| **Colorado Total** | | **48,706** | **50,375** | **69,523** | **168,604** |
| **Connecticut** | Regular Appropriation | 0 | 0 | 0 | 0 |
| **Connecticut Total** | | **0** | **0** | **0** | **0** |
| **Delaware** | Regular Appropriation | 132 | 970 | 192 | 1,294 |
| **Delaware Total** | | **132** | **970** | **192** | **1,294** |
| **Florida** | Regular Appropriation | 226,547 | 221,736 | 200,612 | 648,895 |
| **Florida** | BIL | 0 | 17,402 | 233,719 | 251,121 |
| **Florida Total** | | **226,547** | **239,138** | **434,331** | **900,016** |
| **Georgia** | Regular Appropriation | 21,794 | 15,885 | 21,398 | 59,077 |
| **Georgia** | BIL | 0 | 11,080 | 10,035 | 21,115 |
| **Georgia Total** | | **21,794** | **26,965** | **31,433** | **80,192** |
| **Hawaii** | Regular Appropriation | 6,797 | 10,198 | 116 | 17,111 |
| **Hawaii** | BIL | 0 | 0 | 11,430 | 11,430 |
| **Hawaii Total** | | **6,797** | **10,198** | **11,546** | **28,541** |
| **Idaho** | Regular Appropriation | 201,078 | 270,862 | 150,074 | 622,014 |
| **Idaho** | BIL | 0 | 36,578 | 170,980 | 207,558 |
| **Idaho Total** | | **201,078** | **307,440** | **321,054** | **829,572** |
| **Illinois** | Regular Appropriation | 1,465 | 4,399 | 5,276 | 11,140 |
| **Illinois** | BIL | 0 | 5 | 297 | 302 |
| **Illinois Total** | | **1,465** | **4,404** | **5,573** | **11,442** |
| **Indiana** | Regular Appropriation | 9,407 | 4,071 | 2,593 | 16,071 |
| **Indiana** | BIL | 0 | 2,668 | 9,127 | 11,795 |
| **Indiana Total** | | **9,407** | **6,739** | **11,720** | **27,866** |
| **Iowa** | Regular Appropriation | 4,391 | 9,254 | 9,116 | 22,761 |
| **Iowa** | BIL | 0 | 2,295 | 5,058 | 7,353 |
| **Iowa Total** | | **4,391** | **1,549** | **4,174** | **30,114** |
| **Kansas** | Regular Appropriation | 9,157 | 9,675 | 3,354 | 22,186 |

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|---|---|---|---|---|---|
| **Kansas** | BIL | 0 | 1,457 | 6,075 | 7,532 |
| **Kansas Total** | | **9,157** | **11,132** | **9,429** | **29,718** |
| **Kentucky** | Regular Appropriation | 250 | 135 | 0 | 385 |
| **Kentucky** | BIL | 0 | 0 | 340 | 340 |
| **Kentucky Total** | | **250** | **135** | **340** | **725** |
| **Louisiana** | Regular Appropriation | 8,353 | 13,278 | 38,820 | 60,451 |
| **Louisiana** | BIL | 0 | 3,338 | 14,820 | 18,158 |
| **Louisiana Total** | | **8,353** | **16,616** | **53,640** | **78,609** |
| **Maine** | Regular Appropriation | 112 | 65 | 46 | 223 |
| **Maine** | BIL | 0 | 0 | 51 | 51 |
| **Maine Total** | | **112** | **65** | **97** | **274** |
| **Maryland** | Regular Appropriation | 10,343 | 9,723 | 9,701 | 29,767 |
| **Maryland** | BIL | 0 | 0 | 104 | 104 |
| **Maryland Total** | | **10,343** | **9,723** | **9,805** | **29,871** |
| **Massachusetts** | Regular Appropriation | 137 | 54 | 0 | 191 |
| **Massachusetts** | BIL | 0 | 0 | 21 | 21 |
| **Massachusetts Total** | | **137** | **54** | **21** | **212** |
| **Michigan** | Regular Appropriation | 3,854 | 1,000 | 1,560 | 6,414 |
| **Michigan** | BIL | 0 | 50 | 135 | 185 |
| **Michigan Total** | | **3,854** | **1,050** | **1,695** | **6,599** |
| **Minnesota** | Regular Appropriation | 41,291 | 40,641 | 33,060 | 114,992 |
| **Minnesota** | BIL | 0 | 794 | 7,302 | 8,096 |
| **Minnesota Total** | | **41,291** | **41,435** | **40,362** | **123,088** |
| **Mississippi** | Regular Appropriation | 13,586 | 14,537 | 15,576 | 43,699 |
| **Mississippi** | BIL | 0 | 1,066 | 767 | 1,833 |
| **Mississippi Total** | | **13,586** | **15,603** | **16,343** | **45,532** |
| **Missouri** | Regular Appropriation | 4,180 | 11,977 | 4,202 | 20,359 |
| **Missouri** | BIL | 0 | 137 | 6,103 | 6,240 |
| **Missouri Total** | | **4,180** | **12,114** | **10,305** | **26,599** |
| **Montana** | Regular Appropriation | 58,758 | 47,439 | 49,162 | 155,359 |

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| **Montana** | BIL | 0 | 3,902 | 20,958 | 24,860 |
| **Montana Total** | | **58,758** | **51,341** | **70,120** | **180,219** |
| **Nebraska** | Regular Appropriation | 17,691 | 14,237 | 17,154 | 49,082 |
| **Nebraska** | BIL | 0 | 6,034 | 5,354 | 11,388 |
| **Nebraska Total** | | **17,691** | **20,271** | **22,508** | **60,470** |
| **Nevada** | Regular Appropriation | 202,074 | 197,168 | 120,947 | 520,189 |
| **Nevada** | BIL | 0 | 11,059 | 101,692 | 112,751 |
| **Nevada Total** | | **202,074** | **208,227** | **222,639** | **632,940** |
| **New Jersey** | Regular Appropriation | 1,104 | 1,898 | 1,952 | 4,954 |
| **New Jersey** | BIL | 0 | 0 | 121 | 121 |
| **New Jersey Total** | | **1,104** | **1,898** | **2,073** | **5,075** |
| **New Mexico** | Regular Appropriation | 44,219 | 43,114 | 86,386 | 173,719 |
| **New Mexico** | BIL | 0 | 605 | 63,754 | 64,359 |
| **New Mexico Total** | | **44,219** | **43,719** | **150,140** | **238,078** |
| **New York** | Regular Appropriation | 627 | 1,121 | 530 | 2,278 |
| **New York** | BIL | 0 | 0 | 32 | 32 |
| **New York Total** | | **627** | **1,121** | **562** | **2,310** |
| **North Carolina** | Regular Appropriation | 9,866 | 10,288 | 19,568 | 39,722 |
| **North Carolina** | BIL | 0 | 0 | 4,021 | 4,021 |
| **North Carolina Total** | | **9,866** | **10,288** | **23,589** | **43,743** |
| **North Dakota** | Regular Appropriation | 5,332 | 5,752 | 8,937 | 20,021 |
| **North Dakota** | BIL | 0 | 366 | 2,668 | 3,034 |
| **North Dakota Total** | | **5,332** | **6,118** | **11,605** | **23,055** |
| **Ohio** | Regular Appropriation | 93 | 0 | 0 | 93 |
| **Ohio** | BIL | 0 | 0 | 40 | 40 |
| **Ohio Total** | | **93** | **0** | **40** | **133** |
| **Oklahoma** | Regular Appropriation | 23,588 | 39,053 | 40,916 | 103,557 |
| **Oklahoma** | BIL | 0 | 0 | 6,576 | 6,576 |
| **Oklahoma Total** | | **23,588** | **39,053** | **47,492** | **110,133** |

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| **Oregon** | Regular Appropriation | 134,615 | 152,346 | 142,465 | 429,426 |
| **Oregon** | BIL | 0 | 6,114 | 145,411 | 151,525 |
| **Oregon Total** | | **134,615** | **158,460** | **287,876** | **580,951** |
| **Pennsylvania** | Regular Appropriation | 85 | 96 | 0 | 181 |
| **Pennsylvania** | BIL | 0 | 0 | 108 | 108 |
| **Pennsylvania Total** | | **5** | **96** | **108** | **289** |
| **Puerto Rico** | Regular Appropriation | 485 | 384 | 367 | 1,236 |
| **Puerto Rico Total** | | 485 | 384 | 367 | 1,236 |
| **Rhode Island** | Regular Appropriation | 0 | 0 | 0 | 0 |
| **Rhode Island Total** | | **0** | **0** | **0** | **0** |
| **South Carolina** | Regular Appropriation | 13,913 | 12,619 | 14,098 | 40,630 |
| **South Carolina** | BIL | 0 | 3,981 | 2,653 | 6,634 |
| **South Carolina Total** | | 13,913 | 16,600 | 16,751 | 47,264 |
| **South Dakota** | Regular Appropriation | 89,430 | 128,880 | 124,662 | 342,972 |
| **South Dakota** | BIL | 0 | 1,149 | 7,477 | 8,626 |
| **South Dakota Total** | | **89,430** | **130,029** | **132,139** | **351,598** |
| **Tennessee** | Regular Appropriation | 1,879 | 1,538 | 167 | 3,584 |
| **Tennessee** | BIL | 0 | 50 | 2,213 | 2,263 |
| **Tennessee Total** | | **1,879** | **1,588** | **2,380** | **5,847** |
| **Texas** | Regular Appropriation | 20,881 | 45,821 | 43,592 | 110,294 |
| **Texas** | BIL | 0 | 19,307 | 4,172 | 23,479 |
| **Texas Total** | | **20,881** | **65,128** | **47,764** | **133,773** |
| **Utah** | Regular Appropriation | 74,169 | 65,356 | 24,397 | 163,922 |
| **Utah** | BIL | 0 | 4,041 | 43,240 | 47,281 |
| **Utah Total** | | **74,169** | **69,397** | **67,637** | **211,203** |
| **Vermont** | Regular Appropriation | 0 | 0 | 0 | 0 |
| **Vermont Total** | | **0** | **0** | **0** | **0** |
| **Virginia** | Regular Appropriation | 8,799 | 4,030 | 5,812 | 18,641 |
| **Virginia** | BIL | 0 | 2 | 799 | 801 |

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| **Virginia Total** | | **8,799** | **4,032** | **6,611** | **19,442** |
| **Washington** | Regular Appropriation | 24,939 | 17,372 | 48,499 | 90,810 |
| **Washington** | BIL | 0 | 4,585 | 8,833 | 13,418 |
| **Washington Total** | | **24,939** | **21,957** | **57,332** | **104,228** |
| **West Virginia** | Regular Appropriation | 45 | 79 | 185 | 309 |
| **West Virginia** | BIL | 0 | 0 | 13 | 13 |
| **West Virginia Total** | | **45** | **79** | **198** | **322** |
| **Wisconsin** | Regular Appropriation | 6,333 | 7,724 | 14,994 | 29,051 |
| **Wisconsin** | BIL | 0 | 975 | 3,666 | 4,641 |
| **Wisconsin Total** | | **6,333** | **8,699** | **18,660** | **33,692** |
| **Wyoming** | Regular Appropriation | 108,077 | 90,802 | 111,527 | 310,406 |
| **Wyoming** | BIL | 0 | 35,865 | 42,748 | 78,613 |
| **Wyoming Total** | | **108,077** | **126,667** | **154,275** | **389,019** |
| **Grand Total** | | **1,672,331** | **1,968,187** | **2,586,469** | **6,226,987** |

**Question 2: What is the Department doing to ensure the Infrastructure Investment and Jobs Act and Inflation Reduction Act funds for wildfire risk reduction are spent properly and strategically? What is the Department doing to ensure Wyoming and other states, which are vulnerable to catastrophic wildfires, are receiving sufficient amounts? What more can the Department be doing to increase transparency on this spending?**

**Response**: DOI is taking a number of strategic steps to ensure that decisions about BIL funding and project investments adhere to the goals and objectives of BIL. These include:

- Providing direction and guidance through policy memos that describe the requirements of BIL.
- Providing funding the Interior Office of the Inspector General, as required by BIL, to actively engage in reviews to ensure that funds are properly spent and tracked.
- Providing funding to the U.S. Geological Survey (USGS) to complete a risk assessment and efficacy evaluation of fuels management work.
- Completing annual reports to Congress that are required by BIL that summarize fuels management treatment work completed with BIL funding.
- Using a three-year "outyear" program of work and an "annual" program of work process to determine where funding and future actions should be strategically located and relying

on bureau risk assessments and regional and local staffs' assessments of what work that can best reduce vulnerability to wildfires.

Additionally, the annual President's Budget requests for the Wildland Fire Management program include FY spend plans that detail annual accomplishments and planned work for the upcoming year. The Office of Wildland Fire (OWF) website provides quick access to information regarding funding announcements (Wildland Fire | U.S. Department of the Interior (doi.gov)). We are also working to develop a new application that will improve public access to both planned and completed fuels treatment data, including the work funding by BIL. The Inflation Reduction Act does not include any funding for DOI's Wildland Fire Management program.

**Question 3: The Commission's recommendation #147 states that the success of investments in forest management should instead "be measured by outcomes such as the number of protected assets, values, and resources, and the degree to which forests and rangelands are returned and maintained in a more resilient state."**

a) **Are the Department's current metrics adequate for assessing the effectiveness of forest treatments to reduce risk?**

**Response:** The DOI Wildland Fire Management (WFM) program is implemented via multiple bureaus with different missions and spans not only forested lands but also vast non-forested landscapes. Given the diversity of ecosystems, socio-geographic settings, and local priorities, current DOI metrics focus on the achievement of improved landscape conditions and resilience that in turn broadly mitigate the wide array of risks. This approach is advantageous because it produces common, comparable information across bureaus and landscapes, which in turn provides meaningful national-scale measurement. In that respect, the current metrics are adequate.

b) **Do you believe new performance metrics, such as those proposed by the Commission's report, are better suited to ensuring proper oversight, accountability, and measurement?**

**Response:** DOI concurs with and supports the Commission's recommendations. We also recognize that new metrics require new data. To adequately address the diversity and complexity in DOI program scope mentioned above, the supporting data would need to more fully span the diversity of lands, ecosystems, and settings that under DOI's management jurisdiction than are currently available. We are working to better understand the data and reporting metrics that are needed to support our efforts and supplement current performance reporting.

c) **Are agencies already tracking the proposed performance metrics? And if not, what is needed in order to start doing so?**

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**Response:** Improving upon the current metrics would begin by specifically defining the scope and details of new information requirements. Then, ensuring field-level understanding and capacity to supply that information with adequate quality and consistency would be essential. Finally, a suitable process will be necessary to aggregate highly diverse, DOI-wide information in a coherent, systematic way that is reliable and useful for interpreting national program-level performance. As mentioned above, we are working to better understand the data and reporting metrics that are needed to support our efforts and supplement current performance reporting.

**Question 4: You acknowledge the issue of housing cost as a barrier to the recruitment and retention of wildland firefighters. Base rental rates and administrative adjustments for government furnished housing are calculated by guidance issued by the Office of Management and Budget (OMB). What steps has the Department taken to work with OMB to ensure compliance with Circular A-45 R and the Antideficiency Act via Circular A-11 while simultaneously addressing the Department's housing needs?**

**Response:** The affordability, availability, and quality of housing is becoming a significant barrier to recruitment, retention, and employee advancement within the WFM Program. DOI has engaged with OMB on Circular A-45 and continues to follow all guidance. There has not been any housing or facilities policy that would put DOI at risk of violating the Anti-deficiency Act. To begin to address wildland firefighter housing needs, the President's FY 2025 Budget request includes an increase of $5 million, for a total of $10 million, to repair, renovate, modernize, and construct housing for employees. This increase will support efforts to address inadequate or unaffordable housing facing many wildland firefighters in certain geographic locations.

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**Questions from Senator Mazie K. Hirono**

**Question 1: What specific congressional actions are needed to establish a Community Wildfire Risk Reduction Program and implement the Commission's recommendations for that program that cannot be done by federal agencies themselves?**

**Response:** DOI principally addresses community wildfire risk reduction as part of its Fuels Management and Burned Area Rehabilitation programs in coordination with other Federal, Tribal, state, and local partners. Congress would need to provide authority and funding for federal agencies to establish a Community Wildfire Risk Reduction (CWRR) program. As noted by the Commission, the CWRR program would require "dedicated, sustained, and consistent funding through new and expanded appropriations, which would be provided to the principal coordinating agencies for program implementation, maintenance, and assessment." DOI would also need congressional authority to provide technical assistance programs for low-capacity communities at greatest risk. Currently, only the USDA Forest Service has the authority and funding for the Community Wildfire Defense Grant program, which accomplishes some, but not most, of what the CWRR program was proposed to accomplish.

Federal agencies would need additional authority and funding to provide financial incentives to encourage risk reduction measures to private properties most at risk, and to create or expand programs that support building code or standard adoption and enforcement as proposed by the Commission. Agencies would also need additional resources to advance research and science on best practices for reducing risk to the built environment, engineering principles, in addition to advancing partnerships with the private sector to draw on interdisciplinary expertise specializing in community resiliency as proposed by the Commission. The expansion of the CWRR program to operationalize Commission recommendations related to preparing "smoke ready" communities, water supply protection, and broader workforce development would also benefit federal agencies and ultimately communities.

**Question 2: One challenge in implementing the Commission's recommendations is to scale them down from the federal to local level. To what extent are the various recommendations and opportunities presented in the Commission's reports limited by a lack of federal agency presence in some states (e.g., the lack of U.S. Forest Service lands in Hawaii)? Did the Commission consider the role of existing regional or local entities such as Land Grant or the Joint Fire Science Programs' regional Fire Science Exchanges in applying the Commission's recommendations?**

**Response:** A foundational principal of the Commission's work is that none of the recommendations can be completed by a single entity and require collaboration across the interagency wildland fire management community. To further our work with partners and expand the reach of Federal mitigation and rehabilitation effort, the President's FY 2025 Budget includes a legislative proposal to permit DOI to use of Fuels Management and Burned Area Rehabilitation

program funds for work on non-Federal, non-adjacent lands where the work benefits resources in both jurisdictions. Current authorities limit the use of these funds for work on DOI-administered lands and adjacent non-Federal or Tribal lands only. This limitation constrains cross-jurisdictional landscape treatments and post-wildfire recovery activities. Expanding the authority as described above will help promote coordinated multi-jurisdictional wildfire risk-reduction and recovery efforts, while simultaneously expanding opportunities for non-Federal partners to address wildfire risk in their jurisdiction in partnership with DOI, particularly in states with less of a federal presence.

**Question 3: Are there pathways to move federally available dollars from short-term investments, such as individual projects or grants, to fund longer term or permanent positions or programs at the state or local level? Does the Commission have recommendations for how state and local governments can assess the current workforce capacity and needs for landscape restoration and wildland fire response? Does the Commission have recommendations for how state and local governments can assess whether they are limited by federal requirements, or conversely, underutilizing federal opportunities?**

**Response:** DOI is authorized to use its WFM Appropriations to enter into procurement contracts, grants, or cooperative agreements with Tribal, state, local, and other non-federal partners for fuels management and burned area rehabilitation. As discussed above, the President's FY 2025 Budget proposes to expand DOI's authority to use a portion of its appropriations for this kind of work whether or not it is adjacent to Federal land. This will facilitate cross-jurisdictional work that benefits both the Federal government and partners.

DOI does not administer a program or receive funding for broad personnel capacity for wildland fire management at the state or local levels. BIL authorizes and funds the USDA Forest Service to help at-risk local communities and Tribal Nations plan for and reduce the risk of wildfire through the Community Wildfire Defense Grant program.

The Commission recommends reducing the complexity of federal grant processes through simplification and redesign, citing GAO's analysis of opportunities to improve federal disaster response. The Commission also identified opportunities to support communities to build the capacity necessary to successfully access funds through the provision of technical assistance.

**Question 4: Most of the Commission's recommendations on landscape restoration focus on post-wildfire response rather than mitigation against future wildfire disasters. Are there opportunities for federal agencies to reframe landscape restoration, including native plant restoration, as wildfire mitigation strategies? Does framing restoration only in terms of post-wildfire response limit states and federal agencies to only raise funds after fire has already damaged ecosystems?**

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**Response:** Post-fire recovery is an opportune and critical time to make investments that go beyond restoring baseline conditions to improve the overall resilience of both communities and landscapes to reduce future catastrophic events. Pre-disaster planning is also important for addressing post-disaster impacts. For example, invasive grasses have been implicated in the devastating wildfire that burned through Lahaina in 2023. This challenge would be best addressed by conducting pre-fire landscape restoration work that includes:

- Early detection and rapid response to find and remove new invasions before they become widespread.
- Strategic treatment of known invasions using herbicide.
- Reseeding or replanting with native vegetation.
- Treatment and reseeding with less flammable, non-invasive, non-native plants.

This would restore functioning landscapes and reduce wildfire risk and additional losses supercharged by the co-dependent cycle of invasion and wildfire. While framing restoration as limited to post-wildfire is not accurate, it does not limit Federal or state abilities to only raise funds after wildfires have already damaged ecosystems.

**Question 5: Two of the final report's recommendations involve the use of targeted grazing to reduce wildfire risk from grasses and shrubs. One of these recommendations includes expanding the use of the U.S. Forest Service and Bureau of Land Management authorities to implement livestock grazing. However, none of Hawaii's land is owned by either agency. What authorities or processes, either new or existing, might you envision being implemented by federal agencies to support livestock grazing for fuels management of state and private land in Hawaii? What recommendations do you have for actions that states, counties, and landowners should take in addition to federal agencies?**

**Response:** Changing land use patterns are a major contributor to Hawaii's evolving fire risk. Lands formerly devoted to industrial agriculture such as Sugar Cane and Pineapple are now fallow or becoming developed as part of the growing wildland urban interface. Cattle ranching has historically been a significant component of Hawaii's agriculture. As Hawaii continues to grow and tourism dominates the economy, agriculture has become much less significant in the state's economy.

Grazing in the wildfire ignition zone adjacent to the urban interface could significantly reduce fire risks by creating 'defensible space'. The most significant obstacle could be the economic viability of grazing cattle. Most dairy and meat in the island is imported from the US Mainland and abroad. Federal assistance could be used to make cattle grazing more economically viable, especially in lower elevations where native forests would not be impacted.

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Suggestions for additional actions that can be taken include: Providing grant funding for helping private landowners with fire education and fuels treatments; encouraging private landowners to landscape with fire-resistant non-invasive plants; installing wildfire cameras at appropriate sites; establishing Fire Safe Councils; upgrading and hardening power infrastructure and implementing "Public Safety Power Shutoffs" as a last resort safety measure taken by utility providers to help prevent wildfires.

Given the relatively small fraction of the Hawaiian landscape that is in DOI jurisdiction, it's unlikely that DOI treatments could ever make a difference at the statewide scale. Targeted grazing could be an important part of the equation, but it generally is not effective in Hawaii for more than a few months. Hawaii has a year-round growing season, and there is a flush of fine fuels every time it rains and then cures back out, which can happen 1,2,3, or even 4 times a year. Even during one of those green-up events, Hawaii is in fire season when given a few rain-free days. Part of the challenge is that ungulates are very much part of the of the ecological degradation and invasive/fire cycle here, so while it could be effective at a very targeted, it's not a landscape solution. There is such resistance to fuels treatments, they have to be maintained on an almost monthly or similarly frequent basis.

The USFWS doesn't have current authorities to direct state or private landowners to target graze on their lands/jurisdictions.

The USFWS Partners for Fish and Wildlife Program and the Coastal Program have authorities to partner through voluntary agreements (Cooperative and Grant Agreements) with private landowners and state agencies providing financial as well as technical assistance on conservation projects where target grazing could be the mechanism for hazardous fuels reduction.
The USFWS's Wildlife and Sportfish Restoration Program can work with various entities in support of fish and wildlife conservation, habitat conservation, coastal wetlands enhancement through technical assistance and grant administration.

The Consolidated Appropriations Act of 2024 included language granting the National Wildlife Refuge System the Good Neighbor Authority. Good Neighbor Authority can support Refuges in forest, rangeland, and watershed management by entering into agreements with states, counties and federally recognized Tribes to conduct certain projects on Federal Lands in pursuit of a specific land management goal.

**Question 6: The final report suggests using virtual fencing to improve targeted grazing. It acknowledges the high upfront cost of virtual fencing but suggests it could yield long term savings compared with building and maintaining physical fences. Are existing federal programs able to provide enough financial support to overcome the high upfront cost of virtual fencing, particularly for large flocks or herds? Or, are additional program flexibilities and funding needed?**

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**Response:** Although the BLM does use virtual fencing, there is no known existing program in the NPS to fund virtual fencing on state and private lands and FWS does not have program flexibility to support virtual fencing operations. Additionally, Hawaii has an extremely harsh climate including high humidity, excessive rainfall, salt spray, and volcanic gasses. Electronic devices (including virtual fencing) have a very limited lifespan in this environment. The basis for most of Hawaii's conservation effort is ungulate exclusion. The consequences of any breach of fence line are extremely high and could create major setbacks to investments in the restoration and preservation of native plant communities. These impacts could be compounded by complications with virtual fencing.

Emergency Stabilization and Burned Area Rehabilitation funds are available to exclude grazing/protect native plant recovery on lands managed by the DOI. Fencing can be applied on private lands through the Wyden Amendment to assist in the recovery of native vegetation. However, given the unique situation that Hawaii is in with regard to extremely harsh climates, it is likely that program flexibilities and funding needs will be high. These considerations suggest that financial support for virtual fencing would be high up front as well as for continued maintenance and upkeep.

**Question 7: The tragedy that unfolded in Lahaina showed that we need to better predict wildfires and monitor high risk areas. It also showed that we need better data available for first responders to make smarter and more informed decisions, especially in states like Hawaii with highly variable terrain that can be difficult to navigate. What gaps exist in wildfire data coverage for Hawaii, and what can the federal government do to use the most up to date technology, such as next generation, near real-time satellite monitoring, to best protect at-risk communities? Moreover, what steps can federal agencies, including those within the Department of the Interior, take to incorporate near real-time fuel moisture and other fire-related environmental data into its risk models to improve Hawaii's ability to predict and respond to fires?**

**Response:** This is as much a social issue as a data and technology issue. This is not the first time that pre-hurricane winds resulted in drying and caused increased fire danger and loss of structures in Hawaii. The notifications that an increased fire potential existed ahead of the 2023 Hurricane and subsequent fire did occur as part of NWS's hurricane advisory. However, not much has been done in the way of improving data layers, etc. specifically for Hawaii.
The gaps in wildfire data coverage are enormous. Almost none of the systems commonly used in the lower 48 are available in Hawaii. Until adequate and representative layers and systems exist, the ability to model and forecast risk is untenable. Getting the basics established could provide huge benefits in protecting Hawaiian communities. It would be difficult to try to implement "next generation" solutions without the basics.

Hawaii is unique that the Counties are the primary jurisdictional authority for wildfire response. There is relatively little Federal Land Management and even less Federal Fire Response in the

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State of Hawaii. The state and local governments do not participate in most of the federal wildfire systems including 209 reporting, interaction with GACCs, etc.

There are gaps in the weather monitoring and predictive services, but Hawaii nearly always experiences severity conditions somewhere in their fire zones every month of the year. Critical Fire Weather patterns are the primary driver of large fire events. These include Tradewind Inversion layers, and dry airmasses in front of approaching hurricanes. Fire managers already know when their critical events are going to occur several days in advance. These events are recognizable, and the Fire Weather Watch and Red Flag Warning Systems from the NWS have been accurate over the past several years. Unfortunately, there is limited ability to do anything about it.

A big lesson from Lahaina might be that most communities in Hawaii have only one egress route, and they need better signing and planning for mass evacuation from whatever the hazard may be, whether that be tsunami, hurricane, eruption, earthquake, wildfire, or something else. For that August 8th event, wind gusts recorded at one of the FWS RAWS showed 82mph; there is nothing beyond evacuation that will be effective under those conditions.

To summarize the two parts of the question, helpful starting points include things like: getting the basics (data) established, development of a Statewide Master Cooperative Agreement, shared radio frequencies, common fire reporting, interoperability of communication systems, statewide dispatching, fire investigation and prevention, effective aviation assets, ability for Federal wildland firefighters to operate out of Hawaii aircraft, command and control of aviation assets, IMT experience, Master Cooperative Agreement (this is finally getting started for Hawaii, but still a distant dream for the rest of the Pacific Islands), etc. A Hawaii-specific website (similar to a GACC site) with appropriate information could be useful, once that information is developed. This is specifically addressed in the Wildfire Commission Report (not specific to Hawaii, but the idea would serve Hawaii well): SUPPORTING ON THE GROUND DECISIONS -- a Fire Environment Center. See p. 209/340 (p. 194 in the document): On Fire: The Report of the Wildland Fire Mitigation and Management Commission, September 2023 (usda.gov).

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**Questions from Senator James E. Risch**

**Question 1: In Idaho, many land management projects are often delayed, if not completely prevented, due to severe agency staffing shortages. The Commission's report reflects upon this reality and mentions the extreme need for staffing in federal land management agencies. What is your agency doing to address office staffing shortages, and what strategies are being applied to retain current employees?**

**Response:** The Commission recommends that a comprehensive, expanded, and sustainable workforce is essential for fire response, risk reduction, and recovery efforts to change the damaging trajectory of wildfire. Longer and more intense wildfire seasons are resulting in recruitment and retention challenges for federal agencies. In addition, better pay offered by some states makes recruitment and retention challenging in certain geographic areas of the country.

To address these challenges, DOI is continuing the workforce transformation efforts that were started in 2021 to convert more temporary employees to permanent positions and to expand recruitment strategies to increase hiring. In FY 2024, the Department provided the temporary pay supplementals to wildland firefighters that were first authorized by BIL. The President's FY 2025 Budget request includes an increase of $75 million for a permanent pay increase for wildland firefighters and carries forward the legislative proposal that was first included in the President's FY 2024 Budget request that, among other things, establishes a new special base rate salary table for firefighters and creates a new premium pay category.

The President's FY 2025 Budget request also proposes increases in funding for a joint health and wellness program (+$10 million) and firefighter housing (+$5 million) and includes funding to increase workforce capacity (+$40 million). DOI has also held wildland firefighter hiring events in certain locations. Collectively, these workforce reform proposals and activities are supporting the DOI's efforts to recruit and retain wildland firefighters and build a year-round workforce.

**Question 2: Wildfires have an outsized impact on public recreation areas. These recreation areas offer myriad benefits to states like Idaho, including valuable resources to assist fire mitigation and response efforts.**

**a. How will the agency ensure opportunities for recreation remain available as we plan for and mitigate against wildfires?**

**Response:** The BLM continues to collaborate with county, state, and other federal agency partners to provide recreational resources for the public and ensure that we include important recreation infrastructure and other recreation values identified in our environmental analyses. For example, fuel reductions projects are subject to NEPA. During environmental review under NEPA, the BLM's interdisciplinary team identifies mitigation to reduce or eliminate any impacts to recreation. We look for areas to prioritize where values are at risk from wildfire, especially where we have willing partners.

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**b. What opportunities do you see for recreation infrastructure to augment resiliency goals by, for example, using trails to move people and supplies during wildfire events, using campsites, trails or other recreation areas as firebreaks, etc.?**

**Response:** The BLM continues to identify recreation infrastructure (including trails and campsites) as values and where we have willing partners to work across boundaries, we do so. Recreation infrastructure sometimes does play a role in augmenting resilience goals; campsites and trail systems are commonly used in wildland fire response and are part of the resources considered before, during, and after wildland fire response. Recreation-based trails can serve as fuel breaks and provide access for firefighters during fuel reduction projects and during fire suppression. Additionally, the BLM completes hazardous fuels work to protect existing recreation infrastructure, create defensible space at developed recreation sites, and enhance staging areas for responding to wildfires.

**c. How does interagency cooperation facilitate this kind of work, and is there room for improvement? Please explain.**

**Response:** Interagency cooperation plays an important role before, during, and after wildland fire response. Priority projects located in proximity to agency boundaries highlight the need for continued collaboration across jurisdictions. The BLM continues to identify opportunities to work with the U.S. Department of Agriculture Forest Service (USFS), which often manages large, continuous blocks of recreational acres. In contrast, BLM-managed public lands are sometimes scattered and juxtaposed with private, county, state, and other federal ownerships. This difference in land management pattern highlights the need for hazardous fuel reduction projects and fire response to be completed by interagency teams. Expanded interagency collaboration will help to achieve more on-the-ground accomplishments, and seasonality helps to facilitate interagency collaboration. For example, BLM-managed public lands tend to be lower in elevation and can have an earlier seasonal timeframe for project work. USFS-managed lands tend to be higher in elevation and have a later seasonal timeframes for project work.

**d. Recreationists often volunteer to assist in recovery efforts after wildfires. Did the report identify any opportunity to utilize volunteers to help ensure recreational trails, sites, and areas can be used as opportunities to mitigate, suppress, or aid in wildfire response?**

**Response:** Recreation and wildland fire programs regularly collaborate in project development and implementation, and often consider opportunities to include wildfire protection strategies. In some cases, volunteer projects can and do support opportunities to mitigate the risk of wildland fire, this type of collaboration will continue to play an important role in the BLM's recreational

trails, sites, and area management planning. Volunteers are a vital part of the BLM trail maintenance program, and volunteers typically perform maintenance on existing trails. As previously addressed, recreational trails and campgrounds, often constructed or maintained through volunteer programs, can be utilized in wildfire suppression actions.

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**Questions from Senator Steve Daines**

**Question 1: Principal Deputy Assistant Secretary Mooney, a finding in the Aviation Report indicated that aircraft contracts favor short term expediency over long term value. What is DOI doing to prioritize "best value" in their contracting?**

**Response:** The Department recognizes the potential value that lengthier term aviation contacts could provide to both the Federal government and the contractor, such as assurances of availability and savings for the government and certainty for the contractor. Longer and more intense wildfire seasons have made DOI more reliant on call when needed aircraft and DOI is looking at ways to increase the availability period of our exclusive use contracts. DOI continues to analyze the feasibility of lengthier aviation contracts balancing the potential savings with safety, air worthiness, and the application of new technologies. The President's FY 2025 Budget requests an additional $5 million to increase the length of availability on our exclusive use contracts to address increasing contract costs.

**Question 2: Principal Deputy Assistant Secretary Mooney, one of the Wildland Fire Mitigation and Management Commission's recommendations was to expand grazing to mitigate fire risk. What is the Department doing to facilitate grazing on public lands? What is the main challenge to grazing on public lands?**

**Response:** The Department implements a broad range of land management tools to reduce wildfire risk, including grazing. In particular, grazing is a frequent activity under the BLM's multiple-use and sustained yield mission set forth by FLPMA. Under the right conditions, grazing can be a viable part of at-scale, coordinated risk reduction strategies.

**Question 3: Principal Deputy Assistant Secretary Mooney, did the Department have discussions with the Environmental Protection Agency on the impact the National Ambient Air Quality Standards changes would have on the use of prescribed fire prior to that rule being finalized? Does the Department anticipate any constraint on the use of prescribed fire due to the change?**

**Response:** DOI continues engaged in conversations with the Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), and the Centers for Disease Control (CDC) on the impact the National Ambient Air Quality Standards changes would have on the use of prescribed fire prior to the rule being finalized. As we implement the GAO recommendations to DOI on wildfire smoke and air quality, we do not expect that EPA's recently proposed new air quality standards will significantly affect DOI's efforts to increase the pace and scale of prescribed fire.

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We recognize the importance of collaborative efforts across our agencies. In November 2023, DOI, EPA, USDA, and the CDC signed a joint memorandum of understanding (MOU) and workplan that commits the agencies to working together to align regulations, policies, and practices to promote the mutual objectives of protecting public health from the impacts of smoke and enabling land management practices that reduce the risk of future large, high severity fire events and restoring the local natural fire return interval. The MOU communicates the importance of significantly increasing the application of prescribed fire in a strategic and coordinated manner.

**Question 4: Principal Deputy Assistant Secretary Mooney, how has the Department engaged with the memorandum of understanding that the Department signed with the Environmental Protection Agency, the Centers for Disease Control and Prevention, and the Department of Agriculture to enable the expansion of prescribed fire?**

**Response:** As part of the MOU, the agencies developed a joint workplan that is intended to define the areas of focus for the partners during FY 2024 and FY 2025. These areas include community preparedness, developing pathways to align public health and land management objectives, data collection and sharing, and interagency communication and messaging. The MOU has served as a springboard for successful coordination and recent tabletop exercises in Oregon, Georgia, and California with representatives from the states, DOI, USDA, EPA, CDC, and local and Tribal partners. The exercises focused on smoke forecasting and monitoring capabilities and new technologies that will enable Federal agencies and other land management and public health partners to better inform and prepare communities for smoke events. The exercises will help identify gaps in knowledge where research endeavors could further inform some of these activities.

**Question 5: Principal Deputy Assistant Secretary Mooney, has the Department considered how innovative technologies can help identify areas that prescribed fire would most benefit?**

**Response:** The Department uses a variety of innovative technologies to assess landscape conditions, wildfire probabilities, and values-at-risk to determine the appropriate fuels management treatment strategies to apply on the land. Prescribed fire is not an appropriate fuels management tool for *all* DOI-administered lands. For example, in landscapes where invasives are driving a too-frequent fire regime, other fuel treatment actions (e.g., herbicide, fuel breaks) are more appropriate. For other landscapes with high fuel loading, one or several mechanical or manual treatments, over multiple years, may be needed prior to implementing prescribed fire. We are partnering with the USGS to help develop tools that will inform the successful sequence of fuel treatments to support future prescribed fires on the land. Sustained investments in the full scope of fuels treatments are paramount to continue to maintain the long-term beneficial effects of reducing wildfire risk and restoring fire resilience. Additionally, the FY 2025 President's Budget proposes the development of a Joint DOI-USDA Office for Wildfire Science and

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Technology to assess and lead the development and deployment of technology, science, and data for wildland fire management. The office will contribute to a better understanding of the data and technological needs to better support prescribed fire activities.

**Question 6: Principal Deputy Assistant Secretary Mooney, one of the recommendation from the Wildland Fire Mitigation and Management Commission's report calls for funding Innovative Landscapes research areas that link scientists with land and fire managers to assess fire risk, plan fuels treatment, monitor before and after treatment and evaluate change in fire risk using the latest fire models, best data, and new and proven technology. How is the Department currently working with new or proven technology platforms as recommended?**

**Response:** The Innovation Landscape Network pilot program aims to replace reliance on older fire behavior models and outdated manual monitoring methods with new tools and technologies. The Innovation Landscape Network connects managers across the DOI's land management agencies with researchers, modelers, and emerging technologies to promote a co-production model of developing research to operational applications. Pilot studies of the Innovation Landscape Network have been initiated in Arizona.

DOI is making considerable investments in technological innovation for research in support of management applications in wildland fire management. These include the use of hyperspectral sensor data to characterize postfire soil and smoke, LIDAR point-cloud data to generate 3-D vegetation (or fuels), advanced analytics to predict postfire hazard potential from pre-fire conditions, and Machine Learning to automate processing of satellite data to map changing fuels and vegetation. USGS is also working with Los Alamos National Lab, Department of Defense, and other agencies to improve, evaluate and apply coupled atmospheric and fire behavior models.

Additionally, OWF is also partnering with the USGS to develop innovative approaches to assess fire risk that will improve priority, type, and location of fuel treatments, enhance monitoring of fuel treatments, and evaluate changes in wildfire risk over time and space. This work will help DOI assess the lands where maintaining previous wildfire risk reduction work is critical to ensuring long-term success in wildfire risk reduction.

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**Questions from Chairman Joe Manchin, III**

**Question 1:** *The Environmental Protection Agency (EPA) recently released regulations lowering the amount of acceptable air particulates, which could increase the regulatory burden to conduct prescribed fire in some areas. Even though the EPA previously agreed to provide fire practitioners with new tools to make getting a permit easier, the regulations include no such tools.*

*Has the EPA conducted proactive outreach to the Colville Tribes to help them navigate the exceptional event permitting process? How long do Tribes estimate preparing such a permit would take?*

**Response**: The EPA has not conducted outreach associated with the exceptional events rule but has been engaged with Colville on revisions to the Federal Air Rules for Reservations (FARR). While this tool gives tribes some control over air quality standards on their reservation the program is limited to tribes in Idaho, Oregon, and Washington.

The Commission believes that the exceptional events pathway offers one component of the solution to both increase the use of beneficial fire and protect human health (see Recommendation 42). However, agencies should evaluate the process and make necessary changes to enhance programmatic and procedural ease.

As the Clean Air Act is currently written, exceptional events are limited to unusual or naturally occurring events. Prescribed fire may be eligible for an exceptional events demonstration outlined in an August 2019 memo and document from EPA. To meet this criterion the prescribed fire plan must include the intended objective, whether the prescribed fire followed a natural fire return interval or was conducted to conform with a fire return interval identified in a resource management plan. Preparation of these documents should be rapid enough to allow significant increases in the use of prescribed fire; ideally taking less than one month. Unfortunately, the approval process for EPA takes considerably longer, and as long as up to one year according to the flowchart included in the August 2019 guidance document (EPA-457/B-19-004).

**Questions from Ranking Member John Barrasso**

**Question 1:** *As we heard at the hearing, a robust timber industry is critical to addressing the wildfire crisis. However, we continue to see declining levels of timber harvest on federal land, while we watch millions of acres of commercial timber go up in smoke each year. What is your assessment of the situation on federal lands? And, what challenges do fewer harvests mean for your members?*

**Response**: Based on Forest Service harvest data harvest levels have been fairly consistent since the mid-1990's, but considerably less than the four prior decades. To meet the restoration need across the 193 million acres of National Forest System (NFS), and 247 million acres under BLM management the number of acres treated should be considerably higher. Forest Restoration should include a combination of commercial and non-commercial timber treatments, along with

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prescribed fire. That work should happen based on current landscape conditions, and risk to ecosystems, communities, and infrastructure. Based on a 2022 Forest Service report 63 million acres of NFS lands were at high or very high wildfire risk. Conditions vary across the country, but generally there needs to be considerably more restoration and fuel work to create resilience on federal lands (as called for in Commission recommendation 17). The additional 50 million acres of treatment across federal, State, Tribal and private lands over the next 10 years as identified in the USFS Wildfire Crisis Strategy is a positive initial step assuming we can collectively accomplish that amount of work within that timeline.

The timber industry will be an important tool if we are to meet those lofty goals. Reduced harvest on federal land increases risk on the landscape and reduces the benefits to local rural economies that historically had been supported by the timber industry in some geographies. Federal land with poor forest health and increased wildfire risk also draws down the collective interagency suppression resources all land managers depend on. When fires start on unmanaged federal land and spread to threaten adjacent communities and landowners they require large incident management teams to suppress the fire. That resource need is extended for months in some situations, which reduces the overall suppression workforce available for all others. Particularly those land managers that have better management practices and are deemed to have a lower risk.

To address the need for mechanical and commercial harvest, the Commission recommends that Congress invest in fuels reduction treatments, support and expand existing programs like the Collaborative Forest Landscape Restoration Program, invest in wood processing facilities, biomass utilization research, and the adoption of new technologies to develop innovative wood products (see Commission recommendations 17-21). Additionally, to increase the use of prescribed fire, the Commission recommends Congress address issues of liability, and that the agencies work to develop strategic plans, improved resource ordering for prescribed burns, and improved recognition of tribal fire management (see Commission recommendations 10-15).

**Questions from Senator Mazie K. Hirono**

**Question 1:** *One challenge in implementing the Commission's recommendations is to scale them down from the federal to local level. To what extent are the various recommendations and opportunities presented in the Commission's reports limited by a lack of federal agency presence in some states (e.g., the lack of U.S. Forest Service lands in Hawaii)? Did the Commission consider the role of existing regional or local entities such as Land Grant or the Joint Fire Science Programs' regional Fire Science Exchanges in applying the Commission's recommendations?*

**Response:** The Commission did recognize the complexities and unique challenges that exist across the country. The recommendations were intended to be broad enough to allow for more specific local solutions to be developed that met the needs of each community or region. The

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Commission also recognized that groups active in management and mitigation varied by region, so the intent was to provide adequate flexibility to work with the appropriate partners at the local or regional scale. Moreover, the Commission specifically recognized the need for treatments to be ecologically appropriate based on local conditions and needs.

The Commission also recognized the value of the Joint Fire Science Exchange Program and called for an expanded role for the program to work with regional partners to develop and implement watershed health-related research (see recommendation 35).

Regarding agency wildfire response in states like Hawaii, the Commission specifically recognized the increased risk of wildfire in Hawaii and U.S. Pacific Territories due to climate change and changing land use patterns. The Commission recommended development of a national aviation strategy that considers specific aviation needs outside of the continental U.S. and noted a potential increased role for the Department of Defense (see Aerial Equipment Strategy Report recommendation 13).

**Question 2:** *Are there pathways to move federally available dollars from short-term investments, such as individual projects or grants, to fund longer term or permanent positions or programs at the state or local level? Does the Commission have recommendations for how state and local governments can assess the current workforce capacity and needs for landscape restoration and wildland fire response? Does the Commission have recommendations for how state and local governments can assess whether they are limited by federal requirements, or conversely, underutilizing federal opportunities?*

**Response**: The potential pathways to move federally available funds vary depending on the funding type and agency authorities. There was a recognition that long term investments in staffing and projects were needed to make consistent improvements in landscape health and resilience. The Commission was very cognizant of the role of state, local, tribal, and nongovernmental employees in the overall wildfire mitigation and management workforce and found that a significant expansion of the workforce is needed to meet the current challenge. The Commission specifically recommends the expansion of a workforce primarily focused on mitigation and management, including potentially through the use of block grants to state, local and tribal governments (see recommendation 89).

Quantification of the specific workforce needs is challenging with no one model or approach covering all needs. The Indian Forest Management Assessment Team (IFMAT) report required under the National Indian Forest Resource Management Act (NIFRMA) requires a decadal report to Congress comparing the management of tribal land to that of other federal agencies. Based on the report completed in 2023 Tribal forestry would need an additional $96 in Forestry funding, and $ 42 million in wildfire funding. Tribal/BIA forestry staff were responsible for twice as many acres as their Forest Service counterparts, and six times more than their BLM counterparts.

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Regardless of the scale or unit of government, comprehensive plans should be developed for staffing, considerations for growth through time in a systematic way that is sustainable over decades. The Commission did recognize there were both staffing and funding limitations and had several recommendations that addressed those issues (see recommendations 89-93).

**Question 3:** *Most of the Commission's recommendations on landscape restoration focus on post-wildfire response rather than mitigation against future wildfire disasters. Are there opportunities for federal agencies to reframe landscape restoration, including native plant restoration, as wildfire mitigation strategies? Does framing restoration only in terms of post-wildfire response limit states and federal agencies to only raise funds after fire has already damaged ecosystems?*

**Response:** The Commission recognized the value of restoration and fuels management work prior to wildfires occurring. Indeed, the need for increased attention and investment in proactive action, including mitigation and planning in both the built and natural environments was one of seven key themes of the Commission. They also recognized that proper functioning ecosystems, with native vegetation should be a goal of the land managers. Many of the recommendations in chapter 1 are intended to provide the resources and planning for a proactive approach to fire management, including mitigation. Specifically, the Commission called for the creation of a Community Wildfire Risk Reduction Program to proactively address wildfire risk reduction actions in the build environment (see recommendation 1). In the natural environment, the Commission calls for increased mitigation work through regionally appropriate means, including grazing and other treatments to reduce annual invasive grasses, mechanical treatments, and, where ecologically appropriate, the use of beneficial fire (see recommendations 17, 22, and 23).. While the Commission does call for improved post-fire recovery, this also includes calls for proactive planning for the post fire environment before fires occur, allowing for more efficient and effective recovery in the event of a fire (see recommendation 66).

**Questions from Senator James E. Risch**

**Question 1:** *The Commission's report recommended the expanded use of Good Neighbor Authority as an effective fuels management tool. Can you expand on how GNA receipt retention would better incentivize tribes and counties to participate in GNA projects? Why are those projects so necessary when it comes to fire mitigation?*

**Response:** Under the current authority tribes and counties have the ability to enter into Good Neighbor Agreements but cannot use the revenue generated from those projects to complete restoration activities. Without the ability to use project revenue the tribe or county would be responsible for the costs associated with restoration work on Forest Service land. Most tribes and counties have limited financial resources, so project implementation becomes cost prohibitive quickly. If tribes and counties were given authority to use program revenue they would have a sustainable funding source to not only carry out the restoration activities on the

current project, but potentially cover the costs of planning and NEPA on the next project. With deliberate planning this becomes a self-perpetuating cycle where the forest products generated from the restoration work pay for improved forest health and landscape resilience indefinitely. Because of the current backlog and risk, we face it is critical to complete restoration at a pace and scale that is commensurate with the problem we face. Delays in completing this work only extend the risk and danger to our landscapes and communities.

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**Questions from Chairman Joe Manchin, III**

**Question 1:** *Has Denver Water completed a cost-benefit analysis into cost-per-acre for forest health treatments? If so, how does that compare with the costs to deal with the consequences of a severe wildfire in your watershed?*

**Response**: Denver Water partnered with Colorado State University and the Colorado Forest Restoration Institute to complete a retrospective cost-benefit analysis of investments in forest restoration and wildfire mitigation between 2010-2019 within Denver Water's watershed. The study concluded that combined the investment of around $60 million between 2010-2019 in forest treatments produced net benefits (total benefits minus total costs) of up to $234 million (Jones, K., Chamberlain, L., Gannon, B., and Wolk, B (2021). A Cost-Benefit Analysis of Denver's Forests to Faucets Program, 2011-2019. CFRI-2102)[1].

Denver Water's incurred costs after the Buffalo Creek and Hayman wildfires include $18.5 million to dredge a drinking water reservoir and over $9 million increased water treatment and operations costs. These statistics does not include the landscape scale watershed restoration and reforestation costs associated with recovery from the Buffalo Creek and Hayman wildfires.

In addition, a Federal Emergency Management Agency (FEMA) report indicates that for every $1 spent on natural disaster mitigation saves around $6, further supporting the Commission's core principle of proactive mitigation in the natural and built environment to reduce wildfire costs and impacts.

**Questions from Senator Mazie K. Hirono**

**Question 1:** *One challenge in implementing the Commission's recommendations is to scale them down from the federal to local level. To what extent are the various recommendations and opportunities presented in the Commission's reports limited by a lack of federal agency presence in some states (e.g., the lack of U.S. Forest Service lands in Hawaii)? Did the Commission consider the role of existing regional or local entities such as Land Grant or the Joint Fire Science Programs' regional Fire Science Exchanges in applying the Commission's recommendations*?

**Response:** The Commission recognized that addressing the issue of wildfire will require all elements of society, not just the federal government. Indeed, there is no one single entity - federal or otherwise - that is responsible for responding to wildfires, let alone the broader mission of mitigation and management. The Commission recognized that state, local, and Tribal governments all play a significant role in wildfire management.

The Commission made a number of recommendations that could help bolster local entities in all aspects of wildfire management. These include the creation of an interagency Community

[1] https://cfri.colostate.edu/wp-content/uploads/sites/22/2021/02/Jones-et-al-F2F-ROI-Final.pdf

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Wildfire Risk Reduction Program (CWRRP), which would help align various federal programs - not just Forest Service programs - to reduce risk to communities and in the built environment more generally (see Commission recommendation 1). A core component of the program, as envisioned by the Commission, would be to provide support to non-agency partners to enhance local capacity in developing and coordinating community risk reduction strategies. Many of the funds that could be accessed through the program would be through the Federal Emergency Management Agency.

The Commission also sees the CWRRP as playing a role in coordinating existing research programs, such as those in the Joint Fire Science Exchange Program (JFSP), for which the Commission also recommended increased funding (see recommendation 111). Furthermore, the Commission called for an expanded role for the JFSP to work with regional partners to develop and implement watershed health-related research (see recommendation 35).

Important to note, while the agencies and many of the programs that would be coordinated within the CWRRP already exist, it is likely to require congressional action to encourage and direct such sweeping changes to the current approach to wildfire management.

**Question 2:** *Are there pathways to move federally available dollars from short-term investments, such as individual projects or grants, to fund longer term or permanent positions or programs at the state or local level? Does the Commission have recommendations for how state and local governments can assess the current workforce capacity and needs for landscape restoration and wildland fire response? Does the Commission have recommendations for how state and local governments can assess whether they are limited by federal requirements, or conversely, underutilizing federal opportunities?*

**Response:** Increasing the stability and accessibility of federal programs is a key theme woven throughout many of the Commission's recommendations. Multiple recommendations touch on the need for sustained, multi-year funding, from the programmatic level (see recommendation 111 mentioned above, as well as recommendation 90 calling for multi-year contracting), to the macro appropriations scale (see recommendation 120). The Commission also recognized the need to improve the accessibility and transparency of federal programs, in part through the creation of the CWRPP umbrella structure previously noted (see recommendation 1). Furthermore, the Commission found that there is no "one size fits all" answer; policies, systems, and solutions must be flexible enough to be informed by community and local needs. This requires increasing the accessibility of federal grants for communities, including through the waiver of match requirements when needed (see recommendations 142 and 143).

The Commission was also very aware that state, local, tribal, and nongovernmental employees are critical and often undercounted actors in wildfire management. The Commission recommended the expansion of these workforces to address not only wildfire response but also mitigation and recovery programs. One pathway that the Commission noted is the use of block

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grants to state, local and tribal governments (see recommendation 89). Additionally, the Commission saw a role for federal agencies to provide - and for Congress to support - expanded mitigation training opportunities for the entire workforce (see recommendation 95).

**Question 3:** *Most of the Commission's recommendations on landscape restoration focus on post-wildfire response rather than mitigation against future wildfire disasters. Are there opportunities for federal agencies to reframe landscape restoration, including native plant restoration, as wildfire mitigation strategies? Does framing restoration only in terms of post-wildfire response limit states and federal agencies to only raise funds after fire has already damaged ecosystems?*

**Response:** The Commission did offer recommendations related to the recovery of post-fire landscapes but we also made many - if not more - recommendations on how to mitigate risk on landscapes before a fire ever starts. Some recommendations speak generally to improvements in how we conduct mechanical treatments, utilize grazing, and apply prescribed fire (see Chapter 1, Mitigation in the Natural Environment). More specifically, as I noted in my testimony, the Commission recommends mitigation work to protect community water supplies, (see recommendation 35). This could be accomplished through the expansion of existing programs like the Collaborative Forest Landscape Restoration Program, the Joint Chiefs Landscape Restoration Partnership, and through research through the JFSP. Overall, the Commission placed a strong emphasis on mitigation, finding that investments in pre-fire mitigation and resilience need to be significantly increased to reduce long-term costs and risks. This was in fact a major theme of the Commission report.

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**Questions for the Record Submitted to Ms. Kelly Norris**

**Questions from Chairman Joe Manchin, III**

**Question 1: The Environmental Protection Agency (EPA) recently released regulations lowering the amount of acceptable air particulates, which could increase the regulatory burden to conduct prescribed fire in some areas. Even though the EPA previously agreed to provide fire practitioners with new tools to make getting a permit easier, the regulations include no such tools.**

**How many exceptional events permits has the State of Wyoming prepared for prescribed fires? Has your Department ever considered not conducting a prescribed fire in an area because that burn would cause a National Ambient Air Quality Standards exceedance?**

Wyoming has not prepared any exceptional event demonstrations for prescribed fire. It is our understanding the only state to do so is California and the documentation found on the EPA's website has us concerned that the exceptional events demonstration process will be burdensome for states.

In Wyoming, we do follow the Wyoming Department of Environmental Quality (DEQ) smoke management and open burning permit process for prescribed fire treatments such as slash or hand pile burning. The permit and reporting process is pretty straightforward, and Wyoming DEQ has an annual smoke management training each year for fire management agencies. More information can be found at the Wyoming DEQ smoke management website: https://deq.wyoming.gov/aqd/smoke-management-and-open-burning/.

**Questions from Ranking Member John Barrasso**

**Question 1: Will you outline the challenges Wyoming faces with respect to fire risk, and how can the state help the Forest Service meet its treatment goals?**

Wyoming faces challenges similar to many Western states. Our forests are overstocked and at risk of catastrophic wildfires that put lives, critical infrastructure, and resources such as our watersheds, at risk. While the science to mitigate these risks is well understood, and we are making progress in addressing these risks, there are several challenges to addressing them at the scale needed.

- The Wildland Urban Interface (WUI) is expanding in Wyoming, as more homes and energy infrastructure such as windmills and solar panel farms are built in fire-prone areas. There is little interest in regulation to reduce residential development in the WUI. Efforts have instead focused on homeowner education, fuel reduction, and defensible space development.

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- Approximately 85% of Wyoming's forests are owned and managed by the federal government. Addressing forest health and wildfire risks on these lands at the scale needed requires planning through the NEPA process. This can be time-consuming and expensive. Additionally, NEPA decisions are sometimes litigated, holding projects up indefinitely. Commission recommendations # 32 and 33 include expanding NEPA planning capacity and making planning more effective and efficient. This would be helpful in Wyoming.

- Hiring and retaining a skilled workforce.

- State Forestry can help the Forest Service meet treatment goals. We are using our resources to actively manage our state and private lands, and we are utilizing the Good Neighbor Authority to help the Forest Service meet treatment goals on National Forest System Lands. State Forestry is expanding its capabilities in anticipation of increased Good Neighbor Authority work.

- Cross-boundary projects are critically important to reducing Wyoming's wildfire risk impacts. It is very common to have houses or infrastructure located directly adjacent to US Forest Service lands, and it is within these areas wildfire can easily cross out of Forest Service lands and on to state and private lands, burning into our communities and municipal water infrastructure. These types of wildfires end up being extremely costly, and tend to have long-term negative consequences to the communities impacted. State Forestry stands ready to engage in landscape level, cross boundary management with the US Forest Service.

**<u>Question 2:</u> Can you please provide an overview of the Good Neighbor Authority (GNA) program in Wyoming? We would appreciate a breakdown by year of the state's GNA accomplishments.**

**What improvements can be made to the GNA Program?**

Wyoming GNA Overview

The Good Neighbor Authority program in Wyoming is thriving with 2024 set to be the most productive year since the program started. By the end of 2024, State Forestry's goal is to enter into agreements with every national forest in Wyoming, except the Ashley National Forest.

Currently, Wyoming State Forestry Division (WSFD) has one permanent and three at-will employee contract (AWEC) GNA positions, as well as one seasonal. The Black Hills National Forest, the Medicine Bow-Routt National Forest, and the Bridger-Teton National Forest each have one year-round AWEC GNA forester. The seasonal GNA forester completes work in the summer field season in the Bighorn National Forest. WSFD has one additional forester AWEC position that is funded through a 50-50 split between state and federal funds, and is set up to be funded from the Medicine-Bow Routt National Forest and Wyoming BLM.

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All GNA staff are fully integrated with State Forestry's permanent field staff, being directed by the Division's Assistant State Forester - Operations and the District Foresters. This allows for consistent direction, support, and administration of the program.

The 2024 Wyoming legislature approved an additional five positions for the GNA program increasing the amount of positions State Forestry can hire up to a total of ten. These additional three permanent and two at-will employee contracts are vital to growing a successful program in Wyoming. With the additional positions in mind, WSFD hopes to double productivity across the Forest Service and Bureau of Land Management Lands within the next 5 years.

**Key accomplishments to date include:**

- WSFD has contracted over 11,000 acres of Good Neighbor Authority projects on federal lands through its contracting system. This includes over 6,700 acres of timber sales, producing almost 32 million board feet (mbf) to Wyoming sawmills.

- In 2024, Wyoming State Forestry will contract out over 12,000 acres of NEPA assessments including wildlife surveys on the Black Hills and Medicine Bow Routt National Forests, showing the benefits and flexibility of the GNA program.

- The Fallen Pines GNA Timber Sale, located in the Medicine Bow Routt National Forest will go out for bid in 2024 and encompasses over 1,500 acres of USFS, BLM, State, and private lands. This will be Wyoming's first multi-federal agency GNA timber sale and it is expected to provide 10 million board feet (mbf) of commercial timber to the local Wyoming timber industry.

**GNA Program Accomplishment Data- State Fiscal Year (July 1 - June 30th)**

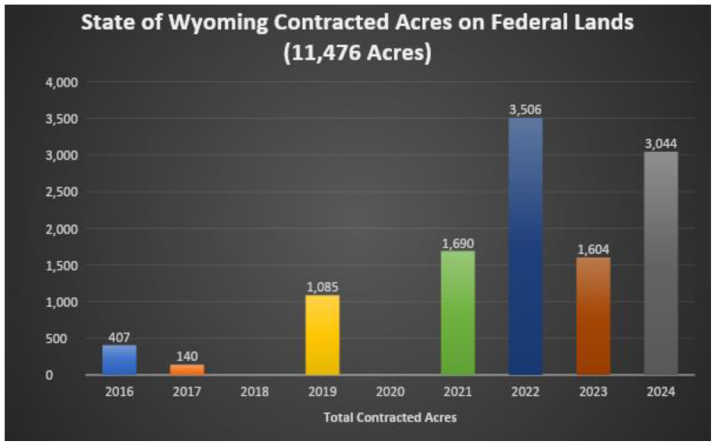
| GNA Timber Sales by State Fiscal Years | | | |
|---|---|---|---|
| Year | # Timber Sales | Volume (mbf) | Acres |
| 2019 | 4 | 7,136 | 686 |
| 2020 | | | |
| 2021 | 5 | 5,758 | 1,357 |
| 2022 | 15 | 11,120 | 2,294 |
| 2023* | 4 | 1,192 | 814 |
| 2024 | 5 | 6,268 | 1,631 |
| **Total:** | **33** | **31,474** | **6,782** |

* 2 timber sales sold, then Contractor defaulted, and were returned. 1,753 mbf and 243 acres.

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GNA Service Contracts (thinning, aspen enhancement, fuels treatments)

| GNA Service Contracts by State Fiscal Year | | |
|---|---|---|
| Year | # Contracts | Acres |
| 2019 | 2 | 399 |
| 2020 | | |
| 2021 | 2 | 333 |
| 2022 | 4 | 1,212 |
| 2023 | 4 | 790 |
| 2024 | 6 | 1,413 |
| **Total:** | **18** | **4,147** |




**Improvements to the Program:**

- Permanently authorizing all aspects of the program. It is hard to plan and commit resources to a program that is not permanently in place. States need consistency and predictability within the GNA program for it to continue to successfully grow.

- Expand GNA authority to all federal lands: Wyoming has a unique opportunity to conduct important fuels mitigation treatments within Wyoming State Parks, which are actually Bureau of Reclamation (BOR) lands. The BOR currently doesn't have authorization to implement GNA projects.

- Increase flexibility in the GNA agreements:

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- Simplify agreements and limit the number of different funding sources. This flexibility would allow for more effective implementation to occur through the agreements. One example is allowing for modifications or new agreements to occur more than one time per year.

- More flexibility in how funding can be used and where it can be used. It would be helpful to utilize GNA funds or revenue on cross boundary work - private or state lands or other federally managed lands.

- The BLM GNA program agreements are not accessible and have barriers that make it hard for a State to work through. This process should be simplified. The US Forest Service has an excellent model for agreements that should be utilized as a template for all federal land management agencies that implement GNA.

- Consistent and predictable position funding: It is extremely hard to build a program and plan for long term success when budgets are short notice. Long-term position funding would allow for long-term success and building GNA plans with these federal agencies

**<u>Question 3:</u> The Forest Service has had three years to begin distributing billions of additional dollars that Congress provided through the Infrastructure Investment and Jobs Act to carry out wildfire mitigation and ecosystem restoration activities. What challenges has Wyoming faced when trying to access these funds?**

- Competition for Funding: Wyoming will face competition from other states that are ranked higher in priority. The demand for resources may also exceed the available funding, making it challenging to secure the necessary funds for infrastructure projects in the state.

- Matching Funds and Cost-Sharing Requirements: Some funding programs under the IIJA may require Wyoming to provide matching funds or cost-sharing contributions. Meeting these requirements poses a financial challenge for the state, particularly as our biennial budget limits our short term flexibility to allocate resources.

- Administrative Capacity and Resources: Wyoming must have the administrative capacity and resources to effectively manage and oversee the implementation of funded projects. This includes conducting feasibility studies, preparing grant applications, managing contracts, and ensuring compliance with reporting requirements.

- Environmental and Regulatory Compliance: Projects funded under the IIJA must comply with various environmental regulations and permitting processes. Wyoming will have to navigate these requirements to avoid delays and potential legal challenges that could impede project implementation.

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- Rural and Remote Challenges: Wyoming's rural and remote nature presents unique challenges in accessing and delivering infrastructure investments. Some of these funds have requirements associated with underserved communities, and the Climate and Economic Justice Screening Tool (CEJST) that is used as the standard for delivering these funds only covers a very small portion of Wyoming. The inflexibility of not allowing Wyoming to choose who our underserved populations are, can make it difficult to create meaningful, applicable, and deliverable projects.

**Question 4: In Wyoming, local sawmills have been struggling to stay operational in the Black Hills. This is in large part due to Forest Service actions that have dramatically reduced timber harvest levels. If additional sawmills close, what will the impact be to forest management in the Black Hills?**

- The timber industry is a critical partner in addressing wildfire risk and managing healthy, resilient forests. Wyoming's timber industry has been shrinking for a long time and cannot survive without a sufficient and consistent supply of available timber.

- Fuels management projects are expensive and the best option we have for reducing that expense is having nearby mills. If sawmills close thereby eliminating the market for forest products, rather than collecting revenue from management, we will have to pay for it.

- There simply is not enough money to treat all the acres that need it. Losing more mills in Wyoming will result in fewer acres being treated, and issues such as insect and disease epidemics or wildfire will become more prevalent. For example, in the Wyoming Black Hills area, fuels reduction projects cost approximately 10 times less than they do on the Front Range of Colorado, which results in less acreage being treated in Colorado for the same dollars. The Black Hills National Forest is the healthiest National Forest in Wyoming. This is not because of luck or that it is an island forest. It is because of the long history of robust active forest management occurring within and directly around the National Forest on state and private lands.

- Wyoming State Forestry has been working closely with the Bearlodge Ranger District through the use of our GNA program, to help build capacity and to continue to implement active management. We are currently administrating 10 active GNA timber sales, assisting with timber sale prep on future timber sales, and will be contracting out wildlife NEPA assessments for future vegetation management projects.

- Reduced Timber Harvest and Forest Thinning: With fewer sawmills operational, the demand for timber from the Black Hills forests would decrease. This reduction in demand will lead to a decrease in timber harvest levels and forest thinning activities, which are crucial for maintaining healthy forest ecosystems. Without sufficient thinning, forests will become more susceptible to insect infestations, disease outbreaks, and wildfire risk.

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- Economic Impact on Local Communities: Sawmills play a vital role in the local economy, providing employment opportunities and supporting related industries such as logging and transportation. The closure of additional sawmills would result in job losses and economic hardship for workers and communities dependent on the forest products industry. This could lead to population decline, decreased tax revenues, and increased social challenges in affected areas.

- Forest Health Decline: Reduced timber harvest levels will exacerbate forest health issues in the Black Hills, including overcrowding, competition among trees for resources, and increased vulnerability to disturbances such as wildfires and insect outbreaks. Without active management, forest health will decline, leading to changes in species composition, reduced wildlife habitat quality, and diminished ecosystem services.

- Impact on Wildlife Habitat: Healthy forests in the Black Hills provide critical habitat for a variety of wildlife species, including elk, deer, bear, mountain lions, turkeys, and numerous bird species. Changes in forest management practices resulting from sawmill closures could alter habitat conditions and availability, affecting wildlife populations and biodiversity in the region. Wyoming's mule deer population has been in a steady decline over the past decade, much of this is a result of not enough early seral stage habitat availability. The Black Hills will need to provide early seral stage habitat for this important wildlife species.

**Questions from Senator Mazie K. Hirono**

**Question 1: One challenge in implementing the Commission's recommendations is to scale them down from the federal to local level. To what extent are the various recommendations and opportunities presented in the Commission's reports limited by a lack of federal agency presence in some states (e.g., the lack of U.S. Forest Service lands in Hawaii)? Did the Commission consider the role of existing regional or local entities such as Land Grant or the Joint Fire Science Programs' regional Fire Science Exchanges in applying the Commission's recommendations?**

The report emphasizes a whole-of-government approach in which federal entities support state and local governments and recognizes a need to utilize and strengthen existing programs rather than create new ones. The State Fire Assistance and Volunteer Fire Assistance programs are examples of successful existing programs that provide federal assistance to state and local governments. Similarly, recommendation 47 calls on Congress to modernize long-standing state-to-state compacts that allow for the interstate sharing of state and local resources.

The report also contains recommendations that are specific to the federal land management agencies, and these would not be applicable to lands that are not managed by those agencies.

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The Commission did consider existing entities across the spectrum from pre-fire mitigation to wildfire response, and post-fire recovery. Recommendations within Chapter 6 "Integrating Science and Technology" include:

- # 111, Increase and provide multi-year funding for existing research entities and programs. Examples stated include the Joint Fire Science Program, along with Forest Service research stations, national research labs and other entities.
- # 112, Incentivize partnerships with private sector researchers and foundations
- # 114, Expand Support for the development and application of scientific research. This recommendation identifies land grant universities, extension services, state forestry and agricultural agencies, non-governmental organizations and tribes as potential partners.

**Question 2: Are there pathways to move federally available dollars from short-term investments, such as individual projects or grants, to fund longer term or permanent positions or programs at the state or local level?**

Some limited pathways may exist within certain programs, but there is a large need for greater funding certainty and flexibility so states and local governments can respond in a long-term, programmatic manner. Relevant recommendations include:

- # 120 Congress should provide advanced appropriations for wildland fire mitigation.
- # 122 Congress should authorize USDA and USDI to fund pre- and post-fire project work using current "fire response" sub-activities in each account.
- # 133 Congress should ensure that agencies have sustained funding to maintain wildfire risk and resilience improvements.

**Does the Commission have recommendations for how state and local governments can assess the current workforce capacity and needs for landscape restoration and wildland fire response?**

The Commission report does not have any specific recommendations for how state and local governments can assess their current workforce, but the report highlights a significant need to expand the workforce across the state, local, federal, and private sectors to meet landscape restoration, community preparedness, fire suppression response, and post-fire response needs. Chapter five is dedicated to building a comprehensive workforce, and recommendations 89 - 92 are most relevant to tribes, states, and local governments.

**Does the Commission have recommendations for how state and local governments can assess whether they are limited by federal requirements, or conversely, underutilizing federal opportunities?**

The Commission report does not have any recommendations specific to assessing if they are limited by federal requirements or underutilizing opportunities. But it does recognize that "governance systems and structures must become more inclusive and involve greater collaboration among federal agencies, and between federal agencies and non-federal

governments, organizations, and communities." (pg. 18) and throughout the report it is recognized that funding flexibility is needed to address local needs.

**Question 3: Most of the Commission's recommendations on landscape restoration focus on post-wildfire response rather than mitigation against future wildfire disasters. Are there opportunities for federal agencies to reframe landscape restoration, including native plant restoration, as wildfire mitigation strategies? Does framing restoration only in terms of post-wildfire response limit states and federal agencies to only raise funds after fire has already damaged ecosystems?**

While the report mostly discusses thinning and beneficial fire as the tools to accomplish hazardous fuels reduction goals, the Commission recognized that "local analysis and decision-making are critical to designing appropriate treatments in specific locations" (pg. 55). Native plant restoration can be an important wildfire mitigation strategy in certain ecosystems, such as those with highly flammable invasive grasses, and while not specifically mentioned as a hazardous fuels reduction strategy, it fits within many recommendations calling for an increase in hazardous fuels reduction. A few notable recommendations related to hazardous fuels reduction include 17, 130, and 132, this should include assistance to non-federal landowners through existing Cooperative Forestry Act and Natural Resource Conservation Services (NRCS) programs.

Recommendation 78 details a need to develop the seed capacity necessary to support post-fire restoration, which is also relevant to pre-fire mitigation. It describes the codification of and adequate funding for the U.S. Forest Service Reforestation, Nurseries, and Genetic Resources (RNGR) program as one of the ways to help meet this need. The National Association of State Foresters is a long-term partner in this program and supports efforts to codify and fund the program.

While the Commission Report frequently lumps pre and post-fire work together, it is clear that hazardous fuels reduction and landscape restoration prior to fire are critical to addressing the wildfire crisis. It is widely recognized that hazardous fuels mitigation work done prior to a fire can significantly reduce fire response and post-fire recovery costs. Pre-fire mitigation and post-fire mitigation both need to be adequately funded.

**Questions from Senator James E. Risch**

**Question 1: My FIRESHEDS bill would allow states to work with federal agencies across jurisdictional boundaries to conduct land management projects within the most fire-prone areas. Could you explain how codifying shared stewardship would better mitigate wildfires in western states like Idaho and Wyoming?**

Codifying shared stewardship through the proposed bill would significantly enhance wildfire mitigation efforts in western states like Idaho and Wyoming. By allowing states to collaborate

with federal agencies across jurisdictional boundaries, the bill promotes coordinated land management projects in the most fire-prone areas. This approach facilitates the pooling of resources, expertise, and authority from both state and federal entities, enabling more comprehensive and effective wildfire prevention, preparedness, and response strategies.

Shared stewardship ensures that management decisions are informed by local knowledge and priorities while leveraging the technical and financial resources of federal agencies. By integrating state and federal efforts, the bill enhances the capacity to implement proactive measures such as prescribed burns, fuel reduction projects, and forest thinning, which are essential for reducing wildfire risk and promoting ecosystem resilience. Moreover, codifying shared stewardship fosters stronger partnerships between state and federal agencies, enhances accountability, and facilitates adaptive management practices tailored to the unique challenges and landscapes of western states. Overall, the bill empowers states like Idaho and Wyoming to take a proactive and collaborative approach to wildfire mitigation, ultimately enhancing the protection of communities, ecosystems, and natural resources in the region.

American Property Casualty Insurance Association
INSURING AMERICA apci.org

**Statement of David A. Sampson, President & CEO of the American Property Casualty Insurance Association, and Member of the Wildland Fire Mitigation and Management Commission**

**Senate Energy and Natural Resources Committee**

**Hearing to Examine the Findings and Recommendations of the Wildland Fire Mitigation and Management Commission**

March 12, 2024

Chairman Manchin and Ranking Member Barrasso, thank you for holding today's hearing to examine the findings and recommendations of the Wildland Fire Mitigation and Management Commission (Commission). Wildfire events impacting communities have grown in severity and number over the past several years, and this hearing provides an opportunity to hear directly from various Commission members representing federal, state, and tribal perspectives on ways to reduce the risk of catastrophic wildfires in the U.S.

I would also like to share my perspective as a member of the Commission, representing the property development industry seat. It has been an honor to work with the diverse group of Commission members to develop policy recommendations to Congress - to better mitigate, manage, and recover from wildfires. I am also the President and CEO of the American Property Casualty Insurance Association (APCIA), which represents 65 percent of the U.S. property casualty insurance market.[1]

Property casualty insurers have long been engaged in ongoing efforts to prevent and reduce devastation from natural catastrophes, including wildfires. Further, property casualty insurers are on the frontlines working to help individuals, families, homeowners, businesses, and governments identify and reduce their wildfire risk, promote preparedness, and assist in post-disaster recovery. This includes the creation and funding of research-focused organizations like the Insurance Institute for Business & Home Safety (IBHS). IBHS is a leader in the development of evidence-based solutions to effectively reduce wildfire risk and other harm to communities, including its Wildfire Prepared Home program.[2] This voluntary designation program, launched in California, allows homeowners to take preventative steps to mitigate wildfire risk for their home and yard.

While there are many natural causes of wildfires, such as lightning strikes, humans caused 87 percent of wildfire ignitions in the U.S. over the last decade as more people live and recreate in areas prone to

[1] APCIA represents the broadest cross-section of home, auto, and business insurers of any national trade association. APCIA members represent all sizes, structures, and regions, protecting families, communities, and businesses in the U.S. and across the globe.
[2] https://wildfireprepared.org/

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wildfires.[3] Increasingly, many regions in the U.S. are experiencing evolving man-made and natural environmental conditions that are making them more prone to burn. For example, federal and state policies that have allowed declines in forest health further contribute to increased wildfire risk, while local land use policies have allowed substantial community development and population migration in the wildland urban interface (WUI) – an area where the built environment meets or intermingles with nature. The collective impacts of such policies have put a growing number of communities directly in harm's way.[4]

Separately, the intensifying impacts from climate change and drought are enabling fires to ignite more easily and spread more rapidly, resulting in more catastrophic losses as ember storms consume entire communities in mere hours. Wildfire seasons are longer and more intense, particularly in the West. Many parts of the East, which has nearly 28 million homes located in zones prone to burn, have seen smaller but impactful increases in fire weather putting more people at risk.[5]

As a result, the U.S. is increasingly experiencing unprecedented economic and insured losses due to wildfire. For example, global insured wildfire losses in the last decade were more than five times higher than prior decades, largely driven by the wildfires in California.[6] Since 2017, U.S. insurers have experienced 8 of the top 10 costliest insured wildfires ever, globally.[7]

***The effects of warmer and drier conditions were demonstrated throughout the U.S. in 2023, resulting in increased fire risk.***

In its 2023 National Overview[8], the National Centers for Environmental Information (NCEI) noted based on preliminary analysis, 2023 ranked as the fifth warmest year in the 129-year record. Most of the contiguous U.S. experienced above-average temperatures during 2023. Additionally, NCEI noted the contiguous U.S. average annual precipitation was 29.46 inches, 0.48 inch below average, ranking in the driest third of the 129-year record. According to the U.S. Drought Monitor (USDM), drought coverage across the contiguous U.S. remained significant for the third year in a row.

These abnormally warm and dry conditions contributed to devastating wildfires in multiple states in 2023 which are not typically accustomed to such events, including in North Carolina, Tennessee, Georgia[9], and the tragic fires of Maui. Record wildfires in Canada further resulted in extremely smoky conditions blanketing northeastern states for extended periods, causing air quality to plummet to "very dangerous" or "hazardous" levels for the first time in some regions.[10] Following an abnormally warm winter in Texas[11], these very conditions have resulted in Texas currently battling the state's largest wildfire on record.

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[3] https://www.nifc.gov/fire-information/fire-prevention-education-mitigation/wildfire-investigation
[4] Increasing Wildfire Risk in the Wild, Wild West (Nov 2022) at https://www.apci.org/attachment/static/7103/
[5] https://www.climatecentral.org/climate-matters/fire-weather-2023
[6] Swiss Re Institute
[7] Aon Climate & Catastrophe Insight
[8] https://www.ncei.noaa.gov/access/monitoring/monthly-report/national/202313
[9] https://www.foxweather.com/weather-news/nc-popular-drive-fire-forrest
[10] https://www.cnn.com/2023/09/17/us/air-quality-wildfire-pollution-allergy-dg/index.html
[11] https://www.texasmonthly.com/news-politics/texas-warm-el-nino-winter/

***To protect communities across the U.S. and prevent conflagration-scale devastation, mitigation in the natural and built environment is critical. A holistic approach is needed to combat this significant long-term challenge.***

The Commission's final report[12] contains several important takeaways for policymakers. The first is that we must shift our overall approach to wildfires from reactive to proactive, which includes investing in "proactive planning, mitigation, risk reduction, and the workforce needed to accomplish these tasks" to break the current cycle of increasingly severe wildfire risk, damage, and loss.[13] Another important takeaway, and essential connection for policymakers, is that actions taken to reduce risk "must encompass both the built and natural environment."[14]

The Commission report identifies policy recommendations to reduce risk in the natural environment such as removing excess fuel loads and restoring beneficial fire to the landscape in a safe manner. It also highlights the need to better manage fine fuels that ignite easily (e.g., grasses and shrubs), such as through expanding the use of grazing and other tools that can play a critical role in reducing fast moving fires. These recommendations are important to restore balance in the natural environment and reduce the risk of catastrophic fires.

Adapting communities to be more resilient to wildfire is also imperative. We must slow the spread of fire and prevent transition from the natural environment into the built environment where conflagration may occur. This is critical to preventing loss of life and property and is also crucial in reducing harmful environmental contaminants. The Commission developed recommendations to drive mitigation within the built environment, including promoting improvements to land-use planning, building codes, and defensible space. Recommendations also focused on continued investments to support hardening utility infrastructure, which the insurance industry supports as a growing number of utility-involved ignitions across multiple western states during high wind events are resulting in the costliest and deadliest losses in history. If adopted and implemented, these measures can help save lives and protect communities from immediate and long-lasting impacts.

The Commission's final report includes 148 consensus-based recommendations, which highlight the critical need to improve federal policies at every stage of the wildfire cycle —before, during, and after fire -- to reduce the risk of catastrophic wildfires and the harmful impacts to communities and the environment. This includes better integration of technology, data, tools, and ensuring workforce and capacity.

[12] https://www.usda.gov/sites/default/files/documents/wfmmc-final-report-092023-508.pdf
[13] https://www.usda.gov/sites/default/files/documents/wfmmc-final-report-092023-508.pdf
[14] Ibid.

Below are some selected recommendations within each fire stage to illustrate the comprehensive approach taken by the Commission.

BEFORE FIRE - REDUCING WILDFIRE RISK:

**NATURAL ENVIRONMENT**

- **PRIORITIZE AND INVEST IN FUEL REDUCTION TREATMENTS** — Invest in and make fuel reduction planning more effective and efficient; change the system of land management agency performance metrics beyond acres treated to actual risk reduced. *[See Report Recommendation(s): 17, 33, 147]*
- **FACILITATE PRESCRIBED BURNING** — (1) Direct Federal agencies develop a strategic plan for the implementation of prescribed fire at a national scale and clarify the extent to which non-federal partners in this plan have Federal Tort Claims Act protection when burning on federal lands. (2) Create a compensation or claims fund for burn damages to third parties that can quickly provide financial relief in instances of escape – also examine whether Farm Service Agency and Natural Resources Conservation Service programs can be used to compensate producers for forage losses due to the use of beneficial fire. (3) Direct EPA, DOI and USDA to work together to expeditiously evaluate current federal regulations (such as the exceptional events pathway) around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire. *[See Report Recommendation(s): 10, 11, 12, 42, 59]*
- **FACILITATE MECHANICAL THINNING TREATMENTS** — Invest in wood processing facilities and the wood utilization sector as well as programs to help private landowners dispose of woody biomass. Incentivize pilot projects for biofuels and biomass utilization technologies as well as the adoption of new technologies and processing systems to produce value added, and demand-driven innovative wood products. *[See Report Recommendation(s): 19, 20, 21, 27]*
- **FACILITATE FINE FUELS REDUCTION** — Manage fine fuels and shrubs through the expanded use of flexible, targeted grazing and develop new, nimble ways to apply targeted, off-season grazing to treat invasive annual grasses. *[See Report Recommendation(s): 22, 23]*
- **ACCELERATE HAZARDOUS FUELS REDUCTION** — Reduce red tape and accelerate funding to more quickly address hazardous fuels by expanding hazardous fuels authorizations by predetermined amounts above appropriations. *[See Report Recommendation(s): 25]*

**BUILT ENVIRONMENT**

- **COMMUNITY WILDFIRE RISK REDUCTION PROGRAM** — Establish an interagency coordinating partnership to reduce program friction and create greater alignment and support to proactively address wildfire risk reduction actions and increase ignition resistance of the built environment. *[See Report Recommendation(s): 1]*
- **UPDATE EXISTING FEDERAL PROGRAMS TO INCLUDE WILDFIRE —** Integrate wildfire risk reduction measures and technical assistance into existing programs. *[See Report Recommendation(s): 2]*
- **IMPROVE HAZARD ASSESSMENTS —** Support data procurement and analytic systems to inform building codes/standards and promote ignition resistant construction and defensible space. Evaluate need to refine and/or expand state and national wildfire hazard datasets. *[See Report Recommendation(s): 4]*
- **IMPROVE HAZARD DISCLOSURES —** Require all-hazard risk disclosures for real estate transactions involving all federally backed mortgages. *[See Report Recommendation(s): 5]*

- **INCENTIVIZE COMMUNITY PREPARATION ACTIVITIES —** (1) Create incentives to encourage state, local, and Tribal governments to improve land use planning while increasing accessibility of federal grants for wildfire risk reduction efforts. (2) Incentivize innovation in affordable building material design, subdivision design, landscape architecture, and safe and sustainable building practices to create more ignition-resistant structures and communities. *[See Report Recommendation(s): 3, 6, 142]*
- **UTILITY HARDENING —** While continuing resilience investments in energy infrastructure systems, develop both federal standards for electric utility wildland fire mitigation plans and consistent rules and processes for wildfire management of federal rights-of-way. *[See Report Recommendation(s): 7, 8, 9]*

**WORKFORCE, TECHNOLOGY & DATA**

- **CREATE MITIGATION WORKFORCE** — Create and train a fire workforce primarily focused on restoration and mitigation, to include a Reservist Program to increase both planning and implementation capacity. *[See Report Recommendation(s): 55, 89, 93, 95]*
- **FIRE ENVIRONMENT CENTER —** Establish interagency joint office (Fire Environment Center) for comprehensive assessment and prediction of fire in the wildland and built environment interface to inform land and fuels management, community risk reduction, and fire management and response. *[See Report Recommendation(s): 104, 105, 106]*
- **EXPAND SHARED DATA —** Support data collaboration to advance modeling and to improve codes, standards, and ignition-resistant materials. *[See Report Recommendation(s): 107, 108]*
- **IMPROVE TOOLS —** Direct relevant agencies to adopt new and existing technologies to improve the mitigation and management of wildfire and establish more flexible means to work w private sector. *[See Report Recommendation(s): 117, 118]*

<u>DURING FIRE — RESPOND</u>:

- **SUPPORT THE FRONTLINE** — Increase wages and benefits for the federal wildland fire workforce and make permanent the Wildfire Suppression Operations Reserve Fund. *[See Report Recommendation(s): 84, 121]*
- **SMOKE MONITORING AND MITIGATION CAPABILITIES —** Invest in national monitoring and alert systems and public strategies to mitigate smoke impacts. *[See Report Recommendation(s): 43, 44]*
- **STREAMLINE EVACUATION PROTOCOLS —** Provide support for local entities to utilize the best available technology and develop consistent methods for evacuation, including incorporating a new national standard of evacuation terminology based on “Ready, Set, Go!” terminology. *[See Report Recommendation(s): 45, 46]*

<u>AFTER FIRE — RECOVER</u>:

- **SPEED-UP RECOVERY** — Increase the deployment speed of community mitigation and recovery funds for wildfires while also accelerating individual recovery and increasing flexible housing options. *[See Report Recommendation(s): 61, 71, 72, 73, 74]*
- **EXPAND RECOVERY —** Expand FEMA Public Assistance-eligible activities to cover downstream risks caused by wildfire and review/amend existing programs for barriers which prevent distribution of funds to mitigate impacts from higher flows as a result of wildfire. *[See Report Recommendation(s): 63, 79]*

- **FACILITATE RECOVERY —** Expand existing/create new Categorical Exclusion (N12) to include activities associated with post-wildfire soil stabilization and erosion control measures. *[See Report Recommendation(s): 81]*
- **TECHNICAL SUPPORT —** Increase funding and technical assistance to state, local, tribal and territorial partners to manage post-fire recovery. For example, by amending the Stafford Act to allow Section 1206 funding for code enforcement for up to 24 months rather than the current 180 days. *[See Report Recommendation(s): 68, 70]*

Thank you for the opportunity to highlight the Commission's work and for your consideration of the recommendations. We stand ready to serve as a resource as the Committee works to advance wildfire solutions.

March 26, 2024

The Honorable Joe Manchin
Chair
Senate Energy & Natural
Resources Committee

The Honorable John Barrasso
Ranking Member
Senate Energy & Natural
Resources Committee

Re: The Stewardship Project Testimony for the Senate Energy & Natural Resources Committee Titled "Full Committee Hearing to Examine the Findings and Recommendations of the Wildland Fire Mitigation and Management Commission"

Dear Chairman Manchin and Ranking Member Barrasso:

On behalf of the Stewardship Project, we would like to thank you for the opportunity to submit testimony regarding the Wildland Fire Mitigation and Management Commission report. The Stewardship Project is a collaboration of leading academics and cultural fire practitioners supported by the Climate & Wildfire Institute. This new initiative is intended to promote greater use of active stewardship in the United States to address the wildfire crisis, and in particular, to highlight the importance of and promote the use of beneficial fire[1] undertaken by Tribal entities, including Tribes, Tribal organizations, and cultural fire practitioners.

Several of our members served as commissioners and we are proud of the Tribal and cultural burning recommendations that they championed. We are grateful that the Committee chose to hold a hearing to highlight the many insightful recommendations that came out of the Commission.. While not all of these recommendations are within the jurisdiction of the Senate Energy & Natural Resources Committee, we want to share our top priorities and find ways to work together to expand active stewardship and cultural burning, especially as mitigation for the wildfire crisis.

Recommendation 10: *Congress should advance legislation to support a compensation or claims fund for burn damages to third parties that can quickly provide financial relief in instances when burn practitioners adhere to identified best practices.*

All cultural burning and prescribed fire programs carry the risk of fire escapes. While the vast majority of these burns are done successfully, inevitably some fires will escape and can cause damage and even human harm. Given the public benefit associated with cultural and prescribed fire

[1] We use the term beneficial fire to broadly mean prescribed fire, cultural burning, and wildfire managed for resource benefit, in line with the recommendations of the Wildland Fire Mitigation and Management Commission.

use, the public at large should cover these rare losses, rather than the burner or the injured parties. Some states, such as California, have such fund, but most don't.

Recommendation 11: *Congress should consider and clarify the extent to which the Federal Tort Claims Act provides protection to Tribes and non-federal cooperators burning on federal lands.*

The Federal Tort Claims Act (FTCA) provides a clear liability scheme for public employees engaged in prescribed fire or other work on federal lands. While the federal government has become increasingly reliant on Tribes and other non-federal cooperators to engage in this work, the application of the FTCA to such workers is unclear. This lack of clarity has reduced the willingness and ability of non-federal parties to play this important role.

Recommendation 14: *Congress should instruct the agencies to develop the necessary administrative systems to allow resource ordering for prescribed fire to be as seamless as it is for wildfire response.*

US wildfire suppression response is coordinated by the National Interagency Fire Center (NIFC) in Boise, ID. This center enables coordination, prioritization of resources, seamless communication to all fire suppression agencies, and administration and collection of resources to complete complex tasks. No such system exists for beneficial fire. NIFC could be tasked to take this on and it would enable much larger projects to get done across agencies with suppression responses available when needed. This investment could increase the size and complexity of beneficial fire projects.

Recommendation 15: *Congress should require the Bureau of Indian Affairs to acknowledge that federally recognized Tribes may develop fire programs on Tribal trust lands under approved Tribal laws, regulations and policy, or other Tribal decision-making processes.*

The BIA currently asserts regulatory authority over fire programs on Tribal trust lands, requiring approval of burn programs and plans, federal qualifications, and environmental review. The BIA has also refused to allow Tribes to compact for these programs under existing 683 authorities. This oversight is unnecessary and an infringement on tribal sovereignty. The BIA is also notoriously slow, with Tribes facing years-long delays if approvals are sought.

Recommendation 16: *Congress should acknowledge Tribal cultural burning in federal law, ensure it is not confused with prescribed fire, and grant agencies the authority to coordinate with Tribes on the conduct of Tribal cultural burning on federally administered lands.*

Cultural burning is considered to be a reserved, retained, or unceded right for many Tribes, including on lands that are currently administered by the federal government. Congress should provide authorities to these agencies to work with Tribes to facilitate cultural burning on federally administered lands.

Recommendation 26: *Expand Good Neighbor Authority to more federal entities, including the U.S. Fish & Wildlife Service and National Park Service.*

This authority has enabled significant joint projects on lands administered by the USDA but should be expanded to agencies in the Department of Interior. This would lead to more needed work getting done.

Recommendation 29: *Congress should ensure that federal agencies have the directive, capacity, and authority to enter into equitable and meaningful co-stewardship and co-management agreements for multi-jurisdictional lands, and to support Tribal self-governance in order to address wildfire risk reduction, management, and recovery, and to enable beneficial fire practices.*

Co-stewardship refers to the ability of the federal government to engage Tribes in the execution of their plans and programs, while co-management refers to the ability of the federal government to share or transfer decision making authorities to Tribes. While many federal agencies are interested in engaging in both practices, current authorities are narrow, and generally preclude or limit co-management.

Recommendation 30: *Congress should provide the U.S. Department of Agriculture stand-alone authorities to enter into co-management agreements with Tribes that would allow the Forest Service to share, defer or transfer decision-making authority with or to a Tribe or Tribes for management of Forest Service programs or activities.*

The USDA in particular has identified a specific need for co-management authorities, in order to effectively engage with Tribes on stewardship activities.

Recommendation 42: *Direct the Environmental Protection Agency, the Department of the Interior, and the U.S. Department of Agriculture to work together to expeditiously evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire. Such an evaluation includes the exceptional events pathway and making any necessary changes to enhance programmatic and procedural ease and clarity while ensuring protection of public health, in a manner consistent with the Clean Air Act.*

The recently finalized EPA PM 2.5 rule could severely limit the application of prescribed fire, cultural burning, and managed wildfire. This regulatory scheme should be modified to allow larger amounts of desirable fire to occur versus inevitable wildfires and their severe smoke.

Recommendation 57: *Congress and agencies should expand support for the further development and utilization of pre-fire response planning, such as the Potential Operational Delineations (POD's) methodology, as a science based, collaborative, and interdisciplinary framework for improving wildfire management and mitigation, integration of land management objectives with wildfire management objectives, and collaborative engagement.*

The use of POD's has allowed larger and more complex fire and restoration projects to get accomplished. They should be expanded to meet our restoration objectives.

Recommendation 84: *Increase wages and benefits for the federal wildland fire workforce.*

Recent federal compensation was changed to increase federal firefighter salaries by 50% or $20,000 whichever is lowest. This was critical since federal firefighters get paid far less that state or local firefighters. These increases need to continue to be able to hire and keep the necessary workforce to get the needed work done. This is a critical issue, just need to keep these increases.

Recommendation 89: *Invest in the creation of a workforce primarily focused on restoration and mitigation.*

Wildland Fire Use crews were created in the 1990's and they were successful in getting beneficial fire on the ground. Most of them were lost but a few have been added recently. These types of fire crews should be expanded to meet our restoration objectives. We cannot depend on firefighting crews to do all of this work. They are over taxed physically and mentally and we need an additional workforce.

Recommendation 102: *Authorize and fund the provision of housing or a housing stipend for wildland fire mitigation and management personnel.*

Next to good wages, provision of housing is also a very high priority when you talk to federal firefighters. Many rural areas in the western US have been burned by large wildfires that have destroyed already rare housing. Decades ago the USFS provided housing on their lands to fire crews and others. This should be brought back to enable the hiring of the necessary workforce to get the needed restoration work done. The USFS has millions of acres of land and there are excellent places to build new housing for fire employees. This would provide a competitive advantage to the USFS since state and local fire agencies don't provide housing in most cases. Providing housing could help offset the lower firefighting wages from the federal agencies.

Recommendation 105: *The fire environment center should provide real-time, science-based, and data-rich scientific and technical analytic services, decision support, and predictive services to inform land and fuels management, community risk reduction, and fire management and response.*

We recommend adding the public to this recommendation. A fire risk system could be produced to supply fire managers with their needed information but could also convey key information to the public such as what the National Weather Service does today regarding weather and hurricanes. The interface to the public would synthesize technical information but still provide key resources to the public that could be easily understood regarding fire danger.

Recommendation 147: *Change the system of land management agency performance metrics beyond acres treated, timber volume output, or acres burned to measure success. Success should be measured by outcomes such as the number of protected assets, values, and resources, and the degree to which forests and rangeland are returned to and maintained in a more resilient state.*

All federal and state agencies tally treatments regarding acres treated. While this information is needed, it does nothing to evaluate the effectiveness of the treatments. A new system is needed that can produce metrics and outputs that provide agencies, Congress, and the public on what actually has been accomplished from the investments provided. Many of the most important acres needing treatment are in the Wildland Urban Interface (WUI) but these are areas more challenging to work in because of higher risk. Many current projects are implemented in areas with little human infrastructure at risk which still can produce important outcomes but we need a system that enables a fair accounting of their benefits. Simple tallies of acres treated won't do this.

We appreciate that the Committee is considering the role beneficial fire plays in mitigating extreme wildfire during your hearing. We look forward to working with Committee Members and staff on future legislation.

Thank you,

Don Hankins, Scott Stephens, and Sara Clark
Project Leads
The Stewardship Project

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March 25, 2024

Sen. Joe Manchin, Chairman
Sen. John Barrasso, Ranking Member
Energy and Natural Resources Committee Office
304 Dirksen Senate Building
Washington, DC 20510

RE: Written testimony submitted following the Committee's March 12, 2024 hearing: to Examine the Findings and Recommendations of the Wildland Fire Mitigation and Management Commission

- S. 2018 Connect Our Parks Act – Requires the National Park Service to plan within 2 years to deploy cellular and broadband (100/20 Mb) in national parks.
- S. 1764 Western Wildlife Support Act – Directs federal land management agencies to expedite deployment and permitting of technology for wildfire fire detection.
- S. 2855 Close the Gap Act – Promotes deployments of communications facilities on 95% of federal lands; eliminates NEPA and NHPA for expansions of an existing wireless facility.
- S. 873 America's Outdoor Recreation Act – Requires land managers to "foster the installation" of broadband, which includes wireless, recreational areas of federal lands.

Dear Chairman Manchin, Ranking Member Barrasso, and members of the Senate Energy and Natural Resources Committee:

I am a Fire and Utility Consultant and an Honorary Firefighter with the San Diego Fire Department. It is my honor to provide written testimony, which I am today submitting for the record, to this committee regarding four specific bills over which your committee has jurisdiction, but perhaps more broadly, I'm relaying information for you to be aware of going forward as you consider bills that include telecommunications equipment as part of 1) a solution to fire; 2) a solution to emergency communication in the midst of the wilderness.

No agency within the federal government, nor any agency at the state level that I'm aware of, is keeping track of fires initiated, in whole or in part, by telecommunications equipment. I have worked with several attorneys to create fire safety language for local zoning ordinances with respect to macro towers as well as small cells (5G). Most recently I have worked with attorney W. Scott McCollough who served as the Texas Assistant Attorney General for Telecommunications & Utilities for a decade. Attorney McCollough was hired by residents of

Malibu, California to create a telecommunications ordinance that would be as fire safe as possible.

Attorney McCollough was aware that even though we have national standards for fire safety and building codes, many states exempt the telecommunications industry from these standards. Counties may adopt various fire and building codes if they wish, but they do not always choose to do so. The same can be said of municipalities. It is safe to say that for decades the telecommunications industry has been policing itself when it comes to fire safety.

Before this committee approves bills that use cell towers as solutions for fire protection, please read my testimony and understand that the solution that may have been suggested to you could, in fact, be a causal factor.

In my work with attorney Scott McCollough and in my own testimony as a Fire and Utility Consultant, I do not reference a fire that has been started, in whole or in part, by telecommunications equipment unless I have read the fire incident report and/or read and studied a state's public utility commission findings following sometimes multi-year long investigations.

I was brought in by Attorney McCollough to investigate fires in Southern California over an approximately 15-year period. I will use the information gleaned from this investigation to paint a picture for you as to what is happening on the ground, but I do not believe this information is reaching Washington DC. What I am offering you is a slice of the truth, both from fires that were proven to have been started by telecom equipment and telecom-fire coverups that have been confidentially reported to me.

I'm aware through firefighter sources as well as individuals within the telecommunications industry that multiple telecommunications equipment-initiated fires are covered up by gifts of firefighting equipment to fire departments and/or municipalities. A hook and ladder truck costing approximately $2 million buys a great deal of silence.

The focus of my testimony, however, is not grounded in the gifts carriers provide to fire departments, volunteer and municipal, to buy silence. My testimony is based on fire investigation documents which are footnoted in my testimony.

The slice of the truth that is known and proven took place and Southern California between 2007 and 2018. Four major wildfires were started because of structural or electrical engineering deficiencies, lack of maintenance and repair, and most of the offenders – both carriers and infrastructure builders – were accused by the California Public Utilities Commission of attempting to impede the fire investigations. These are all known carriers and infrastructure builders who would likely be building in the national parks and wilderness areas that are the subject of the four bills under your committee's jurisdiction. In some instances, evidence was destroyed and evidence was claimed to be "privileged" by the attorneys who represented some of the guilty parties. That is not how fire investigations work. But this is how the telecommunications industry works very, very hard to suppress the truth about the fire risks of their equipment.

Before our fire investigation for the years between 2007 and 2018 had concluded, Attorney McCollough and I learned that Malibu had burned not just once because of telecommunications equipment. It had burned twice at the hands of telecom. That second fire, the infamous Woolsey Fire, carried a price tag of over $6 billion in damages.

First a bit of education about cell towers and the risks, and then details of our findings:

**INTRODUCTION TO TELECOM FIRE RISKS**

Cell towers and related telecommunications equipment can cause wildfires. Each cell tower is an electrical device. When electrical devices fail, electrical fires can be triggered. Cell tower fires cannot be extinguished through conventional means. Anyone putting water on a cell tower fire before the electricity is cut, which can take up to 60 minutes in a metropolitan area and up to two hours in a rural area,[1] may be electrocuted. Imagine a cell tower fire in a national park or remote federal land in the midst of a high wind event and there is nothing that can be done until the utility cuts the power.

As mentioned, our investigation into the extent of telecommunication fires focused very much in Southern California because we had been hired to help protect the city of Malibu; please keep in mind our findings are applicable to cell towers everywhere. Here's what we found.

Our team working in Malibu – telecommunication's attorney W. Scott McCollough, electrical engineer Tony Simmons, P.E. and myself – linked four major fires to telecommunications equipment within a 15-year period in Southern California alone, costing well over $6 billion in damages. These fires will be evaluated within this paper but in brief they are the Guejito Fire (2007) in San Diego which merged into the explosive Witch Creek Fire, Malibu Canyon Fire (2007), Woolsey Fire in Malibu & LA County (2018) which burned for one month and took the lives of three people trying to escape, and the Silverado Fire in Irvine (2020).

Though these fires are always well reported in the media at the time, fire investigations can take years. Very often the telecommunication industry's role in the initiation of fires is proven years down the road. This understandable delay means the general public and even local leaders may have no awareness of the role telecommunications equipment plays in the initiation of these fires. The fault most often lies with telecommunications' failures in electrical engineering, structural safety, and maintenance; these faults are often understated and/or covered up.[2]

According to the Federal Communications Commission (FCC), safety belongs to the locality to regulate.[3] [4] That includes safety setbacks. Because of the risk of fire due to telecommunications equipment, placing cell towers in national parks and on federal land which is often remote and surrounded by dry forests, *will increase fire risks.* Understand that every single cell tower added

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[1] "Protecting Malibu's Future: Preventing Electrical Fires in Cell Towers by Introducing Enhanced But Generally Accepted Engineering Design Rigor and Adequate Proof of Work in the Application," Susan Foster & Tony Simmons, P. E., Updated May 8, 2022 by S. Foster. Attachment 1 Community Memo, Memorandum from W. Scott McCollough to Malibu City Council, "Response to Planning Commission Recommendation and Staff Draft Conforming Provisions," April 8, 2021.

[2] Ibid.

[3] 2014 Infrastructure Order ¶ 202.

[4] 2020 Section 6409 Dec R and NPRM ¶43.

to our national parks and federal lands increases the fire risk rather than ameliorating that risk. This is true not only in the drought-stricken West. This holds true for the entire country.

I have heard the false narrative that cell towers are needed in national parks so that an injured hiker can call for help. This is an outdated solution, and one that fails to take into consideration the fire risks associated with telecommunications equipment that could cause a fire an injured hiker would not be able to outrun. Here is the solution: the IPhone 14 and 15 series has the ability to contact emergency services in remote regions without cellular service. Emergency SOS via Satellite was launched by Apple in 2022. This service has successfully aided stranded people, allowing them to reach emergency services without a phone signal. In other words, hikers should be prepared when they go into the wilderness. This committee should not introduce additional fire risks but rather inform hikers they should hike with at least an iPhone 14. The Boy Scouts had it right: "Be prepared."

The use of what amounts to ministerial permits – with the rubberstamping of cell tower permits – should be discouraged because then electrical, structural and fire safety will be left unchecked, and the telecommunications industry will be policing telecom. We have seen the results of that with over $6 billion worth of damage in the last 15 years alone, thousands of homes lost or damaged, dozens of casualties, lives disrupted, and the environment and wildlife threatened.

S. 2855 Close the Gap Act promotes deployments of communications facilities on 95% of federal lands; eliminates NEPA and NHPA for expansions of an existing wireless facility.

Senators, you must have environmental review which is exactly what NEPA – the National Environmental Policy Act – is for. You also want to abide by NHPA – the National Historic Preservation Act. To abandon the former is to increase your fire risk. To abandon the latter is to risk turning the Grand Canyon into a postcard that resembles a pincushion. If you abandon these guardrails, you indeed facilitate telecom making their own rules. And here is what we found in our investigation of Southern California telecom-initiated wildfires.

It is particularly germane to note that in the Malibu Canyon Fire, the California Public Utilities Commission (CPUC) accused all negligent parties of impeding the fire investigation. These parties included: Southern California Edison (SCE), AT&T, Verizon, Sprint (now T-Mobile) and NextG, now owned by Crown Castle. Because AT&T, Verizon and Sprint admitted to their participation in the initiation of the fire without having to litigate, the CPUC and the Safety and Enforcement Division (SED) were more critical of and punitive with SCE and NextG.[5] All of these parties conduct business in Los Angeles County and provide telecommunications services and electrical services (SCE) to Los Angeles County.

In addition to the Malibu Canyon Fire, the $6 billion Woolsey Fire was the fault of Southern California Edison's own telecommunications company. Edison impeded the fire investigation.

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[5] DECISION CONDITIONALLY APPROVING THE SOUTHERN CALIFORNIA EDISON COMPANY SETTLEMENT AGREEMENT REGARDING THE MALIBU CANYON FIRE, BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, Decision 13-09-028 September 19, 2013.

The failure of multiple perpetrators of multiple fires to candidly and honestly facilitate the fire investigations of the fires their companies recklessly initiated through structural and electrical engineering failures, and/or failure to maintain equipment in a timely manner, should provide a cautionary tale to this committee that is looking to cell towers to ameliorate an increasing fire risk across this country.

Any and all entities that have established a reputation with the state PUC for failing to cooperate in a fire investigation should not be left to supervise themselves.

For context, let us look at the Malibu Canyon Fire and the Woolsey Fire, and understand why they occurred. To suggest that environmental review is no longer relevant is astonishing with the challenges faced by changing climate, rising temperatures, a drought with no end in sight, and increased fire risk with every single Wireless Telecommunications Facility permitted on federal lands.

Understanding how these telecommunications fires start may help legislators appreciate that to turn away from cell tower engineering design requirements and scrutiny by dismissing environmental review altogether invites unmitigated fire risks on pristine and sacred land the federal government is tasked with preserving. It is crucial to understand that environmental review includes fire and climate challenges.

First, let us take the Malibu Canyon Fire. The fire occurred in October 2007 when three utility poles fell to the ground during a Santa Ana windstorm. The California Public Utilities Commission (CPUC) approved settlement agreements totaling $51.5 million with Southern California Edison (SCE) and NextG Networks (now owned by Crown Castle) as both punishment and enhancement of public safety moving forward. Again, AT&T, Verizon and Sprint (now T-Mobile) admitted to their part in the fire and thus were fined though not as significantly as SCE and NextG Networks.[6]

The Woolsey Fire started on November 8, 2018. The Ventura County Fire Department received notice of a fire, soon-to-be known as the Woolsey Fire, at the Santa Susana Field Laboratory in the Simi Hills, just south of Simi Valley. The fire ignited at two points simultaneously and these two locations were designated by CalFire as Sites 1 and 2.

To quote directly from INVESTIGATION REPORT OF THE WOOLSEY FIRE: "The messenger wire extended about one quarter mile east to Site 1 between poles number 4650857E and 4557126E; these two poles supported several other communications conductors in addition to an ECS communications conductor from Site 2. Trees in this area had been growing into the communication conductors between these poles and pressing them together. This overgrowth caused the energized messenger wire and its lashing wire to make contact with another messenger wire and its lashing in the same span. The contact between the two sets of wires caused an arc, which partially melted the lashing wires and caused hot fragments of lashing wire

[6] CPUC ENHANCES SAFETY, ISSUES $51.5 MILLION IN PENALTIES AND REMEDIATION AGAINST SCE AND NEXTG FOR MALIBU CANYON FIRE, Docket #: I.09-01-018, Press Release, Sept. 19, 2013.

to fall into the brush below. These hot metal fragments ignited the brush and started a second fire there at Site 1."[7]

These two brush fires converged as they burned south and became the Woolsey Fire. The Woolsey Fire burned 96,949 acres of land, destroyed 1,643 structures, caused three fatalities, and prompted the evacuation of more than 295,000 people in the area. The total damage to property was estimated to be $6 billion.[8]

The telecommunications role in this fire is as follows: The negligence for the Woolsey Fire was not placed at the feet of one of the telecommunications giants but rather Southern California Edison's own telecommunications backhaul line which was SCE's responsibility to maintain.

The Safety and Enforcement Division (SED) found that on a May 10, 2018, telecommunications inspection of their equipment, an SCE employee failed to assign a priority level to the condition associated with a broken Edison messenger wire and a broken Edison lashing wire. This condition should have been marked as urgent and it was not. The failure to repair telecommunications equipment went unrecognized for six months. Southern California Edison did not contest the SED's findings. In other words, telecommunications equipment belonging to Southern California Edison and a failure to maintain that equipment properly played a significant role in the initiation of the Woolsey Fire.[9]

Just as the CPUC accused all parties in the Malibu Canyon Fire of failing to cooperate fully in the fire investigation, the same failure to cooperate in the Woolsey Fire investigation conducted by the Safety and Enforcement Division (SED) was well-documented.

Wildfires by their very nature are extraordinarily destructive, which makes fire investigation observations at the earliest possible time critical to understanding the events that occurred and finding the cause or causes. Southern California Edison failed to provide a comprehensive set of data and evidence that Safety and Enforcement Division (SED) requested. Edison impeded and prolonged SED's investigation, according to the Fire Investigation Report.[10] Edison's actions prevented SED from reviewing all available information from the point at which the fire had least disturbed the electric facilities.

According to the Report: "The actions of Edison's first responders cannot preemptively be under the direction of Edison counsel. Any notes, reports, or text messages that SED requested would not be generated under the direction of Edison counsel and accordingly should not be subject to attorney-client or work product privilege. For the reasons stated above, SED's investigation determined that Edison is in violation of PU Code § 316 and GO 95, Rule 19 for failing to provide: the list of evidence and records used for Edison's own investigation, as well as

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[7] INVESTIGATION REPORT OF THE WOOLSEY FIRE, SAFETY AND ENFORCEMENT DIVISION ELECTRIC SAFETY AND RELIABILITY BRANCH LOS ANGELES.

[8] Ibid.

[9] [PROPOSED] ADMINISTRATIVE CONSENT ORDER AND AGREEMENT, Issued pursuant to Commission Resolution M-4846 (adopting Commission Enforcement Policy on November 5, 2020), October 21, 2021.

[10] INVESTIGATION REPORT OF THE WOOLSEY FIRE, SAFETY AND ENFORCEMENT DIVISION ELECTRIC SAFETY AND RELIABILITY BRANCH LOS ANGELES.

photographs, notes, reports, and text messages generated by first responders. In the spirit of full and transparent cooperation with the Commission and its staff, it is imperative that Edison respond to SED data requests with the most comprehensive information available. Without such comprehensive information, SED cannot conduct a thorough investigation, determine the root cause of the incident, expeditiously remedy any issues and prevent future similar incidents from occurring."[11]

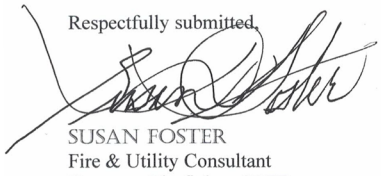
It was the reckless disregard for safety by overloading utility poles because it is profitable to do so that triggered the Malibu Canyon Fire. It was a failure by SCE to maintain their telecommunications equipment that contributed to the initiation of the Woolsey Fire, the most destructive fire in California's history up until that point.

To compound SCE's reckless disregard for safety [Malibu Canyon Fire] and negligence of its existing equipment [Woolsey Fire], SCE further punctuated their culpability by intentionally impeding both fire investigations. These facts should immediately shift the calculus for leaders everywhere.

The above facts should compel lawmakers to seriously call into question whether we should be trusting telecommunications infrastructure builders and the carriers with policing themselves by rubberstamping applications, which is essentially what a failure to adhere to NEPA and NHPA would be. Furthermore, the above facts should compel legislators to halt the rollout of 4G/5G on increasingly dry and fire prone federal lands.

If I can provide you with additional information or answer any questions, I stand ready to assist in any way possible.

Respectfully submitted,



SUSAN FOSTER
Fire & Utility Consultant
Honorary Firefighter SDFD

[11] Ibid.

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March 25, 2024

The Honorable Joe Manchin
Chair, Senate Committee on Energy and Natural Resources
306 Hart Senate Office Building
Washington, D.C. 20510

**Re: Hearing to Examine the Wildland Fire Mitigation and Management Commission**

Ayukĩ (Greetings) Honorable Joe Manchin,

We write to you on behalf of the Karuk Tribe with respect to your Hearing to Examine the Findings and Recommendations of the Wildland Fire Mitigation and Management Commission. We were glad to see this topic highlighted given its critical importance to the U.S. and to Karuk people.

Karuk People have lived in the Klamath-Siskiyou Mountains in the mid-Klamath River region of northern California since Time Immemorial. We continue to live here and practice our culture today. Thriving with an economy supported by rich natural endowments and a strong culture-based commitment to land stewardship, Karuk Indigenous management, including fire use, has shaped the region's ecological conditions for millennia and continues to do so.

We just recently released our *Good Fire II* Report, where we call for transformational change at both the federal and state level to address barriers and improve support for cultural fire practitioners and community-based prescribed burners to address the wildfire crisis at the pace and scale that is needed. This report discusses and provides further detail on several of the Wildland Fire Mitigation and Management Commission's recommendations, outlined below.

Please consider the attached *Good Fire II* report as part of your examination into how to address the wildfire crisis. We specifically refer you to Chapters 2 (Tribal Land and Resource Access), 3 (Regenerative Economic Systems), 4 (Tribal-Agency Relationships), 5 (Indigenous-led Fire Regimes), and 6 (Workforce Development); and *Good Fire II* Recommendations 1, 2a, 2b, 7, 9, 10, 11, 18, 19, 22, 22a, 28, 31, 32, 33, 34, 37, 39, 40, 42, 43, 44, 52, 56, 60, 68, 74, and 82, which specifically build on Wildland Fire Commission Recommendations. It is also available here: https://karuktribeclimatechangeprojects.com/good-fire/

For any questions or further discussion, please contact Colleen Rossier at crossier@karuk.us or (530) 925-6251.

Yôotva (Thank you),

DocuSigned by:
Russell Attebery
85DCD5B4D7C4BA...

Russell Attebery
Chairman
Karuk Tribal Council

# GOOD FIRE II

Current Barriers to the Expansion of Cultural Burning and Prescribed Fire Use in the United States and Recommended Solutions

## EXECUTIVE SUMMARY

A significant revitalization of the relationships between fire, communities, and landscapes is needed to address the wildfire crisis. Many Indigenous peoples still honor and maintain these relationships—their efforts must be fully enabled and supported, while many others must fundamentally change the way they talk and think about fire, enabling a paradigm shift in how fire restoration activities are regulated, planned, and implemented. To move forward, Indigenous knowledge, practice, and belief systems must be respected and revered, and the sovereignty of Tribal governments and cultural fire practitioners must be acknowledged and access enabled. Additionally, Tribes and Indigenous people should be provided with resources to burn as they know how, within their lands of territorial affiliation.

In 2021, the Karuk Tribe commissioned the first *Good Fire* report, which summarized the legal and policy underpinnings of barriers to expanding the scope of cultural burning and prescribed fire use in California, and made recommendations to address them. Since its release, *Good Fire* has been widely cited by academics, lawmakers, and private and public entities alike as a key resource informing efforts across the state to help increase the use of good fire.

*Good Fire II* takes the recommendations to a larger scale, calling for transformational change at both the state and federal levels, and providing a roadmap to revitalizing the relationship between humans and fire and the systems used to steward it. The report continues to prioritize reforms that support cultural fire practitioners and community-based prescribed burners, based on the understanding that intimate knowledge of place is required for effective stewardship.

*Good Fire II* also follows the release of the Biden Wildland Fire Mitigation and Management Commission's final report, which includes recommendations to more effectively prevent, manage, and recover from wildfires. *Good Fire II* is intended to be used as a tool for implementing the Commission recommendations in a manner that protects and respects Tribal sovereignty and prioritizes Tribal leadership at all levels of stewardship and fire management.

This document serves as a quick reference guide to *Good Fire II*, highlighting the key themes, barriers, and recommendations included in the full report. Each recommendation is labeled to indicate whether it applies at the state or federal level as follows: S F. Recommendations that match those in the Commission report are designated as follows: .

To access Good Fire II online, please visit:
https://karuktribeclimatechangeprojects.com/good-fire/
To contact the authors, please email goodfire@karuk.us.



## CHAPTER 1: CULTURAL BURNING AS A TRIBAL RIGHT

Cultural burning is separate and distinct from prescribed fire. While both forms of beneficial fire are essential to restoring resiliency to the landscape, cultural burning has history, motivation, and meaning which includes but also goes beyond wildfire protection benefits to include highly sophisticated ecological and cultural benefits. By recognizing the inherent rights and sovereign authority of Tribes and cultural fire practitioners to engage in the use of cultural burning across their lands of territorial affiliation, landscapes can be returned to a condition in which ecological cycles and principles as well as Indigenous knowledge, practice, and belief systems are recognized and respected.

### BARRIER: Entities mistakenly treat cultural burning as prescribed fire.

**Recommendation 1:** Explicitly acknowledge cultural fire and cultural fire practitioners in federal statute, and clarify that cultural burning falls within the sovereign authority of Tribes. S F [1]

### BARRIER: State and federal agencies assert they must "permit" or "allow" cultural burning on lands of territorial affiliation.

**Recommendation 2:** Recognize Tribes as separate sovereigns with retained rights to cultural burning. S F

**Recommendation 2a:** Affirm that federally recognized Tribes may develop fire programs on trust lands without the need for BIA oversight or approval. F [2]

**Recommendation 2b:** Authorize the federal government to work with Tribes to create enabling conditions for Tribal cultural burning on federally administered lands. F [3]

**Recommendation 3:** Identify potential barriers to the exercise of reserved/retained rights. S F

1 **Commission Recommendation 16:** Congress should acknowledge Tribal cultural burning in federal law, [and] ensure it is not confused with prescribed fire…

2 **Commission Recommendation 15:** Congress should require the BIA to acknowledge that federally recognized Tribes may develop fire programs on Tribal trust lands under approved Tribal laws, regulations and policy, or other Tribal decisionmaking processes.

3 **Commission Recommendation 16:** Congress should…grant agencies the authority to coordinate with Tribes on the conduct of Tribal cultural burning on federally administered lands.

### BARRIER: The expertise of cultural fire practitioners is not formally recognized.

**Recommendation 5:** Recognize cultural fire practitioner certification programs. S F

**Recommendation 6:** Integrate non-Indigenous and Indigenous certification systems. S F

**Recommendation 7:** Fund Tribally led mentorship programs. F [4]

### BARRIER: The enabling conditions necessary for landscape-ccale, multi-jurisdictional stewardship are not yet in place.

**Recommendation 8:** Revise NIFRMA to enable the development of Tribal IRMPs at the scale of a Tribe's lands of territorial affiliation. F

**Recommendation 9:** Meaningfully involve Tribes in existing land management planning efforts undertaken by federal agencies. F [5]

**Recommendation 10:** Modify ITARA to apply to all trust assets. F

**Recommendation 10a:** Make permanent the Indian Trust Asset Management Demonstration Project. F [6]

## CHAPTER 2: TRIBAL LAND AND RESOURCE ACCESS

Without assured access and rights to steward, Tribes cannot complete the cultural burning and other Indigenous stewardship activities needed to restore forest resilience and health without risking citation, jail time, or worse. Policy changes must apply across all lands of territorial affiliation, including those currently administered in part by federal and state agencies.

### BARRIER: Tribes lack assured access to engage in Indigenous stewardship.

**Recommendation 11:** Ensure that federal and state agencies have the authority, directive, and capacity to enter into more equitable and meaningful co-management agreements. S F [7]

**Recommendation 12:** Make permanent the TFPA pilot program enacted in the 2018 Farm Bill. F

**Recommendation 13:** Enable federal agencies to enter into programmatic 638 compacts with Tribes across all lands of territorial affiliation. F

**Recommendation 14:** Clarify that prescribed fire and other stewardship activities are not "inherent federal functions" under ISDEAA and can be delegated to Tribes via 638 compacts. F

**Recommendation 15:** Expand 638 contracting and compacting to apply across the whole of government. F

**Recommendation 16:** Amend the TFPA and GNA to prevent federal agencies from overly delaying their use. F

**Recommendation 17:** Amend the GNA to allow Tribes to retain timber receipts for their work on federally administered lands and revise the restrictions on use of retained income. F

**Recommendation 18:** Enable Tribes and non-governmental organizations to more easily complete needed beneficial fire and other stewardship work on federal and state administered lands through contractual mechanisms. S F [8]

4 **Part of Commission Recommendation 88:** Congress should provide funding and authorization for expanded recruitment strategies.

5 **Commission Recommendation 28:** Congress should reinforce federal agency requirements for coordination with Tribes when engaging in land management planning.

6 **Commission Recommendation 31:** Congress should make permanent the Indian Trust Asset Management Demonstration Project by eliminating the 10-year sunset, allowing continued participation in the Indian Trust Asset Reform Act.

7 **Commission Recommendation 29:** Congress should ensure that federal agencies have the directive, capacity, and authority to enter into equitable and meaningful co-stewardship and co-management agreements for multijurisdictional lands, and to support Tribal self-governance in order to address wildfire risk reduction, management, and recovery, and to enable beneficial fire practices; **Commission Recommendation 30**: Congress should provide the U.S. Department of Agriculture stand-alone authorities to enter into co-management agreements with Tribes that would allow the Forest Service to share, defer or transfer decision-making authority with or to a Tribe or Tribes for management of Forest Service programs or activities.

8 Part of **Commission Recommendation 90:** Improve the contracts, grants and agreements process and expand investments in the non-federal workforce.

## CHAPTER 3: BUILDING REGENERATIVE TRIBAL ECONOMIC SYSTEMS

While some Tribes have access to significant revenue from gaming and other economic development enterprises, most Tribes struggle to fund basic governmental services and activities due to the legacy of land dispossession, genocide, and assimilation policies. As a result of the lack of stable funding, it is difficult to build the long-term, sustainable systems and workforces necessary to restore landscape function, right systemic injustices, and fully realize Indigenous stewardship goals. Regenerative economic systems can help to address these barriers.

### BARRIER: Existing funding sources do not allow Tribes to build regenerative economic systems.

**Recommendation 19:** Provide federal and state funding to establish and build regenerative economic systems, such as place-based, Tribal endowments for the purpose of Indigenous stewardship. S F [9]

**Recommendation 20:** Create tax or other incentives for philanthropic and private contributions to place-based Tribal endowments. S F

**Recommendation 21:** Ensure that the existence of place-based, Tribal endowments does not adversely impact the availability of other funding for Tribes. S F

### BARRIER: Existing systems are underfunded and cumbersome to administer.

**Recommendation 22:** Provide funding to Tribes to support their baseline capacity and to expand training opportunities, beneficial fire programs, and Indigenous stewardship work. S F [10]

**Recommendation 22a:** Enable Tribes to request adequate federal funding for 638 contracts and compacts. F [11]

**Recommendation 23:** Evaluate existing Tribal funding programs to eliminate unnecessary use restrictions or administrative requirements. S F

**Recommendation 23a:** Increase funding for the BIA's Fish, Wildlife, and Parks program, which can be used by Tribes to complete work on lands administered by other agencies. F

**Recommendation 23b:** Make the Reserved Treaty Rights Lands Program a recurring program. F

**Recommendation 23c:** Allow IFLA accounts to be used to implement stewardship activities across jurisdictions. F

**Recommendation 23d:** Allow Tribes to retain timber receipts when using the Good Neighbor Authority. F

**Recommendation 23e:** Relax restrictions on Tribes that limit their ability to use natural resources removed from federally or state administered lands as part of Indigenous stewardship activities for commercial purposes. S F

**Recommendation 23f:** Ensure that program income generated by Tribes is added to federal awards. F

### BARRIER: Tribes are asked to provide work to agencies without pay.

**Recommendation 24:** Provide direct funding to Tribes to ensure adequate consultation and coordination occurs. S F [12]

**Recommendation 25:** Ensure that agencies pay Tribes and Indigenous peoples when they assist with agency planning and implementation. S F

### BARRIER: Non-governmental organizations also face funding challenges.

**Recommendation 26:** Provide significant funding to non-profit organizations and landowners to implement prescribed fire and increase local capacity. S F

**Recommendation 27:** Direct state funding through agencies prepared to handle streamlined CEQA compliance. S

9 **Commission Recommendation 127:** Congress should provide direct funding to Tribes for capacity for consultation, coordination, co-stewardship, and co-management, and should establish flexible, reliable, and regenerative funding mechanisms and processes.

10 **Commission Recommendation 128:** To ensure Tribes have adequate base funding and staffing to accomplish management goals on Tribal lands, Congress should consider the results of the Indian Forest Management Assessment and National Congress of American Indians Resolutions when creating new laws, regulations, or other authorities.

11 Part of **Commission Recommendation 92:** Tribes should be supported to expand mitigation, response, and restoration workforces.

12 **Commission Recommendation 127:** Congress should provide direct funding to Tribes for capacity for consultation, coordination, co-stewardship, and co-management.

## CHAPTER 4: IMPROVING TRIBAL-AGENCY RELATIONSHIPS

Navigating state and federal law to implement beneficial fire is a complex undertaking. These issues are compounded for Tribes and cultural fire practitioners, given the historical and legal complexities. To avoid delays, increased costs, foregone opportunities, and a lack of appropriate respect, agencies must become better at working with Tribes.

### BARRIER: Agency staff are poorly trained in working with Tribes and cultural fire practitioners.

**Recommendation 28:** Prioritize hiring staff who are trained and competent in collaborating with Tribes and invest in staff training. S F [13]

**Recommendation 29:** Create systems of knowledge-sharing that allow for the preservation of knowledge within and across agencies. S F

### BARRIER: Obtaining Indigenous Knowledge without sharing decisionmaking can amount to appropriation.

**Recommendation 30:** Ensure that Indigenous Knowledge is used only in the context of shared decisionmaking. S F

**Recommendation 31:** Ensure that Indigenous Knowledge is adequately protected from disclosure. S F [14]

### BARRIER: Increased use of remote sensing technology threatens Indigenous fire use.

**Recommendation 32:** Require entities involved in the use of remote sensing technology to enter into agreements with Tribes to protect the confidentiality of ceremonial and other fire use, and prevent unnecessary deployment of suppression resources. S F [15]

## CHAPTER 5: INDIGENOUS-LED FIRE REGIME MANAGEMENT

To address the wildfire crisis, increased beneficial fire use must come hand-in-hand with a fundamental shift away from fire exclusion and toward socio-ecological resilience. Critical to this shift will be the adoption of a holistic approach to fire management that considers long-term community health and ecological function objectives alongside short-term public safety concerns. Such an approach is inherent in Indigenous fire management, which is one of the reasons why Indigenous leadership to restore our human relationship with fire is vital in addressing the wildfire crisis.

### BARRIER: Fire management is largely centered on suppression activities by state and federal agencies.

**Recommendation 33:** Revise the Weeks Act to support equitable, cooperative fire management involving Tribes, states, and the federal government. F [16]

**Recommendation 34:** Acknowledge Tribal authority to enter into fire management compacts. F [17]

**Recommendation 35:** To restore fire regimes and thereby manage wildfire risk, provide fire managers with the direction and authority to complete the fire return interval under safer conditions following the initial suppression of a wildfire ignition. S F

13 **Commission Recommendation 96:** Ensure that fire mitigation and management personnel are trained in and respectful of Tribal sovereignty and cultural practices.

14 **Commission Recommendation 115:** Congress should consider the Forest Service Culture and Heritage Cooperation Authority as a baseline for expanded Tribal data sovereignty and FOIA exemptions for Indigenous Knowledge.

15 **Commission Recommendation 119:** Upon the request of Tribes, entities gathering data and providing dispatch information regarding fire ignitions should have the authority to enter into agreements with such Tribes to protect the privacy and confidentiality of ceremonial and other fire use.

16 **Commission Recommendation 49:** Revise the Weeks Act to include Tribes in the management and restoration of fire on equal footing to states.

17 **Commission Recommendation 48:** Congress should enhance Tribal participation in fire management compacts with states and foreign nations.

## CHAPTER 6: WORKFORCE DEVELOPMENT

A well-trained, funded, and appropriately sized workforce is necessary to implement the recommendations contained in *Good Fire II*. Developing this workforce will require not only investments in recruiting and training, but also significant shifts in agency culture and priorities. The existing systems built to support today's suppression-focused workforce are incompatible with holistic fire management.

### BARRIER: Tribes and cultural fire practitioners lack resources to build an expanded workforce.

**Recommendation 37:** Support the transfer of federally administered lands and facilities to Tribes for the development of workforce housing. F [18]

**Recommendation 38:** Ensure that income generated by workforce housing can be reinvested by Tribes for the perpetuation of Tribal programs. F

**Recommendation 39:** Make available resources specifically dedicated to training and supporting new cultural fire practitioners. S F [19]

**Recommendation 40:** Ensure that cost-of-living adjustments apply to employees operating under 638 compacts or contracts. F [20]

**Recommendation 41:** Support a year-round Tribal workforce that can complete both fire mitigation and management activities. S F

**Recommendation 42:** Allow federal employees to continue paying into federal retirement accounts when transferring to Tribal jobs under the Intergovernmental Personnel Act. F [21]

### BARRIER: Fire management agencies deprioritize prescribed fire and other stewardship activities.

**Recommendation 43:** Support the creation of new beneficial fire training centers. S F [22]

**Recommendation 44:** Improve prescribed fire training opportunities. S F [23]

**Recommendation 45:** Create dedicated prescribed fire and fuels reduction crews. S F

**Recommendation 46:** Invest in regional prescribed burn "modules" to facilitate burns. S F

**Recommendation 47:** Improve outreach and education opportunities to train the next generation of forestry professionals. S F

**Recommendation 48:** Develop integrated prescribed fire workforce recruitment, retention, training, and deployment systems. S F

**Recommendation 49:** Increase incentives for agency personnel to engage in prescribed burn activities. S F

**Recommendation 50:** Focus recruitment and retention strategies on people with career goals in fire and natural resource management, rather than solely suppression. S F

**Recommendation 51:** Address the disparity in pay, benefits, and housing availability that impact federal and Tribal workforce retention. F

**Recommendation 52:** Address the mental health challenges facing the wildland fire workforce. S F [24]

### BARRIER: The Morrill Act created injustices that continue to be perpetuated.

**Recommendation 53:** Develop mechanisms to require or incentivize land grant universities to reinvest a portion of their endowments into Tribal communities. F

18 **Commission Recommendation 103:** Enable the federal government to transfer appropriate lands and facilities to Tribes for development of workforce housing.

19 **Commission Recommendation 92:** Tribes should be supported to expand mitigation, response, and restoration workforces.

20 Part of **Commission Recommendation 92:** Tribes should be supported to expand mitigation, response, and restoration workforces.

21 **Commission Recommendation 86:** Address "break in service" rules and retirement benefit portability.

22 **Commission Recommendation 95:** Create and fund more training opportunities for the mitigation and management workforce.

23 **Commission Recommendation 95:** Create and fund more training opportunities for the mitigation and management workforce.

24 **Commission Recommendation 97:** Invest in a comprehensive approach that addresses mental and physical health.

## CHAPTER 7: AIR QUALITY

The current air quality regulatory framework presents a potential barrier to all beneficial fire use. Rather than viewing beneficial fire as a potential contributor to air pollution, state and federal policies should be reoriented to viewing beneficial fire as a necessary component of the suite of tools necessary to mitigate and address the smoke impacts of the wildfire crisis.

### BARRIER: The Clean Air Act and related state regulations fail to acknowledge cultural burning as "natural" or "background" Conditions, subject to Tribal rights.

**Recommendation 54:** Revise the Exceptional Events Rule to recognize cultural burning as part of natural, baseline conditions and prohibit states from regulating its use. F

**Recommendation 55:** Enact state law that acknowledges Tribal sovereignty with respect to cultural burning.[25] S

### BARRIER: Air quality regulators limit the use of prescribed fire.

**Recommendation 56:** Revise the Exceptional Events Rule to encourage greater prescribed fire use and enhance programmatic and procedural ease. F [26]

**Recommendation 57:** Amend the federal Clean Air Act to exclude prescribed fire emissions. F

**Recommendation 58:** Broaden the categories of prescribed fire considered "natural" under the Regional Haze Rule. F

**Recommendation 59:** Increase the frequency with which air districts permit prescribed fire. S

**Recommendation 60:** Develop and fund smoke mitigation programs. S F [27]

### BARRIER: Air districts lack sufficient resources and expertise to effectively process permit applications.

**Recommendation 61:** Revise California's Smoke Management Guidelines to remove individual discretion to deny permits where an applicant meets objective requirements. S

**Recommendation 62:** Encourage air districts to allow greater permits flexibility. S

**Recommendation 63:** Provide air districts with more financial or technical resources to assist in permit review. S

**Recommendation 64:** Require air districts to issue permits when applicants demonstrate that the proposed burn will not cause harmful smoke impacts. S

**Recommendation 65:** Determine how to support the preparation of needed Exceptional Events determinations for prescribed fire projects. S F

25 SB 310 (2024) would achieve this recommendation.

26 **Commission Recommendation 42** directs "EPA, DOI and USDA to work together to expeditiously evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire. Such an evaluation includes the exceptional events pathway and making any necessary changes to enhance programmatic and procedural ease and clarity while ensuring protection of public health, in a manner consistent with the Clean Air Act. Further, Congress should provide resources to ensure federal, state and local authorities can expand their capacity to document and exclude wildfire and beneficial fire smoke from regulatory significance."

27 **Commission Recommendation 43:** Invest in existing and new community and individual preparedness efforts, infrastructure development, public communication and engagement opportunities, and mitigation programs at the federal, state, local, Tribal, and territorial level to reduce smoke impacts to human health.

## CHAPTER 8: LIABILITY

Potential liability for damages or bodily harm caused by beneficial fire, particularly by any escape, is often cited as a barrier to further expansion of the practice. Liability concerns relating to the health and agricultural impacts of smoke may be a particular barrier to conducting prescribed fire due to the difficulty of proving or disproving causation.

### BARRIER: Liability concerns continue to inhibit burning.

**Recommendation 66:** Adopt a gross negligence standard in California for third-party damages. S

**Recommendation 67:** Alternately, adopt an immunity statute. S

**Recommendation 68:** Clarify the extent to which the Federal Tort Claims Act provides protection to Tribes and non-federal cooperators burning on federal lands. F [28]

**Recommendation 69:** Increase education among agency staff related to potential liability issues. S F

**Recommendation 70:** Initiate a broader review of the framework for fire-related liability. S F

**Recommendation 71:** Ensure that a gross liability standard applies to suppression activities by federal agencies. F

**Recommendation 72:** Ensure that cultural fire practitioners can access the gross negligence standard for suppression costs and the Prescribed Fire Claims Fund Pilot. S

### BARRIER: Insurance products are unavailable, expensive, or inadequate.

**Recommendation 73:** Monitor, fund, and permanently reauthorize the California Prescribed Fire Claims Fund Pilot. S

**Recommendation 74:** Bring federal dollars to support beneficial fire practitioners and third parties inadvertently harmed by rare escapes. F [29]

28 **Commission Recommendation 11:** Congress should consider and clarify the extent to which the Federal Tort Claims Act provides protection to Tribes and non-federal cooperators burning on federal lands.

29 **Commission Recommendation 10:** Congress should advance legislation to support a compensation or claims fund for burn damages to third parties that can quickly provide financial relief in instances when…

## Barriers and Recommendations Primarily Relevant to Prescribed Fire Practitioners

### CHAPTER 9: CAL FIRE

While CAL FIRE has taken some action In recent years to reduce cumbersome or confusing policies that have inhibited beneficial fire use, improving transparency throughout the permitting process would further benefit prescribed fire practitioners.

#### BARRIER: CAL Fire sometimes refuses to issue or overly conditions permits.

**Recommendation 75:** Publish clear criteria for burn permit evaluation and educate agency staff regarding these requirements. S

**Recommendation 76:** Amend Sections 4491–4494 of the California Public Resources Code to make it easier for burners to obtain permits for broadcast burning. S

**Recommendation 77:** Amend the California Public Resources Code to allow CAL FIRE notification in lieu of permits for some types of prescribed burns. S

### CHAPTER 10: ENVIRONMENTAL REVIEW

For certain burns, completion of environmental review at both the federal and state levels can create significant impediments. Environmental compliance processes are well intended and often serve important disclosure and mitigation purposes, yet also result in unintended consequences, including project delays, resource requirements, and litigation risk. Environmental review should not apply to cultural burns under any circumstance, unless a Tribe agrees to receive significant federal or state funding for the burn.

#### BARRIER: Environmental reviews fail to acknowledge fire as a natural process.

**Recommendation 78:** Fire use consistent with historic eco-cultural fire regimes should be considered a part of baseline environmental conditions, and therefore not subject to NEPA or CEQA review. S F

**Recommendation 79:** Train agency staff and consultants conducting environmental review on the historical presence of fire in ecosystems. S F

**Recommendation 80:** Ensure that the risk of uncharacteristically intense wildfires is included in the discussion of the no action or no project alternative. S F

#### BARRIER: Environmental review is slow and costly.

**Recommendation 81:** Provide agencies additional leeway to rely on equivalent state and/or federal analyses already completed. S F

**Recommendation 82:** Explore mechanisms to expedite and improve internal processes. S F [30]

**Recommendation 83:** Modify the examples contained within the CEQA guidelines to better facilitate the applications of such exemptions to prescribed fire. S

**Recommendation 84:** Enable Tribal authority over all necessary archaeological and Tribal cultural resource analysis for prescribed fires. S F

**Recommendation 85:** Fund regional programmatic EIRs for prescribed fire use on private lands. S

30 **Commission Recommendation 33:** Explore mechanisms to make planning more effective and efficient, such as improved information gathering, training, staffing, collaboration, and programmatic analyses for restoration and hazardous fuels reduction activities.



# GOOD FIRE II

Current Barriers to the Expansion of Cultural Burning and Prescribed Fire Use in the United States and Recommended Solutions

*BY: SARA A. CLARK, BILL TRIPP, DON HANKINS, COLLEEN E. ROSSIER, ABIGAIL VARNEY, AND ISOBEL NAIRN*
*FOR THE KARUK TRIBE*

# GOOD FIRE II

## Current Barriers to the Expansion of Cultural Burning and Prescribed Fire Use in the United States and Recommended Solutions

*By: Sara A. Clark, Bill Tripp, Don Hankins, Colleen E. Rossier, Abigail Varney, and Isobel Nairn for The Karuk Tribe*

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Bill has been a student of fire since burning with his great grandmother starting at 4 years old. He developed an intricate understanding of fire before even learning to read, and was burning by himself by the time he was eight, tending to hazel bushes, and keeping the ground under black oak trees clear. Throughout his career, Bill has integrated Indigenous and Western science into collaborative land management and policy frameworks with an eye towards ecocultural revitalization. Bill believes that viewing land management through the lens of socioecological resilience first, is the key to learning to live with wildland fire in a changing climate.

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## INTRODUCTION

Humans once experienced an intimate relationship with fire. In some parts of the world—such as within Karuk Tribal Lands—this connection remains unbroken. In North America, widespread Indigenous fire use shaped forests and grasslands, leading to greater biological diversity and healthy watersheds while also mitigating impacts from wildfire and climate variability. While the relationship still exists, such widespread traditional use of fire has largely been interrupted across much of the North American landscape as government agencies attempt to suppress nearly all wildfires and strictly regulate beneficial fire use. This consequence of colonization has resulted in a wildfire crisis that can only be solved by revitalizing this severed relationship with fire—a relationship that many Indigenous communities still maintain—and fundamentally reimagining the systems used to steward it.

As the wildfire crisis becomes increasingly severe, non-Indigenous communities are realizing the importance of reintroducing good fire as well. However, the state and federal agencies built over the last century to suppress and control fire lack necessary incentives and systems to fundamentally change the status quo. The significant financial resources that state and federal governments are devoting to the wildfire crisis (over 3.5 billion dollars in 2022 alone) are mostly funneled back into agencies designed and deployed to suppress fires, often deferring (and compounding) rather than eliminating community risk. In many regions, over a century of fire suppression propaganda has convinced community members to fear fire in all its forms. Meanwhile, the burgeoning efforts to expand the use of good fire have not yet fully addressed the underlying bureaucratic barriers that hold back Tribes and community-based organizations from putting more good fire on the ground.

**Widespread restoration of relationships between fire, communities, and landscapes is needed to address the wildfire crisis. Many Indigenous peoples still honor and maintain these relationships—their efforts must be fully enabled and supported. On the other hand, non-Indigenous peoples must fundamentally change the way they talk and think about fire, enabling a paradigm shift in**

**how fire restoration activities are regulated, planned, and implemented.** Many individuals and agencies have begun making progress on these complex issues, but change is not happening fast enough to meaningfully increase the use of good fire to address the scale of the wildfire crisis.

The wildfire crisis is the result of many factors: criminalization of Indigenous fire practices, decades-long fire suppression policies, forest management policies aimed at timber production rather than ecological health, and climate change. But wildfire risk alone is not the only harm. Evidence increasingly suggests that the fire exclusion paradigm, together with the separation of Indigenous Knowledge, practice and belief systems (IKPBS) from forest management, has adversely affected ecosystems and the human communities that depend on them. Effects include public health impacts (including mental health), a reduction in healthy, nutritious traditional foods, significant erosion and water quality impacts, and harms to forest and riverine ecosystems including fish and wildlife.




**FIGURE 1 : Restoring Fire Regimes after an Era of Fire Exclusion.** Over a century of fire exclusion has disrupted the relationship between human communities, landscapes, and fire, increasing the risk of uncharacteristically severe wildfire over time. Reintroducing beneficial fire at the landscape scale can help to restore this relationship and manage built up fuels. We are at a decision point that will impact our collective future.

Cultural burning and prescribed fire are therefore essential tools to reduce wildfire risk, restore North America's fire-adapted and fire-dependent ecosystems and communities,[1] and respect Tribal sovereignty. Numerous studies have shown that use of prescribed fire reduces the scope and intensity of future wildfires, reducing fire suppression costs and creating safer conditions for responding firefighters, while protecting communities.[2] Moreover, the cyclical application of fire is a necessary condition for many ecosystems, improving wildlife habitat and watershed health. According to the Forest Service's recent ten-year strategy, restoration of 20 million acres of national forests and grasslands and 30 million acres of state, Tribal, and private lands, including through the use of good fire, would significantly reduce wildfire exposure in the highest risk areas and improve landscape-level resilience to climate change.[3]

In recent years, both policymakers and the media have picked up on cultural burning and community-based prescribed fire use as effective ways to tackle the wildfire crisis. We agree with this conclusion. **However, policymakers have not yet created the enabling conditions to make widespread use of cultural burning and placed-based prescribed fire a reality.** To move forward, the authority of Tribal governments and cultural fire practitioners should be acknowledged and access enabled, and Indigenous peoples should be provided with resources to burn as they know how, within their lands of territorial affiliation. Focusing efforts on enabling Tribes to revitalize and expand Indigenous stewardship—and catalyzing the success of non-governmental organizations that can partner with them—is critical to restoring our relationship with fire.

## WHAT'S NEW IN GOOD FIRE II

As part of its long-standing effort to lead the shift towards a new fire management paradigm, the Karuk Tribe commissioned the first *Good Fire* report for release in early 2021. The first *Good Fire* report summarized the legal and policy underpinnings of barriers to expanding the scope of cultural burning and prescribed fire use in California, as identified by cultural fire practitioners and community-based prescribed burners, and made recommendations to address them. Since its release, *Good Fire* has been widely cited by academics, lawmakers, and private and public entities alike as a key resource informing efforts across the

1 Fire-dependent ecosystems need wildfire to maintain appropriate function and health, while fire-adapted ecosystems have evolved to survive wildfire.

2 J. Sánchez et al., "Do Fuel Treatments in U.S. National Forests Reduce Wildfire Suppression Costs and Property Damage?" Journal of Natural Resources Policy Research (June 2019); X. Wu et al., "Low-intensity fires mitigate the risk of high-intensity wildfires in California's forests." Science Advances (2023).

3 The Forest Service, "Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests." (January 2022).

state to help advocate and create the enabling conditions for increased use of good fire.

The last few years have brought significant policy changes in California, at least in part because of *Good Fire's* contributions to the issue. Alongside these important steps at the state level, federal policy interventions and investment will be required to advance and sustain fire restoration efforts across jurisdictional boundaries. This updated version—*Good Fire II*—takes the recommendations to a larger scale, calling for transformational change at both the state and federal level, and providing a roadmap to revitalizing the relationship between humans and fire and fundamentally reimagining the systems used to steward it. It continues to prioritize reforms that will support cultural fire practitioners and community-based prescribed burners, based on the understanding that intimate knowledge of place is required for effective stewardship.

The release of *Good Fire II* also follows the September 2023 release of the Biden Wildland Fire Mitigation and Management Commission's final report. The Commission's mandate was to develop federal policy recommendations to more effectively prevent, manage, and recover from wildfires. Co-chaired by Department of Agriculture, Interior, and FEMA leadership, the Commission included representation from 11 federal and 36 non-federal members representing state, local, Tribal, and private entities. Bill Tripp, who also serves as Director of the Karuk Tribe's Department of Natural Resources and Environmental Policy, served as the designated Tribal Government Representative on the Commission.

In many ways, *Good Fire II* is intended to serve as a supplement to the Commission report, to be used as a tool for implementing the Commission recommendations in a manner that protects Tribal sovereignty and prioritizes Tribal leadership at all levels of stewardship and fire management. Where appropriate, *Good Fire II* indicates where its recommendations match those in the Commission report, or provides additional detail needed to pass laws or make policy reforms necessary to implement the Commission's more general recommendations, as follows:

- Recommendations built on Commission Recommendations

Much like the original *Good Fire*, this version takes a "barriers and recommendations" approach to address complex and interrelated issues. Identified barriers are arranged by topic area, framed by background information on the legal and policy frameworks.[4] For each topic, *Good Fire II* identifies possible solutions, ranging from internal agency changes to significant amendments to state and federal statutes. Accordingly, these solutions range greatly in both their efficacy in reducing barriers and their ease of implementation. To make this report accessible and easy to navigate for diverse readership, the recommendations in each Chapter are color coded and labeled to indicate whether they apply at the state or federal level as follows:

- Recommendations applicable to California state government S
- Recommendations applicable to the federal government F
- Recommendations applicable to both S F

4 As noted by C. Schultz, "the term 'policy' encompasses a variety of actions taken (or not taken) by the government, and changing policy is a complex process." Therefore, like seminal works on this topic, *Good Fire II* attempts to "distinguish between policy barriers that are 1) fixed in congressional laws, 2) a result of state or federal agency policy interpretations (e.g., regulations and agency guidance), 3) a result of agency culture or habit, and 4) a result of individual decisionmaking at the field level." C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper Number 86 (Summer 2018).



## THE IMPORTANCE OF CULTURAL BURNING

Indigenous people and their knowledge, practice, and belief systems recognize the need to burn to minimize wildfires and impacts thereof. Fire is a part of routine social activity; people set fires personally or engage in burning with others to achieve outcomes for the greater good of those involved (such as for wildlife habitat, hunting, improving food, fiber, and medicinal resources, reducing pest/diseases, or cleaning up the land). While such instances may be relatively invisible to many in the United States, burning carried out in remote Indigenous communities, such as the Aboriginal communities of Australia and other places around the world, illustrates this spectrum of purposes, where the time-tested use of fire is still part of daily life. Navigating the differences of policy in the United States can be difficult, but fire is the law of the land, and cultural practitioners are the conduit for upholding the law.

Indigenous cultural burning practices are distinguished from other fire management activities (e.g., those carried out by local, state, and federal agencies) through their connection to Tribal or Traditional Indigenous laws, objectives, outcomes, and the right to burn.[1] Traditional Indigenous law and lore are rooted in the landscape and stories that define a given culture.[2] In this context, each member of an Indigenous society has some connection to fire. From the first fire story, which many Indigenous societies recount, it is an inevitable process of life. It has been handed down as a responsibility through generations, with forebears mindful of their progeny in generations to come.

Since landscapes are dynamic in relationship to environmental and cultural processes, implementation of burning in space and time must also be dynamic, not limited by calendar dates or decisions made at broad regional or national scales. A cultural practitioner understands the encoding of such knowledge in the stories of their local watershed, their country, and even more broadly across a region. Their intimate familiarity with their home environment enables the reading of the landscape to convey its need for burning based on factors such as plant phenology, wildlife behavior, the accumulation of dead plant materials or a decline in resource conditions, soil moisture, seasonal weather patterns, and other factors. Similarly, cultural stories convey the penalties for not following the laws of the land. Naturally, such penalties might be the devastation caused by the fire itself, but could also include community restitution for damage to resources or rights of use, and in some instances the most severe penalties might be applied. Without cultural fire and a willingness to burn, larger and more severe wildfires will occur, and that is a consequence of not burning. To recognize that fire is the law of the land is to recognize that it is part of the laws of nature. We would do best to nurture our relationship to it, and work with it, rather than against it.

1 C.E. Eriksen and D.L. Hankins, "The Retention, Revival and Subjugation of Indigenous Fire Knowledge through Agency Fire Fighting in Eastern Australia and California." Society and Natural Resources (2014).

2 C.F. Black, "The Land is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence." Routledge (2011).



## A NOTE ON TERMINOLOGY

***Cultural burning and prescribed fire***: Historically, state and federal policy have mistakenly treated cultural burning as a subset of prescribed fire. Both involve the act of igniting fire in a specific landscape to achieve a desired outcome, such as fuel reduction or wildlife habitat improvement. However, cultural burning and prescribed fire are not the same.

**Prescribed fire** is implemented based on a "prescription" typically derived from models to determine conditions for burning. Fuels reduction is often the primary goal, though prescribed fires can be used for other co-benefits, such as habitat restoration, control of invasive species, restoration of forest resilience, watershed health, or cultural objectives. Prescribed fire typically includes the development of and adherence to a burn plan and smoke management plan, and may involve some environmental review, all governed by state or federal laws.[1]

**Cultural burning**[2] is the intentional application of fire to the land by an Indigenous person or cultural group (e.g., family unit, Tribe, clan/moiety, or society) to achieve cultural goals or objectives and based in Tribal or Traditional Indigenous law.[3] The right to engage in cultural burning remains unextinguished. It integrates holistic knowledge of place to guide the timing and implementation of burning activities. The reasons for cultural burning can be quite extensive, such as maintenance of travel corridors, wildlife habitat improvement, attracting wildlife to a place, water stewardship, pest control, stewardship of cultural plants, conservation, and spiritual, religious, or community ceremony. The scale of application has varied over time and by region, but the impact of cultural burning is landscape-scale.

1 In California, the Public Resources Code defines "prescribed burning" as "the planned application and confinement of fire to wild land fuels on lands selected in advance of that application to achieve any of the following objectives: (1) Prevention of high-intensity wild land fires through reduction of the volume and continuity of wild land fuels; (2) Watershed management; (3) Range improvement; (4) Vegetation management; (5) Forest improvement; (6) Wildlife habitat improvement; (7) Air quality maintenance." Pub. Resources Code §§ 4464(e); 4475. Federal law defines prescribed burning as "a planned and intentionally lit fire allowed to burn within the requirements of Federal or State laws, regulations, or permits." 36 C.F.R. § 261.2.

2 Cultural burns may also be called traditional fire (D. Yibarbuk, et al., "Fire Ecology and Aboriginal Land Management in Central Arnhem Land, Northern Australia: A Tradition of Ecosystem Management. "*Journal of Biogeography* (2001)), traditional burning, and Indigenous prescribed fire (D.L. Hankins., "The Effects of Indigenous Prescribed Fire on Herpetofauna and Small Mammals in Central California Riparian Ecosystems." California Geographer (2009); D.L. Hankins. "The effects of indigenous prescribed fire on riparian vegetation in central California." Ecological Processes (2013)), Aboriginal fire use (T. Vigilante, et al. "Aboriginal fire use in Australian tropical savannas: Ecological effects and management lessons" in M. A. Cochrane, "Tropical fire ecology: Climate change, land use, and ecosystem dynamics." Springer (2009)), traditional use of fire (D.A. Rodríguez-Trejo, et al. "The Present Status of Fire Ecology, Traditional Use of Fire, and Fire Management in Mexico and Central America." Fire Ecology (2011)), and Indigenous fire ecology (C. Fowler, "Ignition Stories: Indigenous Fire Ecology in the Indo-Australian Monsoon Zone." Carolina Academic Press (2013)).

3 In California, the Public Resources Code defines cultural burning as "the intentional application of fire to land by California Native American tribes, tribal organizations, or cultural fire practitioners to achieve cultural goals or objectives, including for subsistence, ceremonial activities, biodiversity, or other benefits." Pub. Resources Code § 4002.4.

## A NOTE ON TERMINOLOGY *(continued)*

For brevity, this paper refers to both prescribed fire and cultural burning as "good fire" or "beneficial fire" and then differentiates between cultural burning and prescribed fire as necessary to describe unique issues or recommendations. While beneficial fire also often includes wildland fire managed for resource benefit (such as in California's Strategic Plan for the Use of Beneficial Fire and the Commission report), this practice is generally outside the scope of *Good Fire II*, though touched on in Chapter 5. It is a critical part of the beneficial fire toolbox, however, and may be included in future updates.

***Indigenous stewardship***: Activities engaged in by Tribes or Indigenous peoples to steward the environment for diverse purposes. Examples include cultural burning, tending, pruning, collecting, planting, and coppicing.

***Tribes and cultural fire practitioners***: Cultural burns may be conducted by a diverse array of organizations and individuals. Complexity results from the varying treatment of Tribes and Indigenous peoples under existing state and federal law. For purposes of *Good Fire II*, the term "Tribe" refers to a California Native American Tribe or California Indian Tribe as defined under state law.[4] This term captures more Tribal entities than recognized under federal law but does not include all Tribes or Tribal entities in California. Where relevant, this paper also refers to federally recognized Tribes. The sovereignty of such Tribes is formally recognized by the federal government, and care is necessary to ensure that policy changes do not threaten or erode this critical recognition.

For purposes of *Good Fire II*, the term "cultural fire practitioner" refers to a person recognized by a California Native American Tribe or Tribal organization with substantial experience in burning to meet cultural goals or objectives, including for sustenance, ceremonial activities, biodiversity, or other benefits.[5] Such individuals may identify as Native American, Indian, or Indigenous. In contrast, other individuals engaged in the use of prescribed fire are referred to herein as "burners."

***Lands of Territorial Affiliation***: Tribal land tenures are complex, as discussed further in Chapters 1 and 2. "Lands of territorial affiliation" refers to the broadest area over which a Tribe would typically claim treaty, reserved, retained, or other similar Tribal rights, and is defined herein as those places of customary and consistent use by a Tribe before contact with Europeans. We also recognize that some Tribes were forcibly removed from all or some of their ancestral homelands, and this term should also include those places of customary and consistent use established by a Tribe after such relocation.

***Tribal Right or Retained Right***: As used herein, "Tribal right" or "Retained Right" refers to the rights retained by a Tribe, which are foundational to the principals of self-governance and self-determination. Such rights may include reserved, treaty, or aboriginal rights, each of which has a somewhat different meaning. For example, under the "Reserved Rights Doctrine," rights not addressed in a treaty between a Tribe and the federal government are presumptively "reserved,"[6] and cannot be implicitly abrogated or lost. However, the Reserved Rights Doctrine does not neatly apply to Tribes without formal treaties, who nevertheless retain rights associated with sovereignty. Aboriginal rights refer to those claimed by a Tribe by virtue of its exercise of sovereignty with respect to those rights; these are generally tied to an aboriginal title claim.[7]

4 The Native American Heritage Commission maintains a list of all California Native American Tribes/California Indian Tribes for purposes of certain state laws. *See, e.g.*, Health & Saf. Code § 8012(c); Pub. Resources Code § 21073.

5 This definition varies somewhat from the definitions currently found in Public Resources Code section 4002.6 and Civil Code 3333.8(f), though as of the publication date, amendments to these definitions are pending in the California Legislature (SB 310) to match the language used herein.

6 *United States v. Winans*, 198 U.S. 371, 381 (1905).

7 *Mitchel v. United States*, 34 U.S. 711 (1835).



## CHAPTER 1: CULTURAL BURNING AS A TRIBAL RIGHT

Cultural burning is separate and distinct from prescribed fire. While both forms of beneficial fire are essential to restoring good fire to the landscape, cultural fire has history, motivation, and meaning beyond the benefits it can reap for the environment. To undertake a comprehensive examination of the barriers to good fire, it is necessary to explore the unique experiences and challenges of Tribes and cultural fire practitioners. Although the fire suppression and exclusion paradigm has negatively impacted all communities, it has most strongly affected Tribes who have practiced cultural burning since time immemorial.

An understanding of cultural burning must be rooted in Tribal sovereignty, including self-determination and self-governance. As political entities, Tribes have retained sovereignty, or the authority to govern themselves. The degree of sovereignty depends on the activity in question, the location, the participants, and the Tribe's status, as well as who you ask.[5] Disagreements over retained sovereignty have defined the complex relationship between the United States, individual states, Tribes, and Indigenous peoples.

Sovereignty over stewardship of lands, waters, and natural resources within their lands of territorial affiliation is a fundamental aspect of Tribal self-governance and self-determination. Indeed, Tribes throughout California have codified and exercised such authority through their Tribal constitutions.[6] The Karuk Tribe, for instance, expressly reserves authority over "[a]ll lands, waters, natural resources, cultural resources, air space, minerals, fish, forests and other flora, wildlife, and other resources, and any interest therein, now or in the future, throughout and

5 *Compare, e.g.*, Karuk Tribal Const., art. II, § 5 ("The laws of the Karuk Tribe shall extend to…[a]ll lands, waters, natural resources, cultural resources, air space, minerals, fish, forests and other flora, wildlife, and other resources, and any interest therein, now or in the future, throughout and within the Tribes' territory.") *with Michigan v. Bay Mills Indian Community* (2014) 572 U.S. 782, 788 ("Indian tribes are "'domestic dependent nations'" that exercise "inherent sovereign authority." *Oklahoma Tax Comm'n v. Citizen Band Potawatomi Tribe of Okla.*, 498 U.S. 505, 509 [] (1991) (*Potawatomi*) (quoting *Cherokee Nation v. Georgia*, 5 Pet. 1 [] (1831)). As "dependents," the tribes are subject to plenary control by Congress. *See United States v. Lara*, 541 U.S. 193, 200 [] (2004) ("[T]he Constitution grants Congress" powers "we have consistently described as 'plenary and exclusive'" to "legislate in respect to Indian tribes"). And yet they remain "separate sovereigns pre-existing the Constitution." *Santa Clara Pueblo v. Martinez*, 436 U.S. 49, 56 [] (1978). Thus, unless and "until Congress acts, the tribes retain" their historic sovereign authority. *United States v. Wheeler* 435 U.S. 313, 323 [] (1978).").

6 *E.g.*, Karuk Tribal Const., art. II, § 5; Yurok Tribal Const., art. I, § 3 (exercising jurisdiction over "all lands, waters, river beds, submerged lands, properties, air space, minerals, fish, forests, wildlife, and other resources" within the Tribe's territory).

within the Tribe's territory."[7] Tribes practice place-based cultures, and many have a responsibility to steward those places with respect, reciprocity, and relationship, including using fire to balance natural resources for the benefit of the natural world.

These Tribal rights have been recognized through a variety of legal doctrines. For instance, treaties between the United States and Tribes generally outline the rights that Tribes have granted in exchange for other benefits, actions, or commitments from the United States. Under the Reserved Rights Doctrine, any rights not explicitly described in treaties are therefore retained and must be respected unless explicitly abrogated by Congress. For example, *United States v. Winans*, 198 U.S. 371, 381 (1905) held that treaties are "not a grant of rights to the Indians, but a grant of rights from them, a reservation of those not granted." These reserved rights may include rights such as cultural burning, as well as rights to access and utilize traditional foods, fibers, and medicines. Without a specific agreement to relinquish these rights, Tribes would have assumed that such rights were retained as an inherent aspect of sovereignty and stewardship responsibilities.[8]

In California, the treaties developed with Indigenous leaders were never ratified by Congress. In such circumstances, the Reserved Rights Doctrine should apply with even greater force. As these treaties were never accepted by the United States, the rights described therein—as well as those not covered by the treaty, such as the practice of Indigenous stewardship—are still retained to this day. This retained right to engage in cultural burning and related Indigenous stewardship practices, among other rights, applies on lands throughout Karuk's lands of territorial affiliation, including on lands now also administered by public agencies.

The acknowledgement of these retained rights is also an appropriate response to the centuries of systemic injustice forced on Indigenous peoples, and the resulting negative impacts to both Indigenous peoples and their lands. For the Karuk, non-Native people began to arrive in large numbers to the Tribe's lands of territorial affiliation in the 1800s. Conflicts escalated with the gold rush, and California began an official campaign of genocide, killing three-quarters of the Karuk population and thousands of other Indigenous peoples. In his 1851 State of the State address, Governor Peter Burnett declared "[t]hat a war of extermination will continue to be waged between the races until the Indian race becomes extinct . . . ."[9] Burnett set aside over $1 million to arm local militias against Natives and, with the help of the U.S. Army, distributed weapons to the militias who were tasked with raiding Tribal outposts and scalping and killing Native people. Local governments put bounties on Native scalps and paid settlers for stealing horses of the Native people they murdered. The California Legislature passed the 1850 Act for the Government and Protection of Indians, which facilitated the removal of Indigenous peoples from their lands, the separation of Indigenous children from their families, and the indenture of Indigenous people to Whites.[10] The Act also purported to criminalize "set[ting] the prairie on fire" or "refus[ing] to use proper exertions to extinguish the fire when the prairies are burning."[11]

In 1864, the Hoopa Valley Indian Reservation was established,[12] and all Karuk people were ordered to leave their ancestral lands along the mid-Klamath and lower Salmon rivers and relocate to the Reservation. Many people did so. Others fled to the high country.

On May 6, 1905, President Theodore Roosevelt purported to set aside the Klamath Forest Reserve, which includes most of the Karuk Aboriginal Territory. The new administrators of this landscape focused on fire suppression and timber production, attempting to outlaw or prohibit the Indigenous stewardship practices that shaped the landscape.

Both federal and state governments continue their attempts to interfere with the exercise of Tribal sovereignty in the modern era. Congress retains plenary authority over Indian affairs.[13] Through this power, the federal government has attempted to exercise extensive

7 Karuk Tribal Const., art. II, § 5.

8 *Worcester v. Georgia*, 31 U.S. 515, 546, 550-52 (1832).

9 California State Library, Governor's Gallery (2024), available at https://governors.library.ca.gov/addresses/s_01-Burnett2.html

10 The Act for the Government and Protection of Indians (AB 129, 1850).

11 *Id.*, § 10. The Act was not repealed in its entirety until 1937.

12 In 1851, U.S. Indian Agent Redick McKee negotiated eighteen treaties throughout California, including with the Karuk Tribe, that would have set aside approximately 7.5 million acres of land as reservations. But Congress failed to ratify these treaties after the California Legislature objected, and a Karuk reservation was not created.

13 *United States v. Lara*, 541 U.S. 193, 200 (2004).

authority over Tribal forest management, both in Indian Country[14]—which is often understood to mean lands within Tribal reservations, dependent Indian communities, and Indian allotments[15]—and on lands now administered by public agencies.[16] The scope and extent of unceded Tribal territories and of many Tribal rights, however, including those that cannot be infringed upon by any other governments, have not been fully determined.

Within Indian Country, Tribes are generally afforded the right to manage their resources free from state regulation and interference.[17] Even in states where Congress has permitted state exercise of criminal jurisdiction in Indian Country[18]—such as California—the U.S. Supreme Court has curtailed the exercise of state civil jurisdiction. Generally, so long as state laws are "regulatory" in nature, states cannot impose them on Indians within Indian Country.[19] Moreover, the rights of states with respect to Tribal activities on unceded lands remains largely untested.

Tribes therefore rightfully assert their retained jurisdiction over natural resources located throughout their lands of territorial affiliation, which are often significantly larger than lands officially recognized as "Indian Country." Formal title to such lands may now be carried by the federal government, the state, or other non-Tribal owners. However, many of these lands were never ceded, which brings into question the legitimacy of those titles. Consequently, attempts by state or federal governments to exercise jurisdiction over cultural burning pose a significant barrier for cultural fire practitioners.

Nevertheless, Tribes, Tribal members, and Indigenous peoples retain and exercise such sovereignty, permitting them the opportunity to practice and implement the laws of the natural world. The use of cultural burning is a critical part of that natural law. As articulated by cultural fire practitioner and scholar Don Hankins:

> *Fire is codified in the law of the land, and it has been so since time immemorial; it has always been here and always will be....To recognize that fire is the law of the land is to recognize that it is part of the laws of nature....Indigenous fire knowledge encompasses a complex understanding of the environment and reading of a landscape's needs and indicators for when, where, and what type of fire should be used to achieve desired outcomes for the land.*[20]

By recognizing the inherent authority of Tribes and cultural fire practitioners to engage in the use of cultural fire across lands of territorial affiliation, landscapes can be returned to a condition in which the laws of nature are recognized and respected.

### BARRIER: Entities Mistakenly Treat Cultural Burning as Prescribed Fire.

Part of the difficulty faced by Tribes and cultural fire practitioners is that state and federal law—at least until recently—have not recognized the distinction between prescribed fire and cultural burning. As such, both the state and federal governments have attempted to impose regulations and requirements for prescribed fire onto cultural burning practices[21] without recognizing the meaningful distinctions between the two.

Recent legislation in California has sought to remove some of these barriers. Most notably, AB 642 and SB 332 (both enacted in 2021) and SB 926 (enacted in 2022) explicitly recognized cultural burning as distinct from prescribed

14 The legal definition of Indian Country is not particularly clear. Further work is needed to develop an appropriate and consistent definition of Indian Country. This may include a working group established by Congress to develop recommendations to modify the definition of "Indian Country" in 18 U.S.C. § 1151, in order to address inconsistent Supreme Court interpretations, especially of "dependent Indian communities." Such revisions should account for the diversity of reserved, retained, and constitutional rights upon ceded and unceded lands throughout the United States.

15 18 U.S.C. § 1151.

16 *See, e.g.*, National Indian Forest Resource Management Act, 25 U.S.C. § 3101-20; Tribal Forest Protection Act, 25 U.S.C. § 3115a; and the BIA's Reserved Treaty Lands Rights program. The Indian Self-Determination and Education Assistance Act (25 U.S.C. §§ 5308, 5321) and the Tribal Self-Governance Act (25 U.S.C. § 5363) also regulate the extent to which Tribes may assume primary management authority over forestry programs.

17 *Oklahoma Tax Comm'n v. Sac & Fox Nation*, 508 U.S. 114, 125 (1993); *Shivwits Band of Paiute Indians v. Utah*, 428 F.3d 966, 982 (10th Cir. 2005); *Wash. Dept. of Ecology v. EPA*, 752 F.2d 1465, 1469-71 (9th Cir. 1985) (even for cooperative federalism, state primacy over Indian Country would be inconsistent with federal policy of promoting Tribal self-determination).

18 *See, e.g.*, 18 U.S.C. § 1162(a); 25 U.S.C. §§ 1321(a), 1322(a); 28 U.S.C. §1360(a). Such states are generally referred to as "Public Law 280" states.

19 *California v. Cabazon Band of Mission Indians*, 480 U.S. 202, 210 (1987).

20 D. Hankins, "Reading the Landscape for Fire." Bay Nature (January 2021).

21 34 Ops.Cal.Atty.Gen 241 (1959) (finding that "Indians and others owning property within an Indian reservation are required to obtain permits" for prescribed fire, as a result of Public Law 280). This opinion is likely no longer valid after *California v. Cabazon Band of Mission Indians* 480 U.S. 202, 210 (1987), but the state still asserts an ability to pursue civil damages or criminal penalties against cultural fire practitioners, particularly for an escaped burn that causes damage or bodily harm to non-Indians, despite retained sovereignty over cultural practices.

fire, to ensure cultural fire practitioners could have access to certain benefits. For example, AB 642 created a Tribal liaison position within CAL FIRE, and directed the agency to "respect tribal sovereignty, customs, and culture" when engaging with Tribes and cultural fire practitioners.[22] SB 332, which shifted the liability standard for fire suppression costs from simple to gross negligence, offered different standards for cultural fire practitioners, recognizing that such practitioners may not prepare written burn plans typical for prescribed fire.[23] Finally, SB 926, which operationalized California's Prescribed Fire Claims Fund Pilot, a state-backed form of insurance for private burners, likewise recognized that the burn plans of cultural fire practitioners would look different from those of other burners.[24] Using the term "cultural burning" in state law allows such activities to be included in these state benefits; however, these changes also highlight the need for further work to ensure state permitting structures respect Tribal sovereignty, as described further in this Chapter.

Acknowledging cultural fire and cultural fire practitioners in federal law would clarify the legal foundation for cultural burning and eliminate open questions about the application of prescribed fire restrictions to the practice. However, as seen in California, simply acknowledging or defining the existence of cultural burning and cultural fire practitioners does not go far enough. Well-meaning attempts to include cultural burning in policy efforts geared at expanding the use of beneficial fire can inadvertently result in diminishing Tribal sovereignty by improperly implying the existence of state and federal authority over the practice. Beyond definitions, more work must be done to continue to build support for cultural burning while ensuring that Tribal sovereignty remains central in a historically hostile legal landscape.

## RECOMMENDATIONS

➤ **Recommendation 1.** Congress should explicitly acknowledge cultural burning and cultural fire practitioners in federal statute. The language used should ensure that each Tribe can define cultural burning practices according to their own custom and practice. Cultural burning is rooted in Tribal law and Tribal sovereignty, and federal and state policy must not infringe upon cultural practitioners' right to burn. S F [25]

### BARRIER: State and Federal Agencies Assert They Must "Permit" or "Allow" Cultural Burning on Lands of Territorial Affiliation.

IKPBS guides the timing and implementation of cultural burns. Tribal sovereignty, jurisdiction, and responsibility over natural resources within lands of territorial affiliation ensures Tribes and cultural fire practitioners have authority to determine when, where, and how to apply cultural burns to these lands. Existing policy—when state or federal governments attempt to impose it through items like burn plans and permits, qualification requirements, or smoke management regulations—interferes with the sovereignty of Tribes, whose cultural fire practitioners have deep expertise and IKPBS to guide decisions about where and when to burn.

As cultural burning is a practice rooted in the sovereign authority of Tribes and the rights of Indigenous peoples, it should not be subjugated to the various regulations and requirements developed by federal and state agencies to control the use of prescribed fire. Indeed, as California Tribes (and many others across the country) never ceded their right to apply fire to their lands of territorial affiliation, cultural burning is a retained right and any laws pertaining to beneficial fire use should recognize it as such.

Rather than acknowledging retained rights, however, both state and federal agencies attempt to impose regulatory restrictions on cultural burning and other retained Indigenous stewardship practices or refuse to accommodate Indigenous stewardship without an explicit grant of Congressional authority. These failures look different across different land tenures—such as lands held in trust for Tribes or individuals, lands jointly administered by state or federal agencies and Tribes, and lands owned in fee by Tribes or private individuals or organizations—but always amount to an infringement on Tribal sovereignty. Agencies often say that they respect Tribal sovereignty, but rarely do they show that respect in practice.

On lands held in trust for federally recognized Tribes, for example, the Bureau of Indian Affairs (BIA) asserts regulatory authority over prescribed fire use. This includes stating that Tribes are expected to obtain BIA approval of Forest Management Plans, Fire Management Plans, and Prescribed Burn Plans, all developed to BIA standards; use federally qualified personnel; and complete environmental

22 Pub. Resources Code § 4114.3(a)(2).

23 Civil Code § 3333.8(b)(7).

24 See FAQs at https://experience.arcgis.com/experience/84e096e452b545baa75450e3401b2616/page/Application/.

25 **Commission Recommendation 16**: Congress should acknowledge Tribal cultural burning in federal law, [and] ensure it is not confused with prescribed fire . . . .

analyses in order to burn.[26] Some Tribes report that the BIA has attempted to impose the same rules on cultural burning. Despite the urgent need to increase the use of beneficial fire and the strong desire of Tribes to grow their programs, Tribes have cited the BIA as often being slow or reluctant to approve such plans and projects, with delays regularly reaching multiple years. Therefore, on the lands over which Tribes are intended to have the most authority, they are being impeded by federal agency regulations misguidedly intended to "protect" Tribal trust resources.

On lands jointly administered by state or federal agencies and Tribes, Tribes desiring to exercise retained cultural burning rights are often stymied by planning, public safety, and environmental assessment regulations that should only govern state and federal actions, not those of Tribes. For instance, on lands administered by the U.S. Forest Service, employees assert that full compliance with federal law is required before they are allowed to "permit" cultural burning activities to occur, even though agencies are required to respect and accommodate Tribal rights, including without explicit Congressional direction. Instead, agencies assert to "permit" cultural burning, they must amend the relevant forest plan under the National Forest Management Act, develop environmental assessments under the National Environmental Policy Act and historic resource assessments under the National Historic Preservation Act, fulfill consultation and survey obligations under the Endangered Species Act, obtain air permits intended to implement the Clean Air Act, and require use of federally qualified burn bosses and other staff, even though no federal action should be involved. Imposition of these regulations—and indeed, the very idea of federal "control" over cultural burning—amounts to federal infringement on the exercise of a retained right, contrary both to the principles of Tribal sovereignty and self-governance and to the federal trust obligation to ensure the protection of Tribal rights.

Finally, on private lands (such as those owned by nonprofit organizations or private individuals), the state asserts regulatory oversight through the imposition of permitting regimes. In California, prescribed burners generally must obtain CAL FIRE or similar burn permits and air quality management permits, as described further in Chapters 7 and 9. While the state has defined cultural burning and recognized some differences between cultural fire practitioners and prescribed burners (i.e., by not requiring cultural fire practitioners to use written burn plans to access the gross negligence standard for fire suppression costs), state agencies still assert that cultural fire practitioners must obtain state permits when burning on private land. For instance, access to the gross negligence standard still requires that burns be authorized pursuant to the Public Resources Code (which generally requires burn permits during certain times of year) and that air quality permits be obtained.[27] Access to the Prescribed Fire Claims Fund Pilot likewise requires cultural fire practitioners to obtain all required permits.[28] No state or local agency has made a formal determination that burn permits or air quality permits are not required for cultural burns, leading to uncertainty and a continued infringement on sovereignty.

As of March 2024, the Karuk Tribe is making efforts to resolve this uncertainty in state law, by creating a pathway for the state to enter into sovereign-to-sovereign agreements with Tribes regarding the conduct of cultural burns on non-federally administered lands. If adopted, the legislation would make clear that burn permits and air quality permits are not necessary for cultural burns.

Questions about sovereign immunity also impede Tribal participation in state programs. Sovereign immunity is an inherent aspect of sovereignty, which Tribes have retained as a matter of both Tribal and federal law. It provides Tribes and their officers with protection against liability, unless specifically abrogated by the Tribe or by Congress.[29] Cultural fire practitioners and Tribes report that state agencies often require Tribes to waive their sovereign immunity before accepting funding or entering into contracting agreements to implement burns.

## RECOMMENDATIONS

- **Recommendation 2.** Ensure that Tribes are properly recognized as separate sovereigns with retained rights regarding cultural burns on all lands of territorial affiliation. S F Specific recommendations include:
  - The Executive Branch or Congress should affirm that federally recognized Tribes may develop fire programs on trust lands without the need for BIA oversight or approval. Such Tribally developed

26 National Indian Forest Resources Management Act of 1990 (P.L. 101-630).

27 Civ. Code § 3333.8(b)(4), (6).

28 Pub. Resources Code § 4500(e)(2)(B), (C).

29 *Kiowa Tribe v. Manufacturing Technologies, Inc.*, 523 U.S. 751, 754 (1998); *Three Affiliated Tribes of the Ft. Berthold Reservation v. Wold Engineering, P.C.*, 476 U.S. 887, 890-91 (1986); *Puyallup Tribe v. Dept. of Game*, 433 U.S. 165, 172-73 (1977).

programs may include Tribal planning documents, determination of necessary qualifications for participants, and mechanisms for project approval, developed in accordance with Tribal law. Alternately, Tribes may still elect to contract or compact for prescribed fire programs using 638 authorities (and therefore follow federal requirements and receive federal funding and federal tort coverage). Allowing Tribal choice with respect to fire programs respects the principles of both Tribal self-governance and the federal trust responsibility. F [30]

- The Executive Branch or Congress should affirm Tribal sovereignty with respect to cultural burning on lands administered by federal agencies. In furtherance of that sovereignty, Congress should authorize the federal government to work with individual Tribes to create conditions that enable Tribal cultural burning on federally administered lands and under Tribal authority. Mechanisms to facilitate this coordination should:
  - ensure that the federal government does not need to approve or otherwise exercise decisionmaking authority over Tribal cultural burning activities;
  - be long lasting, to prevent the need for constant renegotiation; and
  - provide flexibility for individual Tribal needs and preferences. F [31]
- The Executive Branch should recognize lands with concurrent jurisdiction (where both a Tribe and a federal agency assert jurisdiction) and ensure that Tribal sovereignty in these lands is acknowledged and respected. F
- The California Legislature should acknowledge the sovereignty of Tribes with respect to cultural burning and provide authority for the state to enter into sovereign-to-sovereign agreements recognizing Tribal jurisdiction over such activities. Such a change would eliminate the current uncertainty in the application of the gross negligence standard and the Prescribed Fire Claims Fund Pilot for Tribes that enter into such an agreement. SB 310, pending in the California Legislature as of March 2024, is one way to implement this recommendation. S

➤ **Recommendation 3.** Federal and state agencies should review policies and identify potential barriers to the exercise of reserved, retained, and other rights by Tribes and their members, including the right to engage in cultural burning and other forms of Indigenous stewardship, and make clear to employees and representatives of that agency that the exercising of these rights is welcome and encouraged. S F

### BARRIER: The Expertise of Cultural Fire Practitioners Is Not Formally Recognized.

Prescribed fire training is heavily formalized. On the federal side, the National Wildfire Coordinating Group (NWCG) oversees training and certifications for prescribed burners employed by federal agencies, such as the Forest Service and the BIA. On the state side, CAL FIRE offers training academies for its employees. Private burners can also become certified as burn bosses through the relatively new State Certified Prescribed Fire Burn Boss Certification (CARX). Certification brings numerous benefits, including the ability to staff certain state and federally led burns, access insurance coverage and the Prescribed Fire Claims Fund pilot, and approve burn plans for access to the gross negligence standard for fire suppression cost liabilities.

Because these certification programs focus on prescribed fire, these significant benefits are less accessible or relevant to cultural fire practitioners. While such separation is appropriate (prescribed burners should not be attempting to teach cultural burning), the existing programs are likely to feel unwelcome or inappropriate for cultural fire practitioners. Rarely are the unique skills, knowledge, and concerns of cultural fire practitioners recognized, nor are relevant IKPBS represented. Instead, if cultural fire practitioners wish to access the benefits of certification, they must move through the established training pathways, and complete required hours of on-the-ground training, often in both prescribed fire and fire suppression, in order to become certified.

Cultural fire practitioners learn by doing. Traditionally, burning at landscape scale is overseen by recognized practitioners with extensive knowledge and practice, and supported by the larger community or family networks for implementation. Such activities are typically intergenerational, with opportunities for knowledge transfer and capacity building by seeing and doing.

30 **Commission Recommendation 15**: Congress should require the BIA to acknowledge that federally recognized Tribes may develop fire programs on Tribal trust lands under approved Tribal laws, regulations and policy, or other Tribal decisionmaking processes.

31 **Commission Recommendation 16**: Congress should . . . grant agencies the authority to coordinate with Tribes on the conduct of Tribal cultural burning on federally administered lands.

California has begun the process of formally recognizing cultural burning experience, by treating cultural fire practitioners as equivalent to certified burn bosses for the purposes of both suppression cost liability and access to the Prescribed Fire Claims Fund Pilot. However, cultural fire practitioners remain unrecognized when it comes to leading or participating in certain burns where qualifications are required or when accessing insurance.

## RECOMMENDATIONS

- **Recommendation 4.** As noted in Recommendation 2, the rights of Tribes and cultural fire practitioners should be acknowledged with respect to cultural burning and with respect to the development of beneficial fire programs on Tribal trust lands, supporting Tribal oversight of practitioner development and experience. S F
- **Recommendation 5.** For other types of burns, Congress and the California Legislature should amend federal and state law to recognize a cultural fire practitioner certification program or programs, with the same benefits as the state or federal certification programs, but run by cultural fire practitioners. Such programs could be established by individual Tribes or by a consortium of Tribes and cultural fire practitioners. While no formal qualifications process exists at present to sanction a cultural practitioner as one qualified to burn on par with federal or state qualifications, a process of lifelong learning, community recognition, and lived experience cultivates highly-skilled practitioners that can engage in stewardship of the landscape beyond the qualifications afforded by existing accredited systems. S F [32]
- **Recommendation 6.** Congress and the California Legislature should consider mechanisms to integrate non-Indigenous and Indigenous certification systems, in order to facilitate shared learning and cross-support in implementation. S F
- **Recommendation 7.** Congress and the California Legislature should authorize and fund Tribally led mentorship and leadership programs, including between Tribal youth, elders, and cultural practitioners in order to create accessible and relevant education surrounding natural resources for the next generation of Indigenous stewards. S F [33]

### BARRIER: The Enabling Conditions Necessary for Landscape-Scale, Multi-Jurisdictional Stewardship Are Not Yet in Place.

The lands of territorial affiliation of many Tribes are a patchwork, often including a mix of Tribal trust land, Tribal fee land, individual allotments, unceded ancestral or aboriginal territory, lands under the administration of state and federal agencies, private lands, and/or lands that might fall in multiple categories (i.e., lands where both a Tribe and federal government assert jurisdiction as shown in Figure 2). Yet ecosystems do not fit neatly into these administrative boundaries. As such, effective stewardship requires multi-jurisdictional planning and resource management.

Under current law, Tribes are not equitably engaged in stewardship planning decisions for landscapes where federal agency administration and Tribal lands of territorial affiliation overlap. Despite being directed to consult with affected Tribes, federal agencies often recognize little to no decisionmaking authority for Tribes to ensure Tribal interests in these jointly administered lands are properly respected and stewarded. Moreover, federal planning efforts are often delayed, as agencies navigate capacity constraints, complex regulatory burdens, and competing interests. Deference to Tribal leadership in multi-jurisdictional planning would allow integration of IKPBS into management practices on federally administered lands and may speed up much-needed management plans and planning updates, with benefit to both Tribal and non-Tribal communities alike.

There are a number of existing mechanisms that enable Tribal leadership in resource management planning. Under the National Indian Forest Resources Management Act (NIFRMA), Integrated Resource Management Plans (IRMP) allow for the comprehensive management of a Tribe's natural resources.[34] IRMPs are policy documents prepared by a Tribal government to determine holistic management objectives including quality of life, resource production goals, and landscape management of designated resources, such as water, wildlife, and forestry. As it stands, however, there is no clear authority allowing Tribes to create landscape-scale IRMPs *across* jurisdictional boundaries, even when Tribal resources are at risk or when such areas fall with Tribal lands of territorial affiliation. Expansion of the use of IRMPs on federally administered

32 F.K. Lake, M.R. Huffman, and D.L. Hankins, "Indigenous Cultural Burning and Fire Stewardship" in: F.C. Rego et al., "Fire science from chemistry to landscape management." Springer Nature (2021).

33 Part of **Commission Recommendation 88**. Congress should provide funding and authorization for expanded recruitment strategies.

34 25 U.S.C. § 3103(15).

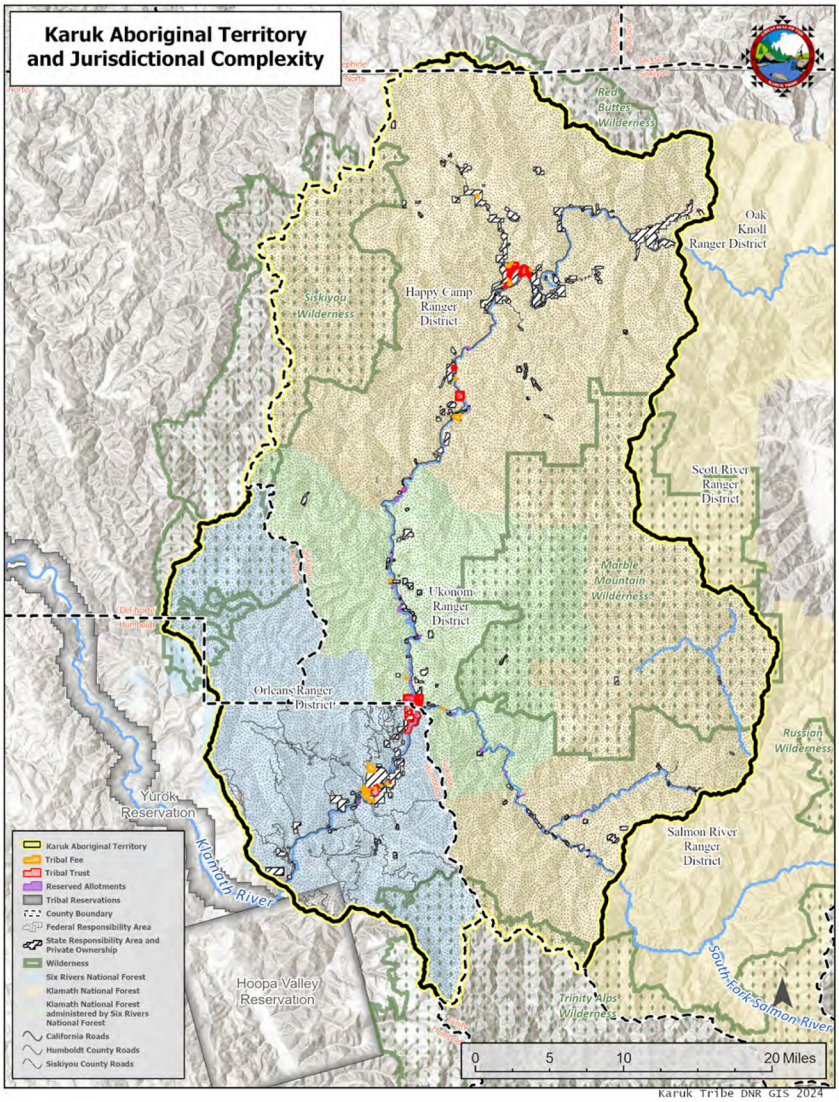



**Figure 2. Map of Karuk Aboriginal Territory and Jurisdictional Complexity.** Karuk Aboriginal Territory and other lands fall within Karuk jurisdiction, however as shown on this map, there are additional overlapping and joint jurisdictions asserted by other entities as well, resulting in the need for collaboration, coordination, and co-management. Map created by Will Bruce, Chaas Hillman, and Kenny Sauve for the Karuk Tribe.

lands throughout Tribes' lands of territorial affiliation would promote cohesive, sustainable ecological restoration and wildfire resilience through effective cross-boundary planning and coordination, likely at a pace faster than relying on the federal government to do it alone. This would also have the enormous benefit of including not only Indigenous Knowledge (which is often taken and applied out of context), but also being rooted in and based on holistic IKPBS, creating a deep and time-tested foundation.

Current law also fails to effectively recognize that the federal trust responsibility encompasses more than just Tribal trust lands and treaty assets. Under the trust responsibility, the United States should ensure the protection of Tribal and individual Indian lands, assets, resources, and treaty and similar rights, in order to carry out the "'moral obligations of the highest responsibility and trust' toward Indian tribes."[35] As discussed above, the United States has largely failed to formally acknowledge Tribal rights related to cultural burning and Indigenous stewardship, and therefore has failed to ensure their protection.

This failure is apparent in the Indian Trust Asset Reform Act (ITARA), which was adopted in 2016 to allow and fund Tribes to carry out certain trust asset management activities under Tribal, rather than federal, laws and without approval of the federal government. However, ITARA is specifically limited to trust assets "that are located within the reservation, or otherwise subject to the jurisdiction, of the Indian Tribe."[36] Despite the fact that Tribes often assert jurisdiction over lands and resources concurrently administered by the federal government, federal agencies have largely refused to acknowledge this shared management authority. As such, ITARA has been unavailable for trust assets that are located on these lands of concurrent jurisdiction, even where they are "subject to the jurisdiction" of a Tribe,[37] as recognized by a Tribal Constitution or law.[38] This omission prevents Tribes from comprehensively managing trust assets—such as elk, salmon, culturally important plants, and the habitats they rely on—across jurisdictional boundaries.

## RECOMMENDATIONS

- **Recommendation 8.** Congress should revise NIFRMA or other federal statute to enable the development of Tribal IRMPs at the scale of a Tribe's lands of territorial affiliation and inclusive of all lands relevant to the stewardship or administration of the relevant resources. This necessitates effective and extensive authorities for the co-stewardship, co-administration, and co-governance of federal programs across the whole of government. IRMPs would establish and coordinate land and resource management objectives and directives throughout Tribal and federal jurisdictions, facilitate environmental review, and work in concert with land management plans adopted pursuant to federal laws like the National Forest Management Act (NFMA) and the Federal Land Policy and Management Act (FLPMA). Once adopted by the Tribe and the Secretary of the Interior, the Tribal IRMP would have the same legal authority as planning documents adopted by federal entities and would enable Tribes to contract or compact to implement projects or programs included in the IRMP. The revised authority should include mechanisms to ensure coordination between the Tribe and the appropriate federal agency, to ensure the IRMP and any relevant federal plan work together for the purposes of federal program delivery.[39] Where appropriate, such plans may also provide for tribal co-governance or co-stewardship with a state, where states are interested in coordinating on lands administered by the state. F
- **Recommendation 9.** As an intermediate step, Congress should ensure that Tribes are more comprehensively involved in the land management planning efforts already undertaken by federal agencies, and agencies should explore ways to expand cross-boundary planning across lands of territorial affiliation in concert with Tribes. Any planning that occurs on lands that fall

35 *Haaland v. Brackeen,* 599 U.S. 255, 275 (2023).

36 25 U.S.C. § 5613(a)(2)(B).

37 25 U.S.C. § 5613(a)(2)(B).

38 Notably, for the Karuk Tribe, the Secretary of the Interior approved the Karuk Constitution, which recognizes Tribal jurisdiction over both Aboriginal Lands and service areas. Karuk Constitution, Article II, § 5.

39 **Commission Recommendation 30** calls for Congress to create a stand-alone authority to allow the Department of Agriculture to enter into co-management agreements with Tribes, which would allow the Forest Service to transfer decisionmaking authority to a Tribe for management of Forest Service programs. As written, this broad authority would allow for the joint management of federal lands under Forest Service forest planning documents if agreed to by the agency, providing an important stepping stone towards more comprehensive co-management. The recommendation above regarding IRMPs is intended to build on this recommendation, in alignment with the spirit and intent with which it was developed. Such authority would enable the more meaningful multijurisdictional stewardship as Congress has repeatedly called for, while also providing Tribes with management and planning authority with respect to their lands of territorial affiliation.



within Tribes' lands of territorial affiliation should be informed by meaningful and ongoing Tribal consultation and conducted in ways that honor Tribal sovereignty. This means that Tribes should be involved starting at the earliest point possible in setting out programs and projects, identifying the needs, scope, and priority of projects, and throughout the planning and implementation of those projects. Some examples of this level of collaborative planning exist between the Karuk Tribe and the Six Rivers National Forest as part of the Western Klamath Restoration Partnership. F [40]

- **Recommendation 10.** Congress should modify ITARA to apply to trust assets—including those protected by retained rights—on both federally administered lands and Tribal trust lands. Congress should also make permanent the Indian Trust Asset Management Demonstration Project by eliminating the 10-year sunset, allowing all Tribes to automatically participate, and allocating funding to ensure the development of Tribal capacity for the successful implementation of Indian Trust Asset Management Plans. F [41]

40 **Commission Recommendation 28**: Congress should reinforce federal agency requirements for coordination with Tribes when engaging in land management planning.

41 **Commission Recommendation 31**: Congress should make permanent the Indian Trust Asset Management Demonstration Project by eliminating the 10-year sunset, allowing continued participation in the Indian Trust Asset Reform Act.



## CHAPTER 2: TRIBAL LAND AND RESOURCE ACCESS

**BARRIER: Tribes Lack Assured Access to Engage in Indigenous Stewardship.**

Many Tribes throughout California and the United States lack assured, unchallenged access to most of their lands of territorial affiliation. Without assured access and rights to steward, Tribes cannot complete the cultural burning and other Indigenous stewardship activities needed to restore resilience and forest health without risking citation, fines, or jail time. Alternate pathways—such as litigating every land claim—challenge Tribal capacity and create significant risk and uncertainty in potentially hostile courts.

One way to facilitate such access is to ensure that Tribal rights are understood and respected by federal and state governments as described above in Chapter 1. However, a meaningful interim step would be to ensure Tribal access to lands of territorial affiliation currently administered by federal and state agencies by improving existing pathways, such as co-management agreements, 638 compacting and contracting, and the Good Neighbor Authority. While such programs are intended to facilitate greater Tribal access, Tribal decisionmaking over stewardship, and financial support to engage in Indigenous stewardship activities on federally administered lands, current iterations are incomplete and do not meet the true needs of Indian communities, as promised by the Indian Self-Determination and Education Assistance Act (ISDEAA).

### CO-MANAGEMENT AGREEMENTS

Co-management, when properly carried out, involves the formal acknowledgment of Tribal authority and/or the delegation of federal management authority over federally or state administered lands. Such action can "bring together the expertise of diverse perspectives to build a collective and participatory framework that can benefit everyone."[42] It is distinct from the federal government's current promotion of "co-stewardship," in which federal agencies retain all responsibility over "management," but

42 National Congress of American Indians Resolution #PDX-20-003, Calling for the Advancement of Meaningful Tribal Co-Management of Federal Lands.

"incorporate Tribal expertise and Indigenous Knowledge into Federal land and resources management" and "collaborate" with Tribes on activities that implement federal decisions.[43] In co-stewardship, Tribes are left subordinate to the federal government, acting through its agencies; only co-management acknowledges Tribes as a sovereign entity.

To address the wildfire crisis and to enable beneficial fire practices and Indigenous stewardship, federal and state agencies need the authority and capacity to enter into meaningful co-management agreements with Tribes.[44] Such authority should allow federal and state agencies to defer to Tribal decisionmaking regarding management of federal- and state-administered lands within Tribes' lands of territorial affiliation; create the enabling conditions needed for improved co-management and collaboration with Tribes; and build additional capacity in federal, state, and Tribal governments to develop, implement, and manage such agreements. These expanded authorities should be broad, allowing Tribes to take on management of entire programs of work, rather than limited to individual projects or discrete areas.

Additionally, to support these potential partnerships, agencies should invest training and resources into workforce development to ensure their staff are critically and creatively thinking about how to meaningfully partner with Tribes and empower Tribal stewardship and management. Where appropriate, agencies should develop template agreements that recognize Tribal sovereignty and self-governance concepts, while providing sufficient flexibility to accommodate individual Tribal preferences. Without such efforts in workforce development (including training as well as hiring and promotion criteria) and template creation, any new authorities are likely to be underutilized, and Tribes will continue to be let down by agency inaction.

## THE TRIBAL FOREST PROTECTION ACT AND 638 COMPACTING AND CONTRACTING

Other existing authorities have been modestly expanded to allow agencies to engage with Tribes on stewardship work on federally administered lands. These authorities serve as potential models on which to build additional options for Tribal management. For instance, the National Indian Forest Resource Management Act (NIFRMA) is intended to ensure the sustainable management of forest resources on Tribal trust lands. In 2004, NIFRMA was amended to include the Tribal Forest Protection Act (TFPA), which allows federal agencies to contract with Tribes to carry out hazardous fuels reduction and other forest health management activities on adjacent lands administered by federal agencies.[45] Through TFPA, a Tribe can propose stewardship contracting or other projects on Forest Service or Bureau of Land Management (BLM) lands adjacent to Tribal lands with the goal of reducing wildfire risk on federal lands that could threaten Tribal resources.

The Forest Service shares nearly 4,000 miles of common boundary with Tribal lands, and much of the National Forest System includes lands on which Tribes retain jurisdiction, rights, and interests, as described above. While the TFPA presents an important opportunity to increase the pace and scale of forest restoration and to protect Tribal resources and rights, it remains an underutilized authority. Barriers to more extensive use of the TFPA have been identified, including unclear federal policy guidance, frequent turnover by leadership and staff, uncertain funding, and a lack of federal understanding of government-to-government relationships and agency trust responsibilities to Tribes.[46]

To address these shortcomings, section 8703 of the 2018 Farm Bill expanded the Indian Self Determination and Education Assistance Act's (ISDEAA) "638 authority" to allow the Forest Service to contract to Tribes some of the activities needed to implement a TFPA project on

43 Joint Secretarial Order 3403, "Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters" (2021), available at https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3403-joint-secretarial-order-on-fulfilling-the-trust-responsibility-to-indian-tribes-in-the-stewardship-of-federal-lands-and-waters.pdf

44 *E.g.*, M. Mills & M. Nie, "Bridges to a New Era; A Report on the Past, Present, and Potential Future of Tribal Co-Management on Federal Public Lands." Margery Hunter Brown Indian Law Clinic/Bolle Center for People and Forests, University of Montana (2020). ("Although 638 contracts, self-governance compacting, and similar authorities have opened new avenues for tribes to take on greater (and previously federal) responsibilities, these avenues are mostly limited to existing tribal lands and resources and further hamstrung by a lack of federal funding, continuing agency recalcitrance, and the uncertainty around and inability of tribes to assume so-called 'inherently federal functions.'").

45 25 U.S.C. § 3115a.

46 Intertribal Timber Council, TFPA Analysis Report: "Fulfilling the Promise of the Tribal Forest Protection Act of 2004" (2013).

a demonstration basis.[47] Congress enacted ISDEAA in 1975 after finding that federal control of Indian service programs denied Tribes "an effective voice in the planning and implementation of programs for the benefit of Indians which are responsive to the true needs of Indian communities."[48] ISDEAA is intended to allow Tribes to assume control and implementation of federal programs affecting them through the use of "638 compacts" and "638 contracts." The specific grants of 638 authority, however, are limited to the programs, functions, and services provided by the Indian Health Service and the BIA, despite its stated intent to assure "maximum Indian participation in…Federal services" and to "permit an orderly transition from the Federal domination of programs for, and services to, Indians to effective and meaningful participation by the Indian people in the planning, conduct, and administration of those programs and services."[49]

The 2018 Farm Bill extended ISDEAA on a temporary basis to the Forest Service, allowing the agency to contract with Tribes to implement certain TFPA programs and projects. Eligible TFPA projects include those on federally administered lands adjacent to Tribal trust that (a) reduce a threat to Tribal trust land or Tribal communities; (b) involve restoration; (c) are not subject to certain conflicting agreements or contracts and (d) involves a feature or circumstance unique to the proposing Tribe (i.e., legal, cultural, archaeological, historical, or biological).[50] However, this authority has not yet been used to its full potential, in part because of a lack of dedicated funding and capacity commensurate with the stewardship need and in part because of the limitations on the types of work that could be contracted.

### GOOD NEIGHBOR AUTHORITY

Another potential model on which to build additional options for Tribal stewardship is the Good Neighbor Authority (GNA). The GNA authorizes states, local governments, and Tribes to complete restoration projects on federal land.[51] The GNA was permanently authorized in 2014, and it was extended to Tribes and counties through the 2018 Farm Bill. The GNA has two purposes: first, to accelerate landscape-scale restoration and second, to reduce the administrative and programmatic burden on the Forest Service and BLM when state, local, or Tribal governments are willing to take on the responsibility for overseeing these projects. The program has a specific focus on projects that can extend across jurisdictional boundaries.

The GNA authorizes non-federal entities to administer timber sales, provide National Environmental Policy Act (NEPA) support and planning, restore watersheds, and implement fuels management activities on federally administered lands. Prescribed fire is among the land management activities that may take place pursuant to these agreements, though the use of the GNA for prescribed fire activity has not been common. The 2018 Farm Bill also authorized states, but not Tribes or local governments, to collect the receipts of timber sales and use the money to fund additional GNA forest restoration projects.[52] The GNA does not come with dedicated federal funding; however, federal agencies may use funds generally available for stewardship and fuels management to support GNA contracts.

## RECOMMENDATIONS

### CO-MANAGEMENT

➤ **Recommendation 11.** Congress and the California Legislature should ensure that federal and state agencies have the authority, directive, and capacity to enter into more equitable and meaningful co-management agreements. Such agreements should include: mechanisms for agencies to share, defer, or transfer decisionmaking responsibility to Tribes for either individual projects, areas, or broader programs of work; mechanisms to ensure agency participation, including for dispute resolution if agencies and Tribes cannot agree; and sufficient funding to ensure that Tribes have capacity to both negotiate agreements and implement their provisions in the long term. Agencies should also ensure that the people tasked with negotiating such agreements have relevant expertise and authority to ensure that Tribal desires and concerns are appropriately addressed. Finally, templates should

47 25 U.S.C. § 3115b.

48 25 U.S.C. § 5301(a)(1).

49 25 U.S.C. § 5302.

50 25 U.S.C. § 3115a.

51 16 U.S.C. § 2113a.

52 Agriculture Improvement Act of 2018 (Farm Bill), P.L. 115-334.

be developed with language that recognizes and supports Tribal sovereignty. F S [53]

## 638 AUTHORITIES

- **Recommendation 12.** At a minimum, Congress should make permanent the TFPA pilot program enacted in the 2018 Farm Bill, which authorized the Forest Service to enter into 638 contracts with Tribes for TFPA projects. However, the additional recommendations below should be included before the program is permanently authorized. F
- **Recommendation 13.** Congress should advance the intent of ISDEAA by clearly enabling federal agencies that administer lands to enter into programmatic 638 compacts (under ISDEAA § 404) with Tribes in order to develop and implement programs of work for stewardship activities throughout Tribal lands of territorial affiliation. F
- **Recommendation 14.** Congress or federal agencies should clarify that prescribed fire and other stewardship activities are not "inherent federal functions" under ISDEAA (25 U.S.C. § 5361) and thus can be delegated to Tribes via 638 compacts. Some Forest Service and BIA personnel have taken the position that such activities are not eligible under current authorities, though the definition of "inherent federal function" is imprecise and interpreted differently across the country.[54] Congress should also clarify that inherent federal functions, such as NEPA compliance, do not apply to Tribal activities. F
- **Recommendation 15.** Congress should expand 638 contracting and compacting to apply across the whole of government, as originally intended in ISDEAA. This expansion should include, at a minimum, programs that affect Tribes within the USDA, the Department of Commerce (such as the National Marine Fisheries Service and the National Oceanic and Atmospheric Administration), the Environmental Protection Agency (such as Clean Air Act implementation), and non-BIA programs within the Department of Interior (such as the BLM). F

## THE GOOD NEIGHBOR AUTHORITY AND OTHER CONTRACTING AUTHORITIES

- **Recommendation 16.** Congress should amend the TFPA and GNA to prevent federal agencies from overly delaying their use. For instance, amendments could include time limits for agencies to support, deny, or express concerns with regard to specific projects; if the timelines are not met, the projects should be deemed approved. F
- **Recommendation 17.** Congress should amend the GNA to allow Tribes to retain timber receipts for their work on federally administered lands and to revise the restrictions on use of that retained income to ensure that Tribes can reinvest in Tribal programmatic capacity.[55] F
- **Recommendation 18.** Congress and the California Legislature should make contractual mechanisms (including grants, agreements, contracts, and compacts) easier to implement, and invest in the hiring of the additional federal and state staff necessary to support expanded contract processes. The goal should be to enable Tribes, non-governmental organizations, and other entities to more easily complete needed beneficial fire and other stewardship work on federal and state administered lands. To enable partners, contractors, and grantees to expand their workforce, funding provided through these mechanisms should be sustained and multi-year. Efforts should include sufficient levels of capacity funding for these entities to support the administration of all included activities. S F [56]

53 **Commission Recommendation 29**: Congress should ensure that federal agencies have the directive, capacity, and authority to enter into equitable and meaningful co-stewardship and co-management agreements for multijurisdictional lands, and to support Tribal self-governance in order to address wildfire risk reduction, management, and recovery, and to enable beneficial fire practices; **Commission Recommendation 30**: Congress should provide the U.S. Department of Agriculture stand-alone authorities to enter into co-management agreements with Tribes that would allow the Forest Service to share, defer or transfer decision-making authority with or to a Tribe or Tribes for management of Forest Service programs or activities. This recommendation would also implement NCAI Resolution PDX-20-003, Calling for the Advancement of Meaningful Tribal Co-Management of Federal Lands.

54 Assessment of Indian Forests and Forest Management in the United States (2023) ("IFMAT IV"), at 121.

55 See further discussion in Chapter 3.

56 Part of **Commission Recommendation 90**: Improve the contracts, grants and agreements process and expand investments in the non-federal workforce.



## CHAPTER 3: BUILDING REGENERATIVE TRIBAL ECONOMIC SYSTEMS

While some Tribes have access to significant revenue from gaming and other economic development enterprises, most Tribes struggle to fund basic governmental services and activities. Unlike federal, state, or municipal governments, Tribes have very limited authority to levy taxes or issue bonds to raise revenue. For instance, the Karuk Tribe funds most of its Indigenous stewardship work through federal appropriations (including 638 compact dollars), grants, and private philanthropy. These funding sources are frequently short-term and often come with significant reporting requirements and restrictions on use.

As a result, it is difficult to build the long-term, sustainable systems and workforces necessary to restore landscape function and right the injustices of territorial occupation, genocide, and the purported criminalization of cultural practices, and to fully realize Indigenous stewardship goals, which benefit both Tribal and non-Tribal communities alike.[57] Any effort to support and expand the Tribal use of beneficial fire must also address these economic barriers.

Regenerative economic systems are built on the concept that Tribal programs can and should eventually become self-sustaining, while Tribal administration of federal programs achieves increased flexibility, stability, and reliability. Instead of near complete dependence on a linear system in which Tribes must receive and exhaust funding repeatedly, a regenerative economic system would follow an endowment model, where all sources of income under Tribal management can be used to address Tribal priorities or can be invested and provide cash flow over time. In such a system, funding is not always used to fund program activity, but instead can be invested under the direction of Tribal leadership to generate interest or returns on investment. This amount can then fund Indigenous stewardship activities without draining the

57 Fully implementing the specific recommendations in this Chapter on economic systems is therefore necessary to carry out **Commission Recommendation 140**: When authorizing and funding programs related to wildfire, Congress should directly recognize the historic role and continued importance of Indigenous stewardship related to fire.

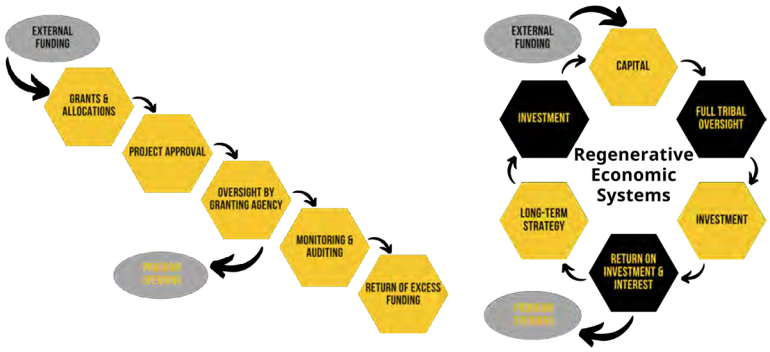



**FIGURE 3 . EXISTING TRIBAL STEWARDSHIP FUNDING MODELS VS. REGENERATING ECONOMIC SYSTEMS.** Current funding models constrain the ability of Tribes to grow stewardship programs and develop self-sustaining programming. In contrast, regenerative economic systems are centered upon Tribal leadership and authority over how funds are saved, spent, or invested. Program spending is no longer linearly received and exhausted, but used to produce revenue and generate interest to provide a consistent and independent source of funding for Tribal programs

capital investment. Returns or interest that are not used to support current programs may be reinvested, so that the capital investment grows and can be used to build Tribal program capacity over time.

Endowment models are common in nonprofit, academic, and government economic systems. Coast Funds is a Canadian non-profit national endowment which manages $118 million in funding from 6 private foundations, the Province of British Columbia, and the Government of Canada to fund grants to First Nations specifically for the purposes of Indigenous stewardship. Income generated by the fund is allocated annually to participating Nations for eligible conservation projects based on each First Nation's original funding allocation and the investment performance of the fund. A similar model in the United States for Indigenous stewardship—especially if managed at the regional scale—could provide Tribes with long-term stability, broader decision-making authority over spending, and a significant reduction in paperwork and reporting requirements.

Without major changes to the way the federal government distributes funds to Tribes for Indigenous stewardship activities, Tribes cannot build up sufficient capital to develop regenerative economic systems. This issue must be addressed to allow true Tribal self-sufficiency and to create procedural ease in moving toward increased Tribal administration of federal programs as well.

Tribes are not the only entities that require economic investment. Most beneficial fire and stewardship programs are not revenue neutral, and instead require steady investment of state and federal dollars. Community-based non-governmental organizations are well positioned to help expand beneficial fire use, but only with ongoing financial support. Restrictions on use of these dollars can also create unintended inefficiencies.

### BARRIER: Existing Funding Sources Do Not Allow Tribes to Build Regenerative Economic Systems.

To complete stewardship work, Tribes primarily rely on allocations or grant funds committed to specific purposes. If Tribes spend less than anticipated due to cost savings measures or efficiencies gained, they generally must return unused funds to the granting entity at the conclusion of the specified project, and funds cannot be re-appropriated for other uses. Likewise, any income generated by Tribal projects funded by federal grants typically must be used to support the specific project described in the grant application *and* be used before the end of the specified grant period. If and when Tribes are able to retain funds earned through an income-generating activity, they are often required to hold them in non-interest-bearing accounts, with significant stipulations about how the money is to be spent and by when.[58] These cumulative limitations prevent Tribes from taking advantage of economic efficiencies or revenue generating efforts.

58 *See, e.g.*, 45 C.F.R. § 75.442.

This system is fundamentally incompatible with the concept of Tribal sovereignty, as implementation of Tribal policies and priorities via this process is heavily dependent on funder priorities, review, and approval (whether that is federal, private, state, or otherwise). Reliance on project-based grant funding in particular makes it difficult for Tribes to build stability and reclaim self-sufficiency. Developing a stable, skilled Indigenous stewardship workforce, for example, is challenging based on a system of project-based funding, given that positions cannot be guaranteed beyond the timeline of a given project (often 1-2 years). Members of the local Tribal community may be unable to accept the instability of project-based, grant-funded positions, making it difficult to attract and retain a skilled Tribal workforce, while also creating challenges for Tribes seeking to offer training and build institutional knowledge. The accumulation of institutional knowledge, local workforce capacity, and financial resources over time is difficult within this funding paradigm, and thus, program growth commensurate with need is unlikely. This is a systemic issue, and one that must be addressed through systems-level solutions.

## RECOMMENDATIONS

➤ **Recommendation 19.** Congress and the California Legislature should provide federal and state funding to establish and build regenerative economic systems, such as place-based, Tribal endowments for the purpose of Indigenous stewardship. Once funded, the endowments can be invested, with returns used by Tribes to perpetually fund their own stewardship activities. Endowment management could be supported by community foundations or other non-profit entities or managed by Tribes for community purposes. Funding for place-based Tribal endowments could come from multiple sources, so long as Tribes can retain such funding as principle and spend interests and returns according to Tribal priorities and directives. S F [59] These could include:

- A Marshall Plan-like investment in Tribal communities from the federal government, intended to stabilize Tribal communities and their workforces in the era of climate change and increasing wildfire threats. Such an investment would recognize the important leadership roles Tribal communities and Indigenous stewardship can play in addressing these joint threats, as well as the historic injustices that have taken Tribal people from their lands and waters. F
- Unspent dollars allocated to federal or state agencies or granting institutions to plan or implement natural resources management activities and other similar work could be re-routed to Tribes using a funding distribution mechanism designed specifically to build these endowment funds. S F
- A fixed percentage of receipts derived from timber and other restoration byproducts sold by third parties within the lands of territorial affiliation of the Tribe could be allocated to Tribes. F
- Endowment sharing from land grant and other universities, who established and grew their own endowments based on land theft from Tribes (see Chapter 3 for additional details). F

➤ **Recommendation 20.** Congress and the California Legislature should also create tax or other incentives for philanthropic or other private contributions to such place-based, Tribal endowments. S F [60]

➤ **Recommendation 21.** Once established, ensure that the existence of place-based, Tribal endowments does not adversely impact the availability of other funding for Tribes. This recommendation is intended to be additive, rather than simply shifting available money to a different form. S F

### BARRIER: Existing Systems Are Underfunded and Cumbersome to Administer.

Congress has created some mechanisms intended to fund Tribal beneficial fire programs and other Indigenous stewardship activities. However, available funding is not nearly commensurate with need, and often doesn't account for the baseline funding needed to hire staff, operate an office, and manage complex federal, state, and private funding opportunities.[61] It also requires Tribes to piece together funding dollars from many different sources—including different programs within the federal government—requiring development of significant administrative and financial management capacity just to manage the programs.

Tribal funding availability varies depending on whether Tribes have assumed responsibilities for federal programs under 638 contracts or compacts or the Indian Trust Asset

59 **Commission Recommendation 127**: Congress should provide direct funding to Tribes for capacity for consultation, coordination, co-stewardship, and co-management, and should establish flexible, reliable, and regenerative funding mechanisms and processes.

60 Tax incentives to encourage private philanthropy toward Tribes could be one way to implement **Commission Recommendation 134**: Congress should incentivize state, local, and Tribal government development of dedicated revenue streams to support wildfire mitigation and management....

61 IFMAT IV, at 3-4.

Reform Act (ITARA). Under these programs, funding is requested by the BIA through the "Greenbook" process (i.e., the congressional budget justification document) to enable participating Tribes to effectively manage the compacted or contracted programs and projects. However, these self-governance compacts and contracted programs are notoriously underfunded. For instance, funding for Tribal forestry programs, on a per-acre basis, has declined by almost 36% over the last 30 years.[62] More than half of Tribes interviewed for the 2023 Assessment of Indian Forests and Forest Management in the United States (IFMAT IV) reported that they were not receiving the minimum recurring funding necessary to staff their forestry programs, as mandated under federal law.[63] And Tribal forestry programs receive significantly less funding than the Forest Service or the BLM for comparable lands.[64] As a result, Tribes have become increasingly reliant on outside, non-recurring grants from agencies, NGOs, and private foundations.

Moreover, even when existing programs are adequately funded, they are not working as well as intended because of the restrictions placed on use of the funding. While the need for some oversight is understood, funding programs continue to be established based on paternalistic ideas that Tribes are ill-equipped to plan for, steward, and expend resources. These restrictions have limited the amount of work that Tribes can achieve, and have forced Tribes to spend more time on paperwork, documentation, and reporting rather than on implementation of on-the-ground work.

## RECOMMENDATIONS

➤ **Recommendation 22.** Congress and the California Legislature should provide significant, targeted funding to Tribes to support their baseline capacity as well as to expand training opportunities, beneficial fire programs, and Indigenous stewardship work. S F [65]

Some specific ideas include:

- Enable Tribes to request adequate federal funding for 638 contracts and compacts. Currently, the BIA requests funding through the Greenbook process on behalf of Tribes; this mechanism has led to chronic underfunding. Tribes should be able to request and justify specific funding amounts, including for self-governance shares, existing budget line items, and new priorities. Compact amounts should be based on the amount of need, rather than the relative number of acres held in trust, due to the jurisdictional complexity of many Tribes' lands of territorial affiliation as mentioned above. Many Tribes manage and steward landscapes that are a patchwork of land ownership and jurisdiction, not just those held in trust. F [66]
- Congress should create dedicated funding and capacity for 638 contracting under ISDEAA on TFPA-eligible lands sufficient to meet the stewardship need. F
- Congress should create a designated funding source associated with the GNA to enable Tribal participation, rather than requiring Tribes to come up with non-federal funds. F
- The BIA should recognize wildfire mitigation activities, including fuel reduction, beneficial fire, and Indigenous stewardship, as part of wildfire management. Tribes should be able to request funding or personnel to address these activities as part of wildfire management dollars. F [67]
- The California Legislature should continue to expand the availability of state funding for Indigenous stewardship, including the potential for recurring, non-competitive funding. S

➤ **Recommendation 23.** Congress, the California Legislature, and agencies should evaluate existing Tribal funding programs to determine how to eliminate unnecessary use restrictions or administrative requirements and to enable the development of regenerative economic systems. Overall, Congress should identify more ways to increase the amount of recurring, compact dollars flowing through the BIA to Tribes for use on multi-jurisdictional lands, rather than creating one-off grants or funds administered by other agencies. Increases to one Tribe or program should not result in decreases in other programs. S F

Some specific ideas include:

62 IFMAT IV, at 55.

63 IFMAT IV, at 57.

64 IFMAT IV, at 75.

65 **Commission Recommendation 128**: To ensure Tribes have adequate base funding and staffing to accomplish management goals on Tribal lands, Congress should consider the results of the Indian Forest Management Assessment and National Congress of American Indians Resolutions when creating new laws, regulations, or other authorities.

66 Part of **Commission Recommendation 92**: Tribes should be supported to expand mitigation, response, and restoration workforces.

67 Part of **Commission Recommendation 92**: Tribes should be supported to expand mitigation, response, and restoration workforces.



- Increase funding for the BIA's Fish, Wildlife, and Parks programs, which can be used by Tribes to complete work on lands administered by other agencies. F
- The Reserved Treaty Rights Lands Program provides BIA funding to Tribes to support their participation in collaborative fuels management projects to protect priority Tribal natural resources that are at high risk from wildfire. However, this program has been significantly underutilized, accounting for less than 0.05 percent of the Department of Interior's 2020 fuels treatment program budget.[68] Congress should make the Reserved Treaty Rights Lands Program a recurring program to enable Tribes to use a 638 compact to manage its implementation. By allowing use of the 638 self-governance program, Tribes could enter into multi-year funding agreements, with Federal Tort Claims Act coverage and baseline programmatic support. F
- The National Indian Forest Resource Management Act authorizes federal funds to be used for land management activities on certain lands through Indian Forest Land Assistance (IFLA) accounts, which can be interest-bearing and allow some degree of flexibility. However, they are currently limited to use on "Indian forest lands"[69] – i.e., those lands held in trust or owned by Tribes. Congress should amend this provision to (i) allow IFLA accounts to be used to implement stewardship activities across jurisdictions (i.e., "forest land management activities on *or for the benefit of Indian forest lands, territories or resources of such tribes*"); (ii) allow program income from projects to be deposited into IFLA accounts for use on other Indigenous stewardship projects; and (iii) provide that interest generated in such accounts can be used to build separate and distinct Tribal programs. F
- The GNA authorizes states, local governments, and Tribes to administer timber sales, provide NEPA support and planning, restore watersheds, and practice fuels management. States, but not Tribes or local governments, are authorized to collect the receipts of timber sales and use the money to fund additional forest restoration projects.[70] Congress should allow Tribes to retain timber receipts when using the Good Neighbor Authority or other similar authorities to work on federally administered lands, and relax the restrictions on use of that retained income to ensure that Tribes can reinvest such funding for long-term programmatic capacity or for Tribal stewardship work. F
- Many federal and state programs prohibit or limit Tribes from using natural resources removed from

68 G. Russell, et al., Rocky Mountain Research Station, "Doing work on the land of our ancestors: Reserved treat rights lands collaborations in the American Southwest." Fire (2021).

69 25 U.S.C. § 3109(b)(1)(D).

70 Agriculture Improvement Act of 2018 (Farm Bill), P.L. 115-334.

federally or state administered lands as part of Indigenous stewardship activities for commercial purposes. This restriction should be relaxed for Tribal projects, especially given the long history of commercial use of federally administered lands by private entities. Alternately, the limitations should be revised to consider traditional practices of barter, sale, and trade of traditional artwork and goods. Congress and the California Legislature should ensure that prohibitions on "commercial" use do not prohibit such traditional activities.[71] S F

- The Office of Management and Budget (OMB) should modify its regulations to ensure that program income generated by Tribes is added to federal awards. One mechanism to achieve this would be to modify 2 C.F.R. section 200.307(e) to add Tribes to the list of institutions that automatically qualify for additive treatment (i.e., where program income can be added to the available funds). OMB should also make explicit that program income may be used after the end of the period of performance and can be invested or held in interest-bearing accounts to build long-term sustainability for Tribal programs. F

### BARRIER: Tribes Are Asked to Provide Work to Agencies Without Pay.

A variety of federal and state statutes and executive orders call on federal and state agencies to consult with Tribes on proposed agency actions. Other policies require agencies to consider information about Tribal cultural resources and Indigenous Knowledge when making federal decisions. These activities not only benefit Tribes and their resources but also serve to improve the outcome of state and federal decisionmaking. However, Tribes and their members are rarely reimbursed for these activities and are often left scrambling to develop sufficient capacity to respond to the numerous requests for consultation, site visits, and sharing of Indigenous Knowledge. This lack of support often makes it difficult for Tribes to adequately protect their interests in a variety of venues, but also makes it difficult for agencies to complete their required analyses in a timely manner. To truly meet their trust and other responsibilities to Tribes, agencies must provide financial support for such work—upfront, and with minimal administrative burden. This is not only the right thing to do but will also help improve agency decision-making processes.

Given that many Tribes rely extensively on grant funding with short timelines, a Tribe may not be able to take on additional funding for a last-minute consultation request. Funding should be provided on an annual or multi-year basis via one centralized mechanism through the BIA, such as a 638 compact authority and as part of the Greenbook process. This would allow Tribes to budget for and build this capacity in a sustainable way.

### RECOMMENDATIONS

- **Recommendation 24.** Congress, the California Legislature, and agencies should provide direct funding for Tribal capacity to ensure adequate consultation and coordination with Tribes. Such funding should enable and promote the revitalization of Indigenous stewardship, resulting in improved fire regimes and forest health conditions throughout multijurisdictional landscapes. S F [72]
- **Recommendation 25.** Congress and the California Legislature should ensure that agencies pay cultural fire practitioners and other IKPBS keepers when they assist with agency planning and implementation and ensure that this information is not co-opted or used to preclude the revitalization of Indigenous stewardship to the maximum extent possible. This may involve complying with the Tribal Indigenous Knowledge and data sovereignty protection processes, polices, and protocols and/or agreements of individual Tribes. S F

### BARRIER: Non-Governmental Organizations Also Face Funding Challenges.

Numerous studies have acknowledged the important role that non-governmental organizations and actors (such as non-profit organizations, prescribed burn associations, and private landowners) must play in addressing the wildfire crisis.[73] Indeed, many of these non-governmental organizations serve as critical partners to Tribes and cultural fire practitioners, providing flexibility, capacity, and financial support when such items have been unavailable to Tribes. Such organizations have also obtained permits or entered into contracts with federal or state agencies for Tribally led burns, when such actions would be inconsistent with Tribal sovereignty if undertaken by the Tribe itself. However, these organizations also face funding challenges.

71 The definition of non-commercial traditional use found in Forest Service Region 5's Traditional Gathering Policy may serve as a useful example. (Note, however, that the Policy's discretionary process for granting use permits for gathering is an infringement on Tribal rights, so it should not be adopted in full).

72 **Commission Recommendation 127**: Congress should provide direct funding to Tribes for capacity for consultation, coordination, co-stewardship, and co-management.

73 Commission Report at 170; California's Strategic Plan to Expand the Use of Beneficial Fire at 5 (2022).

Specifically, funding is needed to purchase equipment, engage personnel (especially highly skilled personnel, including burn bosses), provide adequate training, complete environmental review, prepare burn and smoke plans, obtain necessary permits, and secure insurance. These can still be quite significant, especially as the need for burning across larger landscapes continues to increase, and the complexity and challenges associated with prescribed burning increase the longer we keep fire out of fire adapted landscapes. Indeed, nearly half of the organizations included in the Watershed Research and Training Center's recent Investment Opportunities report indicate that "inadequate amounts of funding for forest and/or fire projects, programs, and work was one of their top three barriers to this work."[74] Unfortunately, funneling funding through state and federal agencies (such as CAL FIRE) can create new barriers for private burners due to requirements like compliance under the California Environmental Quality Act (CEQA).

While reorienting the state and federal fire workforce towards beneficial fire use is essential, and Tribal funding challenges deserve special attention due to the critical role Tribes have as leaders in the revitalization of fire practice, it is also crucial to set aside dedicated funding to support private burners.

## RECOMMENDATIONS

- **Recommendation 26.** Congress and the California Legislature should provide significant funding to non-profit organizations and landowners to implement prescribed fire and increase local capacity, while working to ensure that administrative costs and burdens associated with such funding are minimized. Funding programs should ensure that all categories of costs identified above can be covered. S F
- **Recommendation 27.** State funding should be directed through agencies prepared to handle streamlined CEQA compliance (such as Resource Conservation Districts) or through other creative mechanisms. S

74 The Watershed Research and Training Center, "Investment Opportunities for Increasing Forest and Fire Management Capacity in California" (January 2020).



## CHAPTER 4: IMPROVING TRIBAL-AGENCY RELATIONSHIPS

As discussed throughout *Good Fire II*, navigating state and federal law to implement beneficial fire is complex. These issues are compounded for Tribes and cultural fire practitioners engaged in this work, given the historical and legal complexities surrounding jurisdiction, land tenure, Tribal rights, sovereign immunity, federal recognition, state/Tribal relationships, and cultural practices, as well as the generations of trauma caused by state and federal attempts to forcibly terminate both Tribes and Indigenous stewardship practices. Cultural fire practitioners repeatedly indicate that agency staff members are ill-equipped to handle these complexities, leading to delays, increased costs, foregone opportunities, and a lack of appropriate respect.

**BARRIER: Agency Staff Are Poorly Trained in Working with Tribes and Cultural Fire Practitioners.**

While agency staff are required to meet certain criteria for hiring and promotion, and engage in on-the-job training in other areas, these efforts are either not focused on or not consistently resulting in staff that are capable of working with Tribes in ways that are effective or respectful. Some of the reported issues include:

- On lands of territorial affiliation that include overlapping Tribal, state, and federal jurisdictions and a mosaic of land tenure, state and federal agencies "trade responsibility and blame" for addressing Tribal concerns. Instead of owning particular issues and working with Tribes to address them, agencies such as the BIA, the U.S. Forest Service, and CAL FIRE each assert that the responsibility and blame fall on the other agencies. As a result, little is accomplished.
- Federal and state authorities have difficulty understanding differences between Tribes and cultural fire practitioners. In California, cultural fire practitioners may come from federally recognized Tribes, California Native American Tribes, or non-recognized Tribes. Cultural fire practitioners may also choose to operate out of non-profit organizations, such as the Cultural Fire Management Council. These complexities create tension when there is a desire to define which people are afforded access to Tribal programs, funding, or rights.

- Agency staff, including agency attorneys, often have no formal Indian law or cultural competency training. Consequently, Tribes and cultural fire practitioners may need to spend significant time educating agency staff about Tribal sovereignty and other aspects of Indian law.
- Conversely, the BIA is generally well-versed in Indian law and other Tribal-specific issues. However, Tribes and cultural fire practitioners report that BIA staff has little knowledge or comfort with cultural fire or other Tribal activities outside of their purview, or may know relatively little about Tribal-specific issues, so BIA staff serves as an active impediment to navigating these complexities with other agencies.
- Agency staff turnover is high. Tribes will invest significant time and resources into educating agency staff about Tribal histories, rights, responsibilities, projects, and goals. When those staff move on, they often take much of that knowledge with them, requiring Tribes to start fresh with each turnover. This is costly for Tribes in time, resources, and capacity, and can lead to burnout.
- Agency staff are often unwilling to take risks, think creatively, or find new solutions. Cultural factors within agencies tend to favor preservation of the status quo rather than addressing needed changes.
- Without knowledgeable and motivated agency partners, who are empowered to support Tribal sovereignty and the best interest of Tribes, Tribes and cultural fire practitioners report that they will continue to face difficulties in implementing and expanding the use of cultural burning and other Indigenous stewardship practices.

## RECOMMENDATIONS

- **Recommendation 28.** Agencies should prioritize hiring staff who are trained and competent in collaborating with Tribes and Indigenous peoples and willing to usher in a new paradigm of Tribal relationship building. This should be included as a part of the criteria used for hiring and promotions. Within each agency (e.g., Natural Resources Agency, CAL FIRE, California State Parks, U.S. Forest Service, BIA, National Park Service, Natural Resources Conservation Service, U.S. Fish and Wildlife), ensure that there is at least one person per region that both understands the complexities discussed above at a high level, and is motivated and empowered to coordinate with and support Tribes in their efforts to revitalize cultural burning and Indigenous stewardship. Native Americans should be hired for such positions whenever feasible. In addition, agencies should require training in Tribal law, history, and culture for all employees. S F [75]
- **Recommendation 29.** Congress, the California Legislature, and state and federal administrations should prioritize the creation of systems of knowledge-sharing that allow for the preservation of knowledge within and across agencies, and that promotes the cultural change needed within federal and state governments to raise the standard of treatment of these sovereign-to-sovereign relationships. Tribal relationships must be respected in a manner analogous to the treatment of state governments and those of other countries, wherein development of deep knowledge is expected prior to engaging. Stewarding these sovereign-to-sovereign relationships demands a high standard of conduct and a high degree of respect that is not currently demonstrated by the lack of shared understanding and knowledge across agencies. S F

### BARRIER: Obtaining Indigenous Knowledge Without Sharing Decisionmaking Can Amount to Appropriation.

On November 15, 2021, the federal Office of Science and Technology Policy and the Council on Environmental Policy released a memorandum entitled "Indigenous Traditional Ecological Knowledge and Federal Decision Making," elevating the treatment of Indigenous Knowledge to be co-equal to Western scientific knowledge, and calling on Indigenous Knowledge to inform federal decision making.[76] Further, on November 30, 2022, they issued guidance to all federal agencies on how to do so.[77] Likewise, California has elevated Indigenous Knowledge in certain aspects of its decisionmaking, especially around the protection of Tribal cultural resources.[78]

While these recognitions of Indigenous Knowledge are essential and important, they also bring the risk of appropriation. In this context, appropriation means the

75 **Commission Recommendation 96**: Ensure that fire mitigation and management personnel are trained in and respectful of Tribal sovereignty and cultural practices.

76 E. Lander, President's Science Advisor and Director, Office of Science and Technology Policy "Indigenous Traditional Ecological Knowledge and Federal Decisionmaking" (November 2021) available at https://www.whitehouse.gov/wp-content/uploads/2021/11/111521-OSTP-CEQ-ITEK-Memo.pdf.

77 A. Prabhakar, Assistant to the President and Director, Office of Science and Technology Policy, "Guidance for Federal Departments and Agencies on Indigenous Knowledge" (November 2022) available at https://www.whitehouse.gov/wp-content/uploads/2022/12/OSTP-CEQ-IK-Guidance.pdf.

78 Health & Saf. Code § 8012(k); AB 52 (2014), § 1(b)(4).

use of Indigenous Knowledge by non-Tribal people for their own purposes, without the protection of and the consent or leadership of the source of that Indigenous Knowledge. This can also result in Indigenous Knowledge being used outside of its proper context. Avoiding appropriation is best achieved by ensuring that Tribes and cultural practitioners are directly involved in or responsible for the decisions that rely on use of IKPBS. Care must also be taken to ensure the confidentiality and non-disclosure of Indigenous Knowledge when such confidentiality is requested by a Tribe or knowledge bearer. As described above, many Tribes are currently developing Indigenous Knowledge and data sovereignty protection processes, polices, and protocols and/or agreements. While these are not all yet fully formulated, it is important that agency staff inquire about their existence and comply with any such policies, protocols, and agreements. This may also require agencies to modify or amend their own such policies and procedures.

## RECOMMENDATIONS

- **Recommendation 30.** Agencies should ensure that Indigenous Knowledge is requested and used only in the context of shared decisionmaking, including through co-management agreements and other mechanisms in which agencies share, defer, or transfer decisionmaking authority to Tribes. S F
- **Recommendation 31.** Congress and the California Legislature should ensure that Indigenous Knowledge shared with agencies is adequately protected from disclosure, including the creation of exceptions from the federal Freedom of Information Act and the California Public Records Act. Likewise, agencies should seek to implement co-stewardship and co-management agreements in ways that protect Tribal data sovereignty. S F [79]

### BARRIER: Increased Use of Remote Sensing Technology Threatens Indigenous Fire Use.

Efforts are ramping up to use satellite, LIDAR, and other remote sensing technologies to quickly detect fire ignitions, especially in remote locations. For example, the National Guard's "FireGuard" program, which operates in conjunction with the National Geospatial-Intelligence Agency's (NGIA) "Firefly" capability, offers overhead visualization of initial detections on wildfires, especially in remote locations and off hours. NGIA is a federal agency; as such, Congress has control over the manner in which it operates and uses the information it gathers.

Without coordination, such initial detections efforts may result in deployment of investigation and suppression resources to ceremonial fire, cultural burns, and prescribed burns. Such a reaction would be particularly problematic for ceremonial fire use by Tribes, which can require privacy and a controlled environment.

## RECOMMENDATIONS

- **Recommendation 32.** Congress and the California Legislature should require agencies and entities gathering ignition data, receiving fire occurrence reports, and providing dispatch information to enter into agreements with Tribes to protect the privacy and confidentiality of ceremonial and other fire use, and prevent unnecessary deployment of suppression resources. Likewise, the federal government should also explore options to ensure that state, local, and private remote detection systems do not infringe on the religious, ceremonial, programmatic, and cultural practices of Tribes. S F [80]

79 **Commission Recommendation 115**: Congress should consider the Forest Service Culture and Heritage Cooperation Authority as a baseline for expanded Tribal data sovereignty and FOIA exemptions for Indigenous Knowledge.

80 **Commission Recommendation 119**: Upon the request of Tribes, entities gathering data and providing dispatch information regarding fire ignitions should have the authority to enter into agreements with such Tribes to protect the privacy and confidentiality of ceremonial and other fire use.



## CHAPTER 5: INDIGENOUS-LED FIRE REGIME MANAGEMENT

To address the wildfire crisis, increased beneficial fire use must come hand-in-hand with a fundamental shift in how we think about wildfire management, requiring a shift away from fire exclusion and toward socio-ecological resilience. Critical to this shift will be the adoption of a holistic approach to fire management that considers long-term community health and ecological function objectives alongside short-term public safety concerns. Such an approach is inherent in Indigenous fire management, and this is one of the reasons why Indigenous leadership to restore our human relationship with fire is so vital in addressing the wildfire crisis of today.

Fire is a natural and often necessary component of forest ecology, as many wildlands are historically adapted to the cyclical application of fire and depend on it for propagation, nutrient cycling, pest and disease regulation/management, and other benefits. Indigenous peoples use fire at varying scales to shape vegetation in the landscape to create more fire-resistant ecosystems and mitigate the impacts from wildfires and climate variability. In addition to promoting ecosystem function, the use of fire has long been an important cultural element sustaining traditional ways of life, from ceremonial use to supporting food cultivation and providing forage to deer and elk, to improving watersheds and wildlife habitat, to protecting homes and communities.

Non-Indigenous settlers established a very different way of using the forests and a very different relationship with fire in the western United States. With the expansion of timber and mining industries came the widespread view of fire as an economic threat. Federal and state governments forced Indigenous peoples off of most of their ancestral territories and homelands, repressing Tribal use of fire in addition to suppressing naturally ignited fires. California attempted to criminalize Indigenous cultural burning and lack of diligence in suppressing other fires.[81]

The origins of modern-day wildfire governance in the United States date back to the early twentieth century, as exemplified by the passage of the Weeks Act of 1911.[82]

81 The Act for the Government and Protection of Indians (AB 129, 1850).

82 36 Stat. 961.

The Weeks Act provided the federal government with the authority to enter into agreements with state governments to manage wildfires within their states following the development of fire protection plans and programs. By delegating authority to states to implement these fire management plans, the Weeks Act prioritized state-led decision making on issues of wildfire management. Because many Tribal communities never ceded their right to manage fire throughout their lands of territorial affiliation, state fire management plans along with federal coordination with them infringe on Tribal jurisdictional authority and cultural autonomy. The legacy of the Weeks Act in contemporary wildfire management remains salient, particularly as it relates to the marginalization and lack of acknowledgement of Tribal authority and the lack of equitable engagement of Tribes in fire management.

Moreover, this framework for fire management largely neglects the critical role that IKPBS play in effectively mitigating, preparing for, and adapting to the growing impacts of increasingly severe wildfire seasons. The exclusion of Tribal leadership from the current fire management regime has led to misguided attempts to pursue complete or near complete fire exclusion. A holistic understanding of fire management, on the other hand, acknowledges fire as an integral and unavoidable component of healthy human and ecological systems. The role of humans, then, is to determine when and how fire is applied, managed, and restored, not whether it occurs at all.

For example, a holistic view of fire management would require consideration of the overall fire regime. If high temperatures or other conditions require an immediate suppression response, fire management activities should not end once the fire is contained. Areas adjacent to where fire has been suppressed may be particularly vulnerable to high-severity fires in the future without a fire management strategy that considers cumulative and deferred risk.

Once a fire has been suppressed, its ecological function to reduce and manage fuels and otherwise affect the landscape will not have been achieved in unburned areas. Instead of ending at containment, response strategies involving continued management of the fire event can help to ensure healthy fire regimes and reduce long-term risks and costs. Such a change would properly recognize that the *ignition* is not the critical "event" in how fire affects a landscape; rather, the critical event is the restoration of fire at the appropriate interval within the regime.

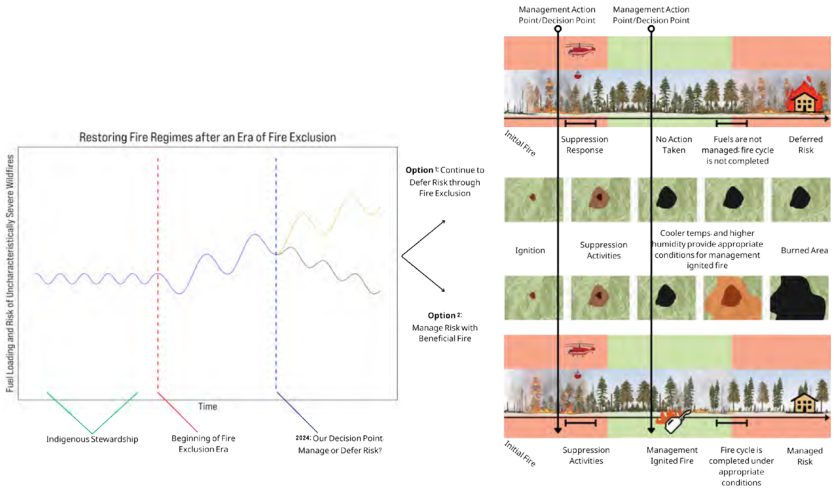



**FIGURE 4. We Have a Choice Between Deferring or Managing Our Wildfire Risk. Which Option Will We Choose?** We expand on Figure 1 to paint a further picture of our current options. In Option 1, which is the current fire suppression scenario, fire management activities conclude with the initial suppression response, continuing to defer risk, which inevitably results in higher risk of uncharacteristically severe wildfire. In Option 2, more in line with Indigenous fire management paradigms, fire management activities continue after the initial suppression response. When conditions are favorable, good fire is applied to the area to limit the continued accumulation of fuels and reduce future fire risk, using control features such as ridges, rivers, and roads to manage the spread of the burn, protect sensitive areas and values, and support healthy ecosystems.

For instance, when the likelihood of fire spread is again low (i.e., as signified by an energy release component (ERC)[83] that is low or decreasing, typically in the shoulder season following the initial wildfire event), management-ignited fire should be safely resumed to complete the fire cycle in areas that likely would have burned, however this time under more appropriate conditions as shown in Figure 5. This managed use of wildfire during more favorable conditions (including, but not limited to, rain, shorter burn periods, cool nights, or higher humidity) can ensure that burns are low to moderate intensity and confined to reasonable features for maximum long-term benefit to ecological systems and public health and safety.

Expanding the use of management-ignited fire throughout the fire year can be a critical way to restore healthy fire regimes and prevent catastrophic fires from occurring or reoccurring in the area of a suppressed fire interval. This delayed use of management-ignited fire should be considered an extension of the response to the initial wildfire, similar to the use of backfire or burnout to manage the spread of a burn as part of any confinement strategy employed on an incident. Reinstating the natural fire regime within the projected extent of an originally suppressed ignition in order to restore and maintain healthy forest ecological processes is likely one of our most valuable tools to minimize risk of high-severity wildfire in the future.

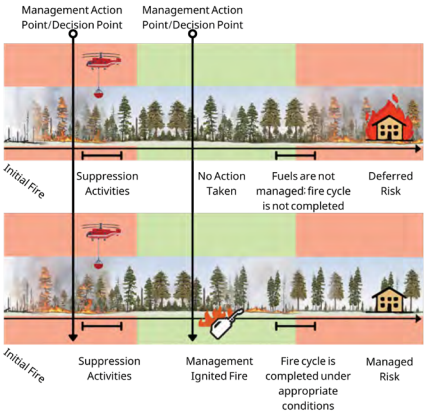



**FIGURE 5. Choosing Option 2: Managing Risk through Management-Ignited Fire.** Concluding fire management activities with the initial suppression response continues to defer risk, resulting in the risk of uncharacteristically severe wildfire. Management ignited fire is one way to manage risk and mitigate fuel accumulation. When the likelihood of fire spread is low (shown here as "green" conditions, perhaps a low or decreasing ERC), management-ignited fire can be used to manage this risk.

Applying a holistic and nuanced view of fire management, which is inherent to Indigenous fire management systems, also makes visible potential human and environmental health benefits previously obscured by narratives supporting fire exclusion. For example, the use of fire as a mitigation measure has proven necessary for species survival in certain cases, such as when riverine systems experience high temperatures lethal for aquatic populations. In such cases, nearby fires can provide temporary relief, through smoke shading and reduction of vegetation moisture uptake. Together, these effects lower river temperature and prevent further die-off. This practice has long been known by Indigenous peoples. Just as smoke may help protect fish populations during extreme temperature events, in return, the consumption of certain fish like salmon can help protect human populations by providing a host of health benefits—including protection against cardiovascular diseases, some of which can be exacerbated by smoke exposure. A holistic, Indigenous-led approach to fire management can prove critical in mitigating the impacts of climate change, in addition to promoting mental and physical health through a return to traditional cultural practices.

## BARRIER: Fire Management Is Largely Centered on Suppression Activities by State and Federal Agencies.

The Forest Service currently appropriates about 30 percent of its total budget to wildland fire management but only 3 percent to beneficial fire, and average annual spending on fire suppression has more than tripled in the last three decades.[84] For Fiscal Year 2024, the Forest Service requested $1 billion for wildfire suppression operations in addition to the $2 billion made available annually through the "wildfire funding fix," compared to just over $300 million requested for stewardship and restoration activities.[85] Likewise, most of CAL FIRE's budget—$3.3 billion

83 ERC is a calculated output of the National Fire Danger Rating System (NFDRS). The ERC is a number related to the available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire and is used to determine the likely spread and intensity of a given ignition.

84 USDA Forest Service, "Fiscal Year 2024 Budget Justification" (March 2023).

85 USDA Forest Service, "Fiscal Year 2024 Budget Justification" (March 2023).

out of a total budget of $3.8 billion in 2022-23, roughly 87%—funds wildfire response and suppression.[86]

While some of this vast funding is being used to protect homes and other critical infrastructure via necessary suppression activities, other fire suppression activities are simply deferring risk to the future, when there likely will be more fuels and hotter, drier conditions. This has been the cycle for the past century, and this suppression/deferred risk paradigm is a large reason for the current wildfire crisis. Wildfire management dollars need to be spent instead on restoring fire intervals and returning forests to more resilient conditions. Recognizing Tribes—the original fire managers—as equal partners and leaders in fire management is also necessary to help bring about this more holistic way of thinking.

## RECOMMENDATIONS

- **Recommendation 33.** Congress should revise the Weeks Act and related federal laws to support equitable, cooperative fire management involving Tribes, states, and the federal government. Tribes should have a seat at the table in deciding how wildfires in their lands of territorial affiliation are managed, and how fire intervals will be restored. F [87]
- **Recommendation 34.** Congress should acknowledge Tribal authority to coordinate expanded fire management capacity including by enabling Tribes to enter into fire management compacts with states and foreign nations. F [88]
- **Recommendation 35.** Congress and the California Legislature should provide fire managers with the direction and authority to complete the fire interval under safer conditions following the initial suppression of a wildfire ignition. During a wildfire response action, the responsible fire management agency would establish "temporal management action points," or the times and conditions under which reignition could occur as part of a set of response strategies to be employed. Managed ignitions would be permissible (i) anywhere within the projected extent of the wildfire event, as if suppression activities had not occurred; (ii) within the same calendar year; and, (iii) when ERCs are low or decreasing. Managed ignitions would not require an additional burn plan, smoke management plan, or environmental impact analysis outside of any that enabled fire response actions to occur. These ignitions would be considered continuations of a fire interval rather than a new event and employed as part of a set of response strategies selected under an approved long range strategic operating plan, or equivalent planning document. S F

86 California Legislative Analyst's Office, "Improving Legislative Oversight of CalFire's Emergency Fire Protection Budget" (2023).

87 **Commission Recommendation 49**: Revise the Weeks Act to include Tribes in the management and restoration of fire on equal footing to states.

88 **Commission Recommendation 48**: Congress should enhance Tribal participation in fire management compacts with states and foreign nations.



## CHAPTER 6: WORKFORCE DEVELOPMENT

In order to implement the recommendations contained in *Good Fire II*, a well-trained, funded, and appropriately sized workforce will be necessary. Developing this workforce will require not only investments in recruiting and training, but also significant shifts in agency culture and priorities. The existing systems built to support today's suppression-focused workforce are incompatible with holistic fire management rooted in Indigenous stewardship and renewed application of beneficial fire at the landscape scale.

### BARRIER: Tribes and Cultural Fire Practitioners Lack Resources to Build an Expanded Workforce.

Since time immemorial, Tribes and cultural fire practitioners took on the mantle of stewarding their lands of territorial affiliation—including through the application of fire. Yet due to centuries of forced removal, genocide, assimilation and land theft, and the carryon effects of that trauma, many Tribal people currently lack the resources, time, or training necessary to steward their ancestral lands in the same manner as in prior generations. Although a growing recognition of IKPBS has been developing in law and among Western land managers, many prospective cultural fire practitioners lack access to stable and well-paying jobs, as well as knowledgeable mentors, among other barriers. The 2023 Assessment of Indian Forests and Forest Management in the United States (IFMAT IV), prepared for the Intertribal Timber Council, found that lack of adequate recurring funding for Tribes is the "single largest cause of staffing shortages" in Tribal forestry programs.[89] Cultural fire practitioners can and should play a key role in the rapid expansion of the fire mitigation and resilience workforce, but only if the barriers to accessing these jobs are addressed.

A lack of affordable housing in and near Tribal communities is also a major impediment to establishing the workforce needed for Indigenous stewardship activities throughout lands of territorial affiliation. Expanding Tribal workforce housing—including on lands currently administered by federal agencies—is an essential component of scaling Indigenous stewardship to entire landscapes.

89 IFMAT IV, at 103.

Many prospective cultural fire practitioners also lack access to training pathways that are grounded in IKPBS, as well as culturally competent mentors qualified to provide instruction in cultural burning techniques and traditions. Decades of concerted effort to prohibit the application of cultural fire have eroded traditional methods of passing down knowledge, resulting in fewer elders and Tribal leaders able to provide education or mentorship to the next generations of cultural fire practitioners. While organizations like the Indigenous Stewardship Network and Indigenous Peoples Burning Network are revitalizing traditional fire cultures, state and federal agencies can expand upon the work of these organizations by offering resources—including funding, support staff, equipment, and training sites—specifically dedicated to training and supporting new cultural fire practitioners. These cultural fire practitioners can then operate in service to their Tribes and broader communities, beginning to right the historic wrongs inflicted on both Indigenous peoples and the landscape.

Finally, certain federal human resources practices have resulted in Tribal positions that are less financially attractive than equivalent federal positions, creating an uphill battle for Tribes to be able to retain highly skilled Tribal fire staff. For example, the BIA recently engaged in efforts to reform processes for requesting Tribal Wildland Firefighter Full Time Equivalents (FTE) that support development and retention of Tribal employees. This is important as some Tribes opt for BIA to provide direct services, but others utilize ISDEAA's 638 Authority to receive funding to implement programs directly. While Tribes are not limited in what they pay Tribal employees, agencies have asserted that reimbursement for these positions under 638 contracts and compacts may not include cost-of-living adjustments or an adequate recognition of local costs of living, thereby effectively limiting what Tribes can pay employees. This refusal can result in annual budget reductions for Tribes, inadvertently depriving Tribes of personnel funding that personnel employed directly by the BIA, and leading to retention issues. Similarly, current retirement saving structures make it difficult for federal employees to take positions with Tribes without losing access to important benefits.

## RECOMMENDATIONS

- **Recommendation 36.** Many of the recommendations to build regenerative economic systems outlined in Chapter 3 are necessary to support the development of Tribal workforces. The availability of stable funding is a prerequisite to building a stable workforce.
- **Recommendation 37.** Congress and federal agencies should support the transfer of federally administered lands and facilities to Tribes for the development of workforce housing, and other purposes. F [90] Specific options include:
  - In 2023, President Biden signed into law the Recreation and Public Purposes Tribal Parity Act, which enables the BLM to sell or lease certain lands to Tribes at less than fair market value, for recreational or public purposes. The BLM should find that development of Tribal workforce housing qualifies as a "public purpose" under this new authority.
  - The 2018 Farm Bill authorized the Forest Service to transfer certain administrative sites to Tribes. However, this authority will sunset when the Farm Bill expires. Congress should expand upon this authority to ensure that sites appropriate for workforce housing are readily available for no-cost transfers to Tribes and make it permanent.
  - The 1958 Townsites Act authorizes the Forest Service to transfer up to 640 acres of land in certain states if the "Indigenous community objectives… outweigh the public objectives and values which would be served by maintaining such tract in Federal ownership." However, while the Secretary may offer such an area for sale to a *governmental subdivision*, this does not include Tribes. Congress should adopt legislation to enable the Forest Service to use this existing authority for no-cost transfers to Tribes.
- **Recommendation 38.** Congress should ensure that income generated by workforce housing can be reinvested by Tribes for the perpetuation of Tribal programs and cultural knowledge, practice, and belief systems. F
- **Recommendation 39.** State and federal agencies should make available resources, including funding, support staff, equipment, and training sites, specifically dedicated to training and supporting new cultural fire practitioners, as desired and directed by Tribes or Tribal organizations. S F [91]
- **Recommendation 40.** Congress or the BIA should ensure that cost-of-living adjustments apply to employees operating under 638 compacts or contracts. F [92]

90 **Commission Recommendation 103**: Enable the federal government to transfer appropriate lands and facilities to Tribes for development of workforce housing.

91 **Commission Recommendation 92**: Tribes should be supported to expand mitigation, response, and restoration workforces.

92 Part of **Commission Recommendation 92**: Tribes should be supported to expand mitigation, response, and restoration workforces.

- **Recommendation 41.** Congress and the California Legislature should consider mechanisms to support a year-round Tribal workforce that can complete preparedness, fuels reduction, and prevention program actions and activities within their lands of territorial affiliation. Workers would predominantly work on these programs but would have availability for selective all risk assignments. S F
- **Recommendation 42.** With respect to retirement benefits, Congress or relevant federal agencies should:
  - Allow federal employees to continue paying into federal retirement accounts when transferring to Tribal jobs. The Tribal employer would be responsible for the employer match. F
  - Modify the Intergovernmental Personnel Act Mobility Program to (i) ensure that participants are not penalized in how time worked counts for retirement purposes and (ii) create a shared position job series, to ensure that shared positions are compensated at a rate commensurate to the complexity level. F [93]

## BARRIER: Fire Management Agencies Deprioritize Prescribed Fire and Other Stewardship Activities.

While most firefighting agencies have highlighted the importance of wildfire resilience treatments, especially beneficial fire, these efforts remain siloed from and deprioritized under fire suppression program, workforce, and funding deployment. Increased investment to reduce wildfire risk must occur at the landscape-scale and at a pace commensurate with the urgent need to strategically address the growing wildfire crisis. Both the state and federal government must commit to a paradigm shift, adopting new strategies that allow fire suppression when necessary while ensuring there are resources available to implement prescribed fires when ecologically appropriate throughout the year. Even with significantly expanded Indigenous stewardship and cultural burning efforts, agency-supported prescribed fire use is also necessary to address the wildfire crisis at present.

Both burners and existing literature describe the dampening effect that existing agency culture has on expanding prescribed fire in multiple contexts: on public lands by agencies, on private lands in partnership with agencies, and on private lands with authorization by agencies. This culture issue is reported at the Forest Service, the BLM, the BIA, and CAL FIRE.

Reported issues can be grouped in a few ways. First, using the same staff for fire suppression and prescribed fire has not been effective. Crews report feeling burned out and unmotivated after long fire suppression seasons, and an ever-longer fire season has exacerbated this issue. Suppression training requirements and loss of seasonal workers means that there is insufficient staffing when prescribed burn windows are available.[94] Both the Bipartisan Infrastructure Law and the Inflation Reduction Act included significant funding for prescribed fire activities, and deployment of additional crews has begun, but such funding has yet to translate into significantly larger and fully dedicated prescribed fire workforces. Treating landscapes and improving community wildfire resilience at the required scale necessitates a specialized, year-round workforce. Seasonal positions may supplement, but should not form the foundation of, an agency's prescribed fire workforce.

Second, internal agency structures disfavor work on prescribed fire. Employees are rewarded for fire suppression activities with higher pay, career advancement, and public accolades. On the other hand, many employees view prescribed fire as risky, with the potential for an escaped burn to raise questions of agency and individual liability, but compensation, career pathways, and accolades for beneficial fire are significantly inferior to those in fire suppression.[95] Agency culture has created minimal consequences for employees that fail to support the program of proactive stewardship work, including engaging in prescribed burning.

Third, agencies have not invested in adequate training or education on prescribed fire. Private burners report that agency staff use private training burns to become more knowledgeable, but only if individual employees are motivated to do so. Private burners also report that CAL FIRE staff can lack knowledge about permitting and other issues for private burners, though this issue has improved with CAL FIRE's online permitting system in recent years.

Finally, existing agency structure creates more existential questions. The same agencies that created the problem—via fire suppression and other forest management techniques—are being asked to be responsible for the solution. Yet the agencies have largely failed to acknowledge that their past and present decisions play a large role in the difficult circumstances currently

93 These Tribal-specific recommendations are part of **Commission Recommendation 86**: Address "break in service" rules and retirement benefit portability.

94 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities," Ecosystem Workforce Program Working Paper (Summer 2018) (discussing issue within USFS).

95 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities," Ecosystem Workforce Program Working Paper (Summer 2018).

experienced. Without such acknowledgement, cultural change may be difficult.

Increasing wildfire severity, continuing to defer risk through fire suppression, and climate change will continue to exacerbate these issues. As the existing fire suppression workforce faces growing strain, fewer resources will be available to devote to prescribed fire. In order to transform agency culture, resources cannot be simply reallocated from suppression activities; indeed, this model has led in part to the competition within agencies between prescribed fire and suppression activities (with suppression inevitably winning). Instead, an influx of new funding and a dedicated workforce that cannot be redirected away from prescribed fire activity must supplement the existing suppression-focused workforce. Investing in the wellbeing of the existing workforce will ensure that suppression personnel stay above water, while generating new funding and opportunities within prescribed fire can proactively relieve some of the burden on the suppression workforce by mitigating wildfire risk.

## RECOMMENDATIONS

- **Recommendation 43.** Congress, the California Legislature, and state and federal agencies should support (via funding, land, and resources) the creation of new beneficial fire training centers. Currently, there is one National Interagency Prescribed Fire Training Center, but it is located in Tallahassee, Florida. One or more "all hands, all lands" training centers in the West would help create a well-trained workforce ready and able to drive cultural change in a variety of different organizational and landscape conditions. Tribes, academic institutions, and non-profit organizations (such as Tall Timbers, the Indigenous Stewardship Network, and the Nature Conservancy) should have opportunities to lead in the development and management of these centers, which should be coordinated and networked across the country in order to ensure ecologically and culturally grounded training.. S F [96]
- **Recommendation 44.** Federal agencies should increase the quantity and quality of prescribed fire training opportunities for their personnel and other workers to meet the demand for a larger, more diversified, and well-trained workforce. Training should be comprehensive, including not only prescribed fire operations and fire safety, but also beneficial effects of fire, science-based ecological restoration principles, public health, public communication, and cultural awareness. Trainings should be scheduled to avoid conflicts with likely burn windows. S F [97]
- **Recommendation 45.** Federal and state agencies should create or expand dedicated prescribed fire or fuels reduction crews. The same people should not be used for fire suppression and prescribed fire activities. Agencies should also implement policies to improve retention within these dedicated crews and ensure that career advancement opportunities for prescribed fire careers match those for suppression-focused careers. S F
- **Recommendation 46.** Congress, the California Legislature, and agencies should invest in regional prescribed burn "cadres" or "modules" that could facilitate complex burns across a variety of landscapes within their regions. Such teams should be interagency and/or public-private partnerships and should consider using the all hands, all lands burning model first developed in New Mexico, and being piloted in northwest California as a starting place. S F
- **Recommendation 47.** Congress and the California Legislature should consider mechanisms to expand and support K-12 outreach, post-secondary forestry education programs, continuing education, conservation corps, Tribal intergenerational learning programs, and workshops to train the next generation of forestry professionals to implement beneficial fire activities. S F
- **Recommendation 48.** Congress, the California Legislature and agencies should develop integrated prescribed fire workforce recruitment, training, retention, and deployment systems. Workforce development and deployment systems must be equitable and inclusive of the non-agency workforce and ensure capacity for prescribed fire work during higher preparedness levels. S F
- **Recommendation 49.** Agencies should increase incentives for agency personnel to engage in the planning and implementation of prescribed burns and to develop successful partnerships with non-governmental entities and Tribes. S F
- **Recommendation 50.** Agencies should focus their recruitment and retention strategies on people with career goals in fire and natural resource management, rather than solely suppression, to fill beneficial fire-related roles. S F

96 A prescribed fire training center is part of **Commission Recommendation 95**: Create and fund more training opportunities for the mitigation and management workforce.

97 **Commission Recommendation 95**: Create and fund more training opportunities for the mitigation and management workforce.

- **Recommendation 51.** Congress should address the disparity in pay, benefits, and housing availability that make it difficult for the federal government and Tribes to retain a well-trained workforce for both wildfire suppression and mitigation activities. Specifically, Congress should increase wages and benefits and eliminate pay disparities (including those resulting from prevailing wage or other state laws). F
- **Recommendation 52.** Congress, the California Legislature, and state and federal agencies should work to address the mental health challenges facing the wildland fire mitigation and management workforce. In particular, these entities should work to decrease the need for long deployments by addressing the root cause of the problem: the lack of beneficial fire on the landscape. Other ideas include implementing wellness programs, increasing paid time off, improving access to mental health services, and developing mechanisms to keep workers in their communities. S F [98]

### BARRIER: The Morrill Act Created Injustices that Continue to be Perpetuated.

Native American communities face the highest poverty rates and lowest labor force rates of any major racial or ethnic group in the United States, in part due to loss of access to land and resources, generational trauma, and systemic injustice, including in education and job training. These injustices continue to be perpetuated.

One stark example is the 1862 Morrill Act. This Act enabled the federal government to grant nearly 11 million acres of lands expropriated from Tribal communities to states to establish land grant colleges. Not only was the land used for the development of universities themselves, but excess lands were allowed to be sold, with the proceeds used to establish university endowments that continue to this day. As investigative reporters with *High Country News* report, "Land-grant universities were built not just **on** Indigenous land, but **with** Indigenous land."[99]

Once the universities were established, the injustices continued. Many of these universities, which focused on agriculture and forestry, perpetuated the fire exclusion and forest exploitation practices that fuel today's wildfire crisis. Not only did the Morrill Act result in land theft, it helped develop the workforce that staffed federal agencies and attempted to discredit, criminalize, and eliminate Indigenous stewardship practices. It also excluded Indigenous peoples from acquiring professional qualification standards and accessing jobs governing the stewardship of their homelands. Many universities are now offering free tuition to Indigenous peoples, but without permanent jobs on Tribal lands, this too becomes a process of forced removal and assimilation, and contributes to Indigenous erasure. Tribes have the right to determine their own educational and stewardship systems, and creating Tribal endowment systems from these university funds is not only the logical, moral, and ethical solution, it is simply the right thing to do in regard to overcoming this systemic injustice.

#### RECOMMENDATIONS

- **Recommendation 53.** Congress should develop mechanisms to require or incentivize land grant universities to reinvest a portion of their endowments into Tribal communities, in order address the historic injustice of land theft, educational exclusion, as well as the forest health crisis created by agencies' poor management, and to fund Indigenous stewardship efforts. For instance, reinvestment of one percent of the endowment of the University of California system ($23.4 billion in 2023) would generate approximately $10 million per year for Indigenous stewardship programs in perpetuity. This investment could fund approximately 100 positions per year within Tribes in California. Expanding university involvement to a national scale would have much larger impact for Tribes. F

98 **Commission Recommendation 97**: Invest in a comprehensive approach that addresses mental and physical health.

99 R. Lee et al., "Land-Grab Universities: A High Country News Investigation." High Country News (2020) available at https://www.landgrabu.org/.



## CHAPTER 7: AIR QUALITY

For decades, federal and state governments were able to artificially exclude fire from fire-dependent and fire-adapted landscapes, resulting in the misconception that people in the United States could live largely free from fire and smoke. This legacy of fire suppression has caught up with us now, however, and is resulting in wildfires that are uncharacteristically severe compared to pre-European fire regimes, with corresponding smoke emissions and public health impacts. Restoring fire to these ecosystems can help restore desired forest conditions and maintain ecosystem functions, while reducing the risk of severe wildfire and smoke events to nearby populations.

Given the severity of the wildfire crisis and the need to restore beneficial fire, it is no longer appropriate or even possible to completely avoid fire and smoke. However, it is possible to begin to choose when and how fire events and smoke impacts occur. Smoke is a natural part of fire-dependent and fire-adapted landscapes. Laws and policies should treat it as such, rather than a pollution source similar to power plants and tailpipes, the industrial sources that the Clean Air Act was intended to regulate. A restored relationship with fire means communities and regulatory agencies must learn to accept some air quality effects in order to avoid longer, more severe impacts from uncharacteristically intense wildfires.

The current air quality regulatory framework presents a potential barrier to all beneficial fire use.[100] Wildfires produce significant amounts of particulate matter (both PM2.5 and PM10) and ozone precursors, which contribute to haze and present a variety of health risks.[101] While beneficial fire produces air quality impacts as well, they tend to be orders of magnitude lower than those of wildfire as shown in Figures 8 and 9. Beneficial fire use is also the main way to reduce the incidence and severity of wildfires,

100 *See., e.g.*, C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018) (Federal land managers generally report that air quality is a barrier, though not the key barrier.).

101 *See generally* Wild Fire Smoke: A Guide for Public Health Officials (2019), available at https://www.airnow.gov/sites/default/files/2021-09/wildfire-smoke-guide_0.pdf; C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018).

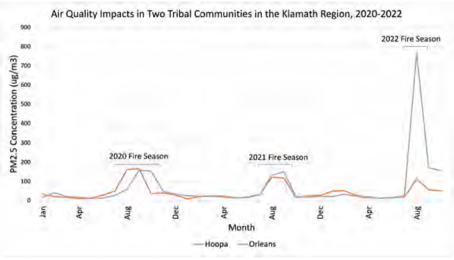



**FIGURE 6. Air Quality Impacts in Two Tribal Communities in the Klamath Region, 2020-2022.** This graph shows fine particulate matter concentrations in two tribal communities in the Klamath Region, which regularly experience smoke intrusion events. High PM2.5 values seen from late July through September are from wildfires, showing the clear impact on local communities. Slightly elevated values during the late fall and winter are likely due to beneficial fire use and home heating. Data source: PurpleAir sensors.

and therefore has the ability to reduce the total pollution exposure that communities face.[102] Unfortunately, at present, air quality regulations largely treat beneficial fire as a stand-alone emissions source, rather than as a mitigation measure to reduce overall emissions or as a natural background condition. Consequently, federal, state, and local regulators tasked with protecting public and environmental health have developed a complex framework of oversight and permitting to control these emissions.

## NATIONAL AMBIENT AIR QUALITY STANDARDS AND EXCEPTIONAL EVENTS

The cornerstone of air quality regulation is the federal Clean Air Act. Congressional intent in its enactment is clear from its findings: to control air pollution from "urbanization, industrial development, and the increasing use of motor vehicles" in order to protect "public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation."[103] It establishes a joint regulatory program, with the federal government establishing the general regulatory framework and standards and states and Tribes given latitude in implementing it. The text of the Clean Air Act does not mention wildland fire or smoke as an emission source, though EPA has promulgated regulations addressing their treatment under the Act.

Specifically, the Clean Air Act imposes both air quality and visibility regulations that are administered by the Environmental Protection Agency (EPA) and implemented at the state, local, and, in some instances, Tribal level. First, EPA establishes National Ambient Air Quality Standards (NAAQS) at the levels requisite to protect public health, imposing quantitative standards for six criteria pollutants, including particulate matter and ozone, both of which result from smoke.[104] In February 2024, the EPA issued a final rule making a significant reduction in the annual NAAQS for fine particulate matter (PM2.5).[105]

Each state is responsible for reporting emissions to the EPA, which in turn designates whether individual regions are in "attainment," in "nonattainment," or are "unclassifiable."[106] States must then prepare State Implementation Plans (SIPs) demonstrating how they will bring all regions into attainment; federally recognized Tribes may also prepare Tribal Implementation Plans (TIPs), which are regulated by the federal government, and assume jurisdiction of the air within the external boundary of a reservation or other area within the Tribe's jurisdiction.[107] States (or Tribes with TIPs) may face financial consequences if the EPA finds a region to be in nonattainment of the NAAQS for an extended period.[108]

One complicating factor in addressing air quality issues is the EPA's divergent treatment of wildfire emissions and prescribed fire emissions under Clean Air Act regulations.[109] Specifically, section 319(b) of the Clean Air Act allows states to exclude from their NAAQS accounting certain emissions that result from "exceptional events."[110] An exceptional event is one that the EPA Administrator determines, based on a submittal from a state or Tribe:

102 M. Burke et al., "The Changing Risk and Burden of Wildfire in the US" NBER Working Paper Series (June 2020) (noting that the ability of prescribed fire to reduce the amount of smoke depends on the efficacy of prescribed fires in reducing the subsequent size of wildfires); X. Wu et al., "Low-intensity fires mitigate the risk of high-intensity wildfires in California's forests." Science Advances (2023).

103 42 U.S.C. § 7401(a)(2).

104 The criteria air pollutants include particulate matter, ground-level ozone, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide. EPA, Criteria Air Pollutants, available at https://www.epa.gov/criteria-air-pollutants.

105 https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-final-frn-pre-publication.pdf.

106 42 U.S.C. § 7407(d); EPA, NAAQS Designation Process, available at https://www.epa.gov/criteria-air-pollutants/naaqs-designations-process.

107 40 C.F.R. §§ 49.1-49.11.

108 42 U.S.C. § 7407.

109 M. Burke et al., "Managing the growing cost of wildfire" Stanford Institute for Economic Policy Research, Policy Brief (October 2020).

110 42 U.S.C. § 7619(b)(1).

(i) affects air quality; (ii) is not reasonably controllable or preventable; and (iii) is caused by human activity that is unlikely to recur at a particular location or is a natural event.[111] The EPA has promulgated regulations implementing section 319(b), known as the "Exceptional Events Rule."

The 2016 Exceptional Events Rule codified EPA practice of excluding certain wildfire emissions as "natural events." Although all wildland fire has arguably been exacerbated by decades of human fire exclusion and human-caused climate change, and although prescribed fire has the capacity to return the fire regime to a more "natural" state, the EPA stated in its 2019 Guidance on the Exceptional Events Rule that it "would not treat a prescribed fire as a natural event… unless the prescribed fire develops into a wildfire."[112]

Accordingly, states or Tribes seeking to exclude prescribed fire emissions from determinations of NAAQS compliance must instead demonstrate on a case-by-case basis that (i) a prescribed fire is unlikely to recur at a particular location and (ii) that the emissions from that burn were not reasonably controllable or preventable.[113] While this language appears to run counter to both the practice and definition of prescribed burns, the EPA has determined that Exceptional Events determinations are technically possible for prescribed fire, though in the seven years since adoption of the Exceptional Events Rule, no such determinations have been submitted or approved.[114]

This lack of use is likely because the current regulations make this showing exceptionally onerous. To demonstrate that a prescribed fire is unlikely to recur at a particular location, states or Tribes must compare the actual frequency of prescribed fire with "an assessment of the natural fire return interval or the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan."[115] If the burn will not occur more frequently than necessary to establish, maintain, or restore the ecosystem, the fire will be deemed "unlikely to recur" at that location. Similarly, to demonstrate that prescribed burn emissions are "not reasonably controllable" a state or Tribe must certify that it "has adopted and is implementing a smoke management program or…that the burn manager employed appropriate basic smoke management practices."[116] To demonstrate that prescribed burn emissions are "not reasonably… preventable," the state or Tribe must show that the burn is conducted in accordance with "a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire."[117] Finally, and perhaps most onerous, the state or Tribe must adequately demonstrate the "clear causal connection" between the specific prescribed fire and the specific exceedance or violation of the NAAQS for which the exclusion is sought.[118] The analysis required to perform this demonstration is highly technical, requiring access to significant data and modeling, and the resources to complete it.

In practice, the cost and logistical difficulty of making a demonstration for each prescribed fire make the current Exceptional Events Rule an ineffective tool to discount emissions from prescribed fire. States therefore regularly count prescribed fire emissions against their NAAQS compliance.[119] Consequently, Air District regulators are careful to ensure that prescribed fires are not likely to result in a NAAQS exceedance. This sets up a perverse incentive structure. The high severity wildfires, which cause the vast majority of smoke and air quality impacts, and which are not "natural" due to over a century of fire exclusion, are largely given a free pass. The prescribed

111 *Id.*

112 Environmental Protection Agency, "Exceptional Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations." (August 2019), available at https://www.epa.gov/sites/production/files/2019-08/documents/ee_prescribed_fire_final_guidance_-_august_2019.pdf; *see also* 81 Fed. Reg. 26,959 (2016); 40 CFR §§ 50.1(j),(k), (m)-(r), 50.14, 51.930.

113 *Id.*

114 U.S. Government Accountability Office, "Wildfire Smoke: Opportunities to Strengthen Federal Efforts to Manage Growing Risks" (March 13, 2023). EPA has recently worked with air districts in California to develop a model prescribed fire exceptional event demonstration, though it has yet to be approved.

115 40 C.F.R. § 50.14(b)(3)(iii).

116 40 C.F.R. § 50.14(b)(3)(ii)(A).

117 40 C.F.R. § 50.14(b)(3)(ii)(C).

118 40 C.F.R. § 50.14(c)(3)(iv)(B).

119 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018) ("Although a few interviewees indicated that the new exceptional events rule creates more space to petition for a prescribed fire that causes exceedances of NAAQS to be considered an exceptional event, interviewees also noted that the significance of the rule change was limited because it does not allow prescribed fire to be exempted from regulation. It is not permissible under the Clean Air Act for federal land managers to intentionally plan and cause for exceedances. As one person said, 'The problem with the exceptional events rule is you've gotta have an exceptional event. You can't plan to have an exceptional event.'").

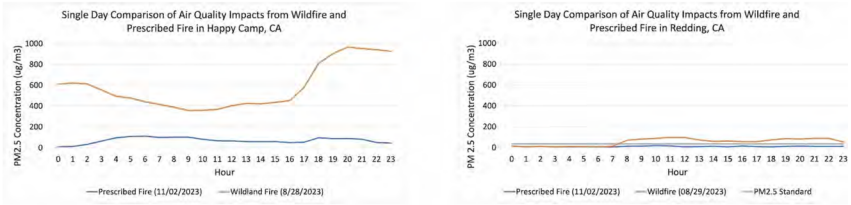



**FIGURE 7. Single Day Comparison of Air Quality Impacts from Wildfire vs. Prescribed Fire.**

**7a.** Daily fine particulate matter concentrations recorded by the PurpleAir sensor in Happy Camp, CA during wildfires in the nearby Klamath Basin compared to concentrations during a known prescribed fire a few months later in the same area. Data Source: PurpleAir sensors.

**7b.** Daily fine particulate matter concentrations at the federal regulatory air monitor in Redding, CA during wildfires in the nearby Klamath Basin compared to concentrations during a known prescribed fire a few months later in the same area. The current 24 hour National Ambient Air Quality Standard for fine particulate matter is also provided as a reference point. Data source: California Air Resources Board, Air Quality Data Query Tool.

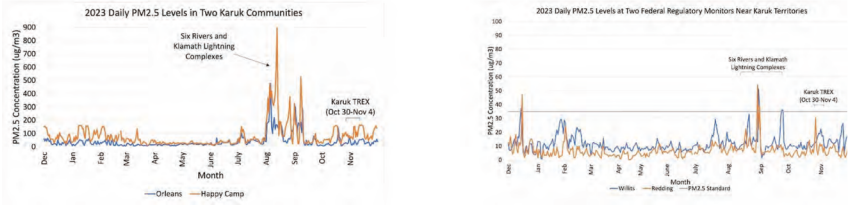



**FIGURE 8. 2023 Daily PM2.5 Levels Near Karuk Communities.**

**8a.** Daily averages of fine particulate matter concentrations recorded by the Orleans and Happy Camp PurpleAir sensors throughout 2023. Note that the concentration of particulate matter in Happy Camp reached 900 ug/m3, which is over 10x greater than what was recorded in the nearest federal regulatory air quality monitor. Air quality readings of 250 ug/m3 and higher are typically considered hazardous. Data Source: PurpleAir sensors.

**8b.** Daily averages of fine particulate matter concentrations recorded by the Willits and Redding federal regulatory air quality monitors throughout 2023, which are the two monitoring stations closest to Karuk communities. The current 24 hour NAAQS for fine particulate matter concentrations is also displayed. Data source: California Air Resources Board, Air Quality Data Query Tool.

burning that could actually restore natural fire regimes and mitigate and prevent uncharacteristically intense wildfires are regulated and restricted.

Additionally, current interpretation and implementation of the Clean Air Act fails to fully consider the way that its regulatory limitations may inhibit the full exercise of Tribal rights to burn. Cultural burning and other forms of Tribal beneficial fire should be included as part of natural or background conditions, and not a pollutant source subject to regulation or curtailment akin to "urbanization, industrial development, and the increasing use of motor vehicles." In its recent proposed rule to reduce the PM2.5 NAAQS, the EPA stated that such a change "does not have Tribal implications, as specified in Executive Order 13175 [adopted November 6, 2000]. (88 Fed. Reg. 5558, 5688). It does not have a substantial direct effect on one or more Indian Tribes as Tribes are not obligated to adopt or implement any NAAQS." This statement is only true if the proposed reductions in the NAAQS do not result in states attempting to regulate or curtail prescribed fire with cultural objectives, fire regime restoration on lands of territorial affiliation, or cultural burning.

The frequent use of Exceptional Events determinations for wildfire smoke impacts is a central pillar of continued fire exclusion and suppression policies. Under the current system, states are disincentivized from implementing widespread prescribed fire use as they are forced to reckon with exceedances and violations of NAAQS in advance of

permitting prescribed fire use. Rather than figuring out how to navigate existing requirements, states simply turn down or condition permits, and prescribed burners learn to reduce the scope of their projects accordingly. However, because emissions from wildfires that occur without permits and are excused, after the fact, from contributing to these same standards, the severe health and economic impacts to rural, Tribal, and urban communities as wildfires increase in frequency, size, and severity are largely neglected, if not inadvertently caused by the Clean Air Act regulations themselves.

## REGIONAL HAZE RULE

In addition to the NAAQS, section 169A of the Clean Air Act "declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility" in certain national parks and wilderness areas (so-called "Class 1 Areas").[120] The EPA administers section 169A through the Regional Haze Rule.[121] The Regional Haze Rule requires states to establish emissions reduction strategies with "the goal of reaching natural background conditions in Federal Class I areas by 2064."[122] Critically, under guidance promulgated by the Western Regional Air Partnership for implementation of the Regional Haze Rule, beneficial burns ignited for the purpose of ecosystem restoration or maintenance or cultural burning conducted for traditional, religious, and ceremonial purposes are to be categorized as "natural," while emissions from other burns (such as agricultural burns) are to be categorized as "anthropogenic."[123]

## STATE IMPLEMENTATION

In California, the Air Resources Board (CARB) and the State's 35 air districts are responsible for ensuring compliance with the NAAQS, the Regional Haze Rule, and other federal and state air quality standards.[124] Health and Safety Code section 41850 et seq. grant CARB and the districts the authority to "reasonably regulate" burning in order to limit associated emissions.[125] Pursuant to that authority, no person may conduct an agricultural burn or prescribed fire[126] without an air quality permit unless the relevant air district first determines a burn will not significantly affect air quality.[127] CARB has promulgated guidelines for the regulation and control of prescribed fire use within each air basin and determines, based on meteorological data, days when burning shall be prohibited.[128] CARB's guidelines are codified at California Code of Regulations, title 17, subchapter 2 ("Smoke Management Guidelines for Agricultural and Prescribed Burning").[129] Using these guidelines, each air district has developed individual rules and regulations for prescribed burns in its region.

### BARRIER: The Clean Air Act and Related State Regulations Fail to Acknowledge Cultural Burning as "Natural" or "Background" Conditions, Subject to Tribal Rights.

At present, neither the Clean Air Act nor California's State Implementation Plan explicitly regulate cultural burning. Both the federal statute and the state's regulatory system are silent on the practice. Some air districts have appropriately concluded that cultural burning is not subject to their smoke management permitting process.

120 42 U.S.C. § 7491(a)(1); C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018). (Specifically, Class I Areas include designated wilderness areas over 5,000 acres in size and national parks over 6,000 acres in size. The majority of these Class I areas are in the western states).

121 Regional Haze Regulations, 64 Fed. Reg. 35,714, 35,715 (Jul. 1, 1999) (codified at 40 C.F.R. pt. 51).

122 Western Regional Air Partnership, Policy for Categorizing Fire Emissions (November 15, 2001), available at https://www.env.nm.gov/wp-content/uploads/sites/2/2018/03/FireCatPolicy.pdf.

123 *Id.* at i, 8, 13, 18; *see also* 40 C.F.R.§ 51.308(f)(1)(vi)(B) (states to add to their "natural visibility condition" emissions from "wildland prescribed fires that were conducted with the objective to establish, restore, and/or maintain sustainable and resilient wildland ecosystems, to reduce the risk of catastrophic wildfires, and/or to preserve endangered or threatened species during which appropriate basic smoke management practices were applied").

124 Health & Saf. Code §§ 39602 ("The state board is designated the air pollution control agency for all purposes set forth in federal law."), 39606(a)(2) ("The state board shall…[a]dopt standards of ambient air quality for each air basin in consideration of the public health, safety, and welfare.").

125 Health & Saf. Code § 41850; *see generally* Health & Saf. Code §§ 41850-41866.

126 While the statute refers only to "agricultural burning," the State's smoke management guidelines attempt to clarify that this definition is inclusive of prescribed fire. 17 C.C.R. § 80100 ("The Smoke Management Guidelines for Agricultural and Prescribed Burning, …are to provide direction to air pollution control and air quality management districts (air districts) in the regulation and control of agricultural burning, including prescribed burning, in California"); 17 C.C.R § 80101(a) (defining "agricultural burning" to include "open outdoor fires" used for "forest management, range improvement, or the improvement of land for wildlife and game habitat, or disease or pest prevention").

127 Health & Saf. Code §§ 41852, 41852.5 (CARB may waive permit requirement if it determines a burn will not significantly affect air quality).

128 Health & Saf. Code §§ 41855-41857.

129 17 C.C.R. §§ 80100-80330.

Indeed, regulation of cultural burning (as well as other forms of beneficial fire) would be out of step with the Clean Air Act's intent, which was to regulate air pollution from "urbanization, industrial development, and the increasing use of motor vehicles."[130] Congress was concerned about curtailing or modifying industrial activity, not natural processes that are ill-suited to regulatory control.

Nevertheless, by structuring the Clean Air Act such that enforcement flows from the failure of states to attain certain standards of *ambient* air, the Clean Air Act does a poor job of differentiating emission sources. In doing so, it fails to recognize that while states have significant control over the industrial, transportation, and other human activities within their borders, they have very little ability to control smoke, especially from fire-dependent or fire-adapted ecosystems. Moreover, most states have not yet formally acknowledged that their ability to regulate Tribal cultural practices is further limited by the existence of Tribal rights and sovereign authorities throughout lands of territorial affiliation. Any effort to create procedural ease under the Clean Air Act, or to amend its structure to better account for emissions from natural processes, must take this retained authority into account.

Further, the EPA has recognized that the cultural importance of an activity may warrant differential treatment under the Clean Air Act. In the Exceptional Events Rule, fireworks displays may be excluded from monitoring data if the "use of fireworks is significantly integral to traditional national, ethnic, or other cultural events including, but not limited to, July Fourth celebrations ..."[131] In these contexts, the EPA allows fireworks to be excluded from monitoring data under the Exceptional Events Rule, even if fireworks do not meet the other statutory definitions. The EPA should rely on similar reasoning to exempt smoke from cultural burning from the Clean Air Act.

## RECOMMENDATIONS

- **Recommendation 54.** Through revisions to the Exceptional Events Rule, the EPA should explicitly recognize cultural burning as part of natural, baseline conditions and, in recognition of Tribal rights, prohibit states from attempting to regulate its use. Instead, states can use Exceptional Events determinations to exclude emissions from cultural burns if such emissions create events of regulatory significance. Alternately, Congress could create similar clarity through amendments to the Clean Air Act. F
- **Recommendation 55.** The California Legislature should acknowledge that cultural burning falls under Tribal law and authority and establish a pathway via sovereign-to-sovereign agreements that clarifies that cultural fire practitioners are not subject to air quality permitting processes. SB 310 would provide this option. S

### BARRIER: Air Quality Regulators Limit the Use of Prescribed Fire.

Pursuant to its mandate under Health and Safety Code sections 41856 and 41857, CARB has established meteorological criteria for prescribed fire for each air basin in the State.[132] Based on these criteria, CARB is required to declare whether each day is a permissive burn day, a marginal burn day, or a no-burn day.[133] CARB must make this determination by 3 p.m. each day for the following day, but "if conditions preclude a forecast until the next day, the decision shall be announced by 7:45 a.m."[134] A marginal burn day designation allows air districts "to authorize limited amounts of burning...if the air district demonstrates that smoke impacts to smoke sensitive areas are not expected as a result."[135] By contrast, prescribed fire use is permitted on non-burn days only "if denial of such a permit would threaten imminent and substantial economic loss."[136]

CARB requires each district to maintain a smoke management program to regulate the amount and manner of agricultural burning and prescribed fire use in each district.[137] Each district smoke management program must include a daily prescribed fire authorization system

130 42 U.S.C. § 7401(a)(2).

131 40 C.F.R. § 50.14(b)(2).

132 17 C.C.R. §§ 80179-80330.

133 17 C.C.R. § 80110(a), (c).

134 17 C.C.R § 80110(b).

135 17 C.C.R. § 80110(c).

136 17 C.C.R. § 80120(e).

137 17 C.C.R. §§ 80140, 80145.

that regulates the amount of burning allowed on a daily basis. Projected air quality is to be measured against state standards, NAAQS, and regional haze requirements.[138] But air quality regulators also must consider more subjective standards under CARB regulations, such as ensuring that the amount of burning "minimize[s] smoke impacts on smoke sensitive areas, avoid[s] cumulative smoke impacts, and prevent[s] public nuisance."[139] As a result, air quality regulators have significant discretion to approve, deny, or condition permits. Conditions intended to reduce smoke impacts—such as burning hotter to create additional smoke lift—may create undesirable ecological impacts or more risky situations for burners.

The smoke management guidelines also require local air districts to figure out which agricultural burns and prescribed fires can proceed in order to minimize smoke impacts. To determine priority, districts are required to weigh the extent to which each burn contributes to safety, public health, forest health and wildfire prevention, ecological needs, economic concerns, and disease and pest prevention.[140] However, prescribed fires must also compete with other sources of pollution, including residential fires, industrial sources, transportation emissions, and wildfire, as air districts grapple with keeping pollution levels below applicable standards. This balancing has proven difficult when good prescribed fire conditions otherwise coincide with wildfire smoke or other pollution, especially from other areas.

These restrictions are particularly difficult to navigate for large, multi-day prescribed fires.[141] Because burn days are declared on a daily basis, burners run the risk of beginning a prescribed burn and then having to shut it down if air quality impacts change. Requiring the early termination of burns creates real risks to health and safety, particularly if that determination is made by a regulator who lacks on-the-ground knowledge of the operational realities of a particular burn.

## RECOMMENDATIONS

- **Recommendation 56.** The EPA should revise the Exceptional Events Rule to encourage greater prescribed fire use and enhance programmatic and procedural ease. In particular, the EPA should recharacterize prescribed fire as a "natural event," where it is consistent with fire regime histories or necessary for fire resilience or ecosystem function. The EPA should also reduce the burden of proof necessary to for states to demonstrate a "clear, causal connection" and should fund the collection of data, such as speciated particulate monitoring, that would ease the submission of Exceptional Events determinations. F [142]
- **Recommendation 57.** If procedural ease cannot be found, Congress should amend the federal Clean Air Act to (i) exclude prescribed fire emissions where intended to restore historic fire regimes and/or (ii) expand the use of the Exceptional Events Rule to more broadly allow exclusion of prescribed fire emissions and to streamline the submission process—such as, by allowing annual demonstrations for a particular region rather than requiring a new demonstration for each burn. F
- **Recommendation 58.** The Western Regional Air Partnership should broaden the categories of prescribed fire that count as "natural" for purposes of implementing the Regional Haze Rule. F
- **Recommendation 59.** Increase the frequency at which Air Districts permit prescribed fire:
  - The California Legislature should direct the Air Resources Board to continue to work with local air districts to maximize available burn days both under the existing framework and the new NAAQS. S
  - CARB should update its Smoke Management Guidelines to:
    - More effectively differentiate between agricultural and non-agricultural burns. At present, CARB uses the same meteorological criteria to determine the burn day designation for agricultural fire and prescribed fire.

138 *Id.*; *see* also 17 C.C.R. § 80101(c) (defining "air quality").

139 17 C.C.R. § 80145(a).

140 17 C.C.R. § 80145(m).

141 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018).

142 **Commission Recommendation 42** directs "EPA, DOI and USDA to work together to expeditiously evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire. Such an evaluation includes the exceptional events pathway and making any necessary changes to enhance programmatic and procedural ease and clarity while ensuring protection of public health, in a manner consistent with the Clean Air Act. Further, Congress should provide resources to ensure federal, state and local authorities can expand their capacity to document and exclude wildfire and beneficial fire smoke from regulatory significance." The recommendations contained herein would be a potential next step following the Commission recommended expeditious evaluation.

Differentiation would allow more effective prioritization and may allow more prescribed fire use if air district concerns relate to the Regional Haze Rule (as certain prescribed fire uses count as natural background conditions). S

- Ensure only objective standards can be used by air quality regulators in processing smoke management permits for prescribed fire, in order to provide greater certainty in the permitting process and reduce the likelihood that a small number of complaints will derail a proposed burn. Specifically, protections intended to prevent "nuisance" should be eliminated. S
- Permit beneficial burns on "no burn" days where existing local plans are in place to successfully mitigate modeled air quality impacts, such as community outreach coupled with a high efficiency particulate air (HEPA) filter loan program. S
- Allow prescribed fire use during smoke restrictions caused by wildfires when it can be shown that prescribed fire smoke will not significantly affect overall air quality levels. S

➤ **Recommendation 60.** Congress and the California Legislature should develop and fund smoke mitigation programs, such as requiring new home construction to include built-in HEPA filtration systems and creating incentives for renovations, or developing local HEPA filter loan programs for active beneficial fire programs. S F [143]

### BARRIER: Air Districts Lack Sufficient Resources and Expertise to Effectively Process Permit Applications.

Permit applications for prescribed fire generally require significant technical expertise to prepare and process. For example, prescribed fires of sufficient size and those located near smoke-sensitive receptors, such as schools or hospitals, require submission of a smoke management plan.[144] These plans must be submitted well in advance of a proposed prescribed fire and must contain substantial technical data, including estimates of the burn duration, identification and location of all smoke sensitive areas, a detailed meteorological prescription that must be met in order to conduct the burn, and contingency plans if smoke conditions become unacceptable.[145] The quality of an applicant's smoke management plan will vary based on the level of technical expertise the applicant has or can retain.

Likewise, each air district's ability to fully analyze an applicant's smoke management program will vary with the technical expertise and resources of the district. The disparate level of technical expertise and availability of air district staff means that applicants often face long lag times with respect to permit processing, and applicants with access to technical experts have a greater probability of obtaining permits.

143 **Commission Recommendation 43**: Invest in existing and new community and individual preparedness efforts, infrastructure development, public communication and engagement opportunities, and mitigation programs at the federal, state, local, Tribal, and territorial level to reduce smoke impacts to human health.

144 *E.g.*, NCUAQMD, Smoke Management Plan (SMP) Application, available at http://www.ncuaqmd.org/files/forms/NCUAQMD%20SMP%20Application%20Package%20(rev%201-21); https://www.ncuaqmd.org/files/dcb84be60/NCUAQMD+SMP+Application+Package+%28rev+1-21%29.pdf; *see also* 17 C.C.R. § 80160.

145 *See, e.g.*, NCUAQMD, Regulation II, Rule 206, available at http://www.ncuaqmd.org/files/rules/reg%202/Rule%20206.pdf; *see also* 17 C.C.R. § 80160; BAAQMD Form Rx-1, Prescribed Burning Smoke Management Plan, available at https://www.baaqmd.gov/~/media/files/compliance-and-enforcement/open-burning/rx_burn_smp_form.pdf?la=en ("All SMPs must be submitted to the Air Pollution Control Officer (APCO) for review at least 30 calendar days prior to the proposed burning (See Regulation 5, Section 408.1).").

Air district agency culture may also reduce the probability of timely obtaining a permit. Risk-averse staff may be less willing to issue prescribed fire permits, particularly if projects are located near sensitive receptors or regularly draw individual complaints. Both the Health and Safety Code and the CARB regulations that implement it (e.g., Title 17) contain broad prohibitions against public nuisance and impacts to health and safety.[146] However, neither provides clear guidance about what smoke impacts might constitute a public nuisance or an impact to health and safety beyond exceedances of health-based standards. Additionally, despite the California Legislature's statement of intent that burning should "not be prohibited,"[147] there is no consequence for air districts delaying or denying a permit. Overly cautious staff may thus be reluctant to issue burn permits where they perceive risk.

## RECOMMENDATIONS

- **Recommendation 61.** As explained above, CARB should revise the Smoke Management Guidelines to remove the discretion of individual districts and district staff to deny permits where an applicant meets objective requirements. CARB should require districts to develop clearer benchmarks for impacts of concern and establish a mandatory timeline to process permit applications. CARB should also require districts to consider the emissions tradeoffs of prescribed fire use versus wildfire. S
- **Recommendation 62.** CARB should encourage air districts to allow permits to be implemented within one or two years from the date of approval, rather than within the calendar year. This increased flexibility would buffer against delays in the permit process and prevent delays from becoming functional denials. S
- **Recommendation 63.** The California Legislature and CARB should provide air districts with more financial or technical resources to ensure that district staff can make timely, evidence-based decisions. SB 1260 directed the Legislature to appropriate funds for enhanced smoke monitoring,[148] but more directed funding is likely warranted. S
- **Recommendation 64.** Where applicants can demonstrate, using BlueSky or other accepted smoke modeling, that proposed burns will not cause harmful smoke impacts, CARB should require air districts to issue the permit. S
- **Recommendation 65.** Congress, the California Legislature, the EPA and/or CARB should determine how to support the preparation of needed Exceptional Events determinations for prescribed fire projects. The preparation of such technical materials should not be left to the individual burners. S F

146 Health & Saf. Code § 41700 ("a person *shall not* discharge from *any source* whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property") (emphasis added); 17 C.C.R. § 80145(a) (district's daily burn authorization system must "minimize smoke impacts on smoke sensitive areas, avoid cumulative smoke impacts, and prevent public nuisance").

147 Health & Saf. Code § 41850.

148 Pub. Resources Code § 4495.



## CHAPTER 8: LIABILITY

Given the importance of beneficial fire use—for risk reduction, ecological resilience, and a host of other benefits—appropriate mechanisms must be established to pay for inadvertent losses that may occur in connection with carefully performed burns conducted in the public interest. Although the benefits of beneficial fire use typically outweigh the risks, systems must be in place to compensate third parties for any potential losses. However, this liability burden should not fall on the private burner or cultural fire practitioner. Equally responsible are state and federal agencies which practiced decades of fire exclusion leading to fuels buildup and potentially lethal conditions.

In particular, criminalization of Indigenous burning practices infringed upon the sovereign authority of Tribes to be stewards of the land. Cultural fire practitioners today who are working to revitalize a traditional relationship with fire are confronted with the consequences of burning within this suppression-focused regime, including increased risk of high-severity or unpredictable burns, despite playing no part in the conditions that created it. As climate change plays a large role in intensifying wildfires, the United States as a whole must acknowledge and take responsibility for the resulting impacts to fire risk. Therefore, in the unlikely circumstance that a beneficial fire escapes, it is far more appropriate to consider a public liability than a private one, barring circumstances of gross negligence or willful misconduct.

Escape is indeed unlikely. Studies have shown that the use of beneficial fire is typically very safe. In 2022, the Forest Service reported that 99.84% of prescribed fires go according to plan. Likewise, a meta-study from March 2020 found an escape rate of less than one percent for over 23,000 burns.[149] Of those escaped burns, most were small, and only one resulted in an insurance claim. No lawsuits were filed as a result.[150]

However, despite the incredibly low likelihood of escape, a single, high-profile escaped burn can influence public

149 J. Weir et al, "Prescribed Fire: Understanding Liability, Laws and Risk" OSU Extension (March 2020).

150 *Id.*

perceptions surrounding the safety of beneficial fire use. Since the publication of the original *Good Fire*, the Calf Canyon and Hermits Peak Fire became the largest and most destructive wildfire in the history of New Mexico. The fire started from two separate events: the Hermits Peak Fire, which began when the Forest Service lost control of a prescribed burn, and the Calf Canyon Fire, which began when an improperly extinguished Forest Service pile burn operation from January rekindled, four months later. The fires resulted in a ninety-day pause in Forest Service prescribed fire operations, a new set of requirements for Forest Service ignitions, and a general loss of trust from the public in New Mexico and elsewhere.

Fixation, however, on the small number of escaped prescribed fires ignores both the low probability of escape and the high probability of wildfire when burns are not conducted. When considering the risks of prescribed fire, it is important to note that *not* conducting a prescribed fire may leave a property more vulnerable to damage for which no person or agency is liable under current law, such as lightening ignitions.

In the time since the publication of *Good Fire*, California has arguably made the most progress on addressing issues related to liability, in part because of the tireless advocacy of *Good Fire* contributors. First, Governor Newsom signed SB 332 into law in 2021. This bill, authored by Senator Bill Dodd, established a gross negligence standard for fire suppression and investigation costs, if certain conditions are met.[151] In other words, so long as burners or cultural fire practitioners act reasonably, and meet the other enumerated conditions, they should not receive a cost bill from CAL FIRE or another responder if they need to call for suppression assistance. Instead, public dollars will be used to foot the bills. While SB 332 marked an important move toward shared responsibility, it also partially infringed on Tribal sovereignty by implying that the state permitting system applies to cultural burning, which it should not, as discussed above.

Then, in 2022, prescribed fire advocates tackled third-party liability when Governor Newsom signed SB 926, again authored by Senator Bill Dodd. This bill sets up the Prescribed Fire Claims Fund Pilot, using $20 million previously secured from the California Legislature. Once enrolled, eligible prescribed fire and cultural burns are covered for up to $2 million in third-party losses, with payout primary to any available private insurance. However, while the Claims Fund has already spurred increased prescribed fire activity, it also continues to infringe on Tribal sovereignty in problematic ways.

California's current legal system still places all liability for fire impacts on the sources of ignition, though the state has started to address some of the barriers created by this system. Fundamentally, however, we must realize that ignition sources are not primarily responsible for the wildfire crisis. Instead, most fire-dependent and fire-adapted ecosystems have become significantly degraded and susceptible to high-severity wildfire because of fire exclusion and forest management practices. Forests today cannot tolerate ignitions that were previously met with resilience.

A true revolution would be to reimagine liability laws to address this reality. Today, we punish those who cause the spark—whether from a downed utility line, an equipment failure, or an escaped prescribed burn. But we place no liability whatsoever on the landowner, land management entity, or policymaker that created the fuels and forest structure emergency in the first place. Other fire-prone countries such as Australia have evolved to embrace a system of shared responsibility. This shift is needed in the United States as well. Landowners, land management entities, and policymakers should be pushed to undertake stewardship activities that leave the landscape able to receive ignitions, by making them responsible for the consequences of failing to do so. Otherwise, it will be easier for them to maintain the status quo, suppression-oriented approach.

### BARRIER: Liability Concerns Continue to Inhibit Burning.

Potential liability for damages or bodily harm caused by beneficial fire, particularly by any escape, is often cited as a barrier to further expansion of the practice. Landowners, organizations, and individuals may have a generalized fear about potential lawsuits, or may believe that the current liability standards in California—which maintains a modified simple negligence standard for third party losses but shifts to a gross negligence standard for costs associated with suppression or investigation—may be insufficiently protective. Liability concerns relating to the health and agricultural impacts of smoke—especially to the wine industry—may be a particular barrier to conducting prescribed fire due to the difficulty of proving or disproving causation. As a result, fire practitioners likely engage in fewer burns, smaller or less complicated burns, or no burns at all, as compared to what they would do if liability was

151 Civil Code § 3333.8.

less of a concern.[152] Moreover, the liability standard directly impacts both the availability of and perceived need for liability insurance, as discussed below.

## LIABILITY FOR THIRD-PARTY DAMAGES

Historically, California absolutely prohibited the use of intentional fire ("every person who willfully or negligently sets on fire any woods, prairies, or grasses on any lands is guilty of a misdemeanor").[153] The California Supreme Court ultimately struck down the statute, finding that it impermissibly interfered with property rights.[154]

However, modern tort law still places responsibility on burners. For third-party damages, California remains a modified "simple negligence" state. Specifically, any person "who personally or through another willfully, negligently, or in violation of law" sets fire or allows an escaped fire to damage another's property is liable for that damage.[155] Property owners as well as prescribed burn practitioners can be liable for third-party damage caused by fire escaping from their property if they are found to have failed to exercise "due diligence" to control the fire.[156] While these statutes refer explicitly to property damages, courts have held that burners and property owners can also be liable under these statutes for other harms, such as bodily injury, death, or smoke-related harms.[157]

The simple negligence standard is highly fact dependent. Typically, California law finds that a person acts with due diligence, and therefore is not negligent, if the person did what might reasonably be expected of a person of ordinary prudence, acting under similar circumstances.[158] Therefore, to evaluate if a burner or landowner was negligent, a court would be tasked with determining what the burner or landowner did to cause the burn, what a "reasonably prudent person" would have done under the circumstances, and how those two actions compare. These are not bright-line standards, which can create uncertainty for landowners and burners as to their potential liability.

In 2018, SB 1260 modified the simple negligence standard in a small way to help address some of this uncertainty. Specifically, if a burner obtained a burn permit, then state law provides that "[c]ompliance with the permit issued [] constitute[s] prima facie evidence of due diligence."[159] In other words, if the burner obtains a burn permit, and can demonstrate compliance with every term, then the burner will have proven—in the first instance—that their actions were not negligent and they should not be liable. The harmed party may rebut that showing, such as by proving that the burner did not comply with the terms of the permit, that the permit terms were not reasonable, or that the permit was obtained with false or misleading information.

Theoretically, this change in law made it easier for burners to defend against lawsuits seeking damages for escaped burns. Instead of needing to first establish what a "reasonably prudent person" would have done, and then comparing their actions to that standard, the burner need only compare their actions to the terms of the permit. This inquiry is less fact dependent and less subjective.

However, this small modification in the liability standard does not appear to have had much impact on reducing barriers to intentional fire in California. First, the rule is highly technical and difficult to explain to non-lawyers; most landowners and would-be burners are still likely to be concerned about liability. Second, the relaxed liability standard only applies if the landowner or burner actually obtained a burn permit. As explained in Chapter 9 below, there are parts of the year and geographic areas where burn permits are not required and therefore may be difficult to obtain. Cultural fire practitioners may also choose to forego state burn permits, which infringe on Tribal sovereignty. Third, burn permits can include many technical and arguably overbroad terms; lack of compliance with such terms may have little impact on actual risk but may have the unanticipated consequence of making it easier to prove liability.

152 *See, e.g.*, C. Wonkka et al., "Legal Barriers to Effective Ecosystem Management: Exploring linkages between liability, regulations and prescribed fire." Ecological Applications. (2015) ("Controlling for potentially confounding variables, we found that private landowners in counties with gross negligence liability standards burn significantly more hectares than those in counties with simple negligence standards.").

153 Pen. Code § 384 (repealed – Stats. 1939. Ch. 60).

154 *Garnier v. Porter*, 90 Cal.105, 108 (1891) ("It is not to be believed that it was intended by these penal laws to prohibit common farming operations.").

155 Health & Saf. Code § 13007.

156 Health & Saf. Code § 13008.

157 *E.g., Anderson v. U.S.*, 55 F.3d 1379, 1384, fn. 5 (9th Cir. 1995).

158 Negligence 1. [§ 956] Definitions., 6 Witkin, Summary 11th Torts § 956 (Definitions: Negligence) (2023).

159 Pub. Resources Code § 4494(b).

Finally, it is not clear whether the change in liability standard has actually reduced the likelihood that a landowner or burner would face a lawsuit if a prescribed fire escaped and caused damage. Even if a harmed third party is unlikely to ultimately prevail in litigation, they (or their insurance company) still may file a complaint hoping to reach a settlement.

## LIABILITY FOR SUPPRESSION COSTS

With the passage of SB 332, state law no longer holds burners responsible for fire suppression or investigation costs so long as they meet a gross negligence standard and comply with certain conditions. Specifically, SB 332 requires (i) that the burn be for the purpose of wildland fire hazard reduction, ecological maintenance and restoration, cultural burning, silviculture, or agriculture; (ii) when required, a state certified burn boss[160] review and approve a written prescription for the burn; (iii) that the burner obtain required permits; and (iv) that the burner have permission from the landowner or a California Native American Tribe to burn.[161] As discussed above in Chapter 1, cultural fire practitioners are provided unique treatment given traditional practices, though permitting issues remain a concern. There is hope that SB 310, if passed, may be able to address some of these permitting issues via sovereign-to-sovereign agreements between the State and individual federally recognized Tribes.

## AGENCY LIABILITY

State and federal employees have different liability considerations. Generally, state and federal employees will not be held personally liable for property damage or bodily injury caused by a prescribed fire set in the course of their employment.[162] Personal liability only attaches if the employee is found to be acting outside of the scope of their work.[163] Nevertheless, some agency employees cite concern about personal liability as a barrier.[164]

Even if agency employees are unlikely to be held personally liable, the agency may still be held responsible and ordered to pay damages. For example, the Forest Service can be held liable under the Federal Tort Claims Act for an escaped burn if a private person would be liable to the claimant in analogous circumstances, though a significant exception exists for activities that involve the exercise of "discretionary function."[165] Concerns about agency liability—and resulting impacts on an individual's career and livelihood—are therefore noted as barriers to increased use of prescribed fire.[166] In addition, the application of the Federal Tort Claims Act to cooperators burning on federal land has been unclear, making it more difficult to shift to an "all hands, all lands" model.

### RECOMMENDATIONS

- **Recommendation 66.** The California Legislature should adopt a gross negligence standard in California for damages outside of suppression costs. While SB 332 ensures that responsible burners will not be held liable for suppression costs, concerns remain about other kinds of damages, including property damage, bodily harm, and damage or harm caused by smoke. S
  - In particular, concern about liability for smoke may be particularly daunting. In recent years, prescribed burners have faced pressure from California wineries, among others, who believe that prescribed burns may contribute to smoke taint. Adopting a gross negligence standard for claims arising from smoke, as is the case in South Carolina, could relieve these concerns for prescribed burners and insurers. S
- **Recommendation 67.** The California Legislature should adopt an immunity statute. Based on conversations with insurers, the gross negligence standard alone is unlikely to result in a significant reinvestment in the California prescribed fire insurance market. However, a statute that provides complete immunity would likely have the desired effect. While such a change may be politically difficult, it is not without precedent. California's Recreational Use Statute provides that a property owner "owes no duty of care" and is therefore

160 SB 310, pending in the California Legislature as of March 2024, would expand the category of burn bosses able to review and approve written burn plans.

161 Civil Code § 3333.8.

162 *E.g., Pyne v. Meese*, 172 Cal.App.3d 392, 405 (1985). CAL FIRE and its employees also have statutory immunity from suit for many of their activities. *See, e.g.*, Gov. Code §§ 850, 850.2, 850.4.

163 *E.g., White v. Towers*, 37 Cal.2d 727, 733 (1951).

164 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities," Ecosystem Workforce Program Working Paper (Summer 2018) ("Some burners, especially with the Forest Service, said they were not always sure the agency would support them in case of an escape, whereas others felt confident that they would have legal protection from the agency as long as they acted within the scope of their duties and parameters of their burn plans. Some said they were encouraged to hold private insurance; others said this was not necessary.")

165 28 U.S.C. §§ 1346(b), 2674; *Rayonier Inc. v. United States*, 352 U.S. 315 (1957); *Anderson v. United States*, 55 F.3d 1379 (9th Cir. 1995).

166 C. Schultz et al., "Prescribed Fire Policy Barriers and Opportunities." Ecosystem Workforce Program Working Paper (Summer 2018).

immune from suit by people using such land for any recreational purpose.[167] In that statute, exceptions are provided only for "[w]illful or malicious failure to guard" or instances where the property owner is paid or expressly invites people to recreate on the land.[168] Different exceptions would likely be necessary for any analogous prescribed fire statute. Changes to the liability standards under these two recommendations may be more palatable now that innocent third parties can be compensated out of the Prescribed Fire Claims Fund. S

- **Recommendation 68.** Congress should consider and clarify the extent to which the Federal Tort Claims Act provides protection to Tribes and non-federal cooperators burning on federal lands. F [169]
- **Recommendation 69.** State and federal agencies should increase education among agency staff related to potential liability issues, to provide assurance that agency staff will not face personal liability and to clarify the limited circumstances in which the agency may be liable. S F
- **Recommendation 70.** Congress and the California Legislature should consider initiating a broader review of the framework for fire-related liability, to recognize that property owners and other interested parties (such as insurers) that fail to adequately maintain the fuels on their property should be more culpable than burners who are investing in proactive land management. S F
- **Recommendation 71.** The federal Executive Branch should ensure that the gross liability standard enacted by SB 332 applies to federal agencies, including the Forest Service, within the state of California. If agencies are unwilling or unable to confirm it will follow the standards set by SB 332, Congress should consider enacting federal legislation that mirrors California's liability standards for suppression-related costs. F
- **Recommendation 72.** As discussed above, the California Legislature should ensure that cultural fire practitioners can access the gross negligence standard for suppression costs and the Prescribed Fire Claims Fund Pilot without having to compromise their sovereignty by submitting to state permitting processes. SB 310 would be one way of accomplishing this recommendation. S

It should be noted that a gross negligence standard, or even an immunity standard, will not prevent all potential litigation or exposure to damages, nor should it. For example, the 2018 Valley Fire in Nevada, which had been set by the Nevada Division of Forestry and later rekindled, destroying numerous homes, resulted in multiple lawsuits. After a jury found the Division to be grossly negligent, the state ultimately settled for $25 million.[170] Notably, the Division had failed to comply with many basic standards of responsible fire management.

### BARRIER: Insurance Products are Unavailable, Expensive, or Inadequate.

At this time, the majority of organizations, burn bosses, and landowners with coverage for prescribed fire have grandfathered policies, meaning that the insurance company is willing to keep the coverage in place only for existing customers. Such policies are increasingly expensive. In 2020, one of the main insurers providing insurance for prescribed fire in California, AGCS Marine/Allianz Insurance, dropped these policies or amended them to exclude prescribed fire activities. Moreover, many policies only provide $1 or $2 million in coverage, which may be insufficient in the event of a significant escaped fire. Perhaps of greater concern, some organizations report that their general commercial liability policies will be voided if they conduct or participate in prescribed fire, thus putting the organization in significant risk for any participation.

In 2022, Senator Dodd's SB 926 established the California Prescribed Fire Claims Fund pilot through 2028. This $20 million fund is a "first dollars" fund, providing up to $2 million in coverage to burners and cultural fire practitioner who apply through CAL FIRE for protection under the fund. This fund was designed to address the insurance industry's stated concern about exposure for the "first million" in coverage. Since its roll-out, many burners have taken advantage of this first-come, first-serve fund. As of March 2024, however, broader availability for insurance coverage for claims beyond $2 million has not yet followed.

Access to insurance products or claims funds may be of particular importance to cultural fire practitioners. Given the need to protect Tribal sovereignty, as discussed above, cultural fire practitioners may be unwilling to take

167 Civil Code § 846(a).

168 Civil Code § 846(d).

169 **Commission Recommendation 11**: Congress should consider and clarify the extent to which the Federal Tort Claims Act provides protection to Tribes and non-federal cooperators burning on federal lands.

170 S. Sonner, "Nevada AG recommends $25M settlement in Little Valley Fire." Reno Gazette Journal (June 12, 2019), available at https://www.rgj.com/story/news/2019/06/12/nevada-ag-recommends-25-m-settlement-little-valley-fire/1435711001/.



steps that would otherwise shield them from suppression costs or third-party liability—i.e., obtaining CAL FIRE and other state regulatory permits. Unless these issues are addressed through further state legislation and action (such as SB 310, and development of agreements pursuant thereto), and done so in a way that respects Tribal sovereignty and limited capacity, it may be particularly important for the federal government to provide a backstop in furtherance of its trust responsibility to Tribes. While regulation of insurance markets is generally seen as a state policy issue, both the impacts on federally recognized Tribes and the role of the multi-state reinsurance market—which underwrites many state-based insurance companies—both provide solid footing on which the federal government could act.

## RECOMMENDATIONS

- **Recommendation 73.** The California Legislature should monitor and require reporting on the Prescribed Fire Claims Fund Pilot, provide additional funding if necessary to ensure its success, and ensure the Fund is permanently reauthorized at the end of its initial pilot period. CAL FIRE should continue to review and modify its implementation to meet the needs of the beneficial fire community and the insurance market and provide sufficient data to the Legislature after the first three years to ensure the Fund can be made permanent. S
- **Recommendation 74.** Congress should bring federal dollars to support beneficial fire practitioners and third parties inadvertently harmed by rare escapes. Specifically, Congress should establish a national claims fund, or provide financial support to state-led systems and study how such funds impact private insurance markets in order to entice insurers back into the market. In developing the fund, Congress should ensure that Tribal sovereignty is adequately protected. F [171]

171 **Commission Recommendation 10**: Congress should advance legislation to support a compensation or claims fund for burn damages to third parties that can quickly provide financial relief in instances when burn practitioners adhere to identified best practices; **Commission Recommendation 69**: Congress should request a comprehensive study on the relationship between financial protection solutions available through the private market and federal disaster recovery to support federal efforts to modernize federal post-disaster recovery benefits that ensure resources are complementary rather than conflicting.

**Barriers and Recommendations Primarily Relevant to Prescribed Fire Practitioners**

The discussions and recommendations in *Good Fire II* have intentionally centered the practices and needs of the cultural fire practitioner community. However, many Tribes are supported by or benefit from the work of community-based non-governmental organizations or prescribed burn associations, which are engaged in prescribed fire activities. These organizations must engage with and address the state permitting and environmental review structures related to prescribed fire. For this reason, these topics are included herein. Nothing in these two Chapters are intended to imply that state permitting or regulatory structures apply to or should apply to sovereign cultural practices or Indigenous stewardship activities.



# CHAPTER 9: CAL FIRE

The original *Good Fire* recommended that CAL FIRE develop an accurate website, create objective standards and publicly available conditions for approval of burn permits, eliminate availability of CAL FIRE standby fire protection as a factor for consideration, and allow CAL FIRE notification in lieu of permits for certain burns. In the years since, progress has been made in resolving some of these barriers. Moving forward, transparency throughout the permitting process and continued efforts to ensure Tribal sovereignty with respect to beneficial fire are critical areas for continued improvement.

State law requires landowners or managers to obtain "a written permit" prior to burning "any brush, stumps, logs, fallen timber, fallows, slash, grass-covered land, brush-covered land, forest-covered land, or other flammable material."[172] This requirement has both geographic and timing restrictions. Permits from CAL FIRE are only required in State Responsibility Areas[173] or areas receiving fire protection by the Department by contract, though

172 Pub. Resources Code § 4423.

173 State Responsibility Areas define the area where CAL FIRE has financial responsibility for fire suppression and prevention and are established by the Board pursuant to Public Resources Code section 4125. These areas can be viewed here: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=468717e399fa4238ad8688163876 5ce1. State Responsibility Areas encompass 31 million acres of public and private lands. *See* Vegetation Treatment Program Programmatic Environmental Impact Report (November 2019).

similar burn permits are required in local responsibility areas. Permits are required year-round in Mono, Inyo, San Bernardino, Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Diego, and Imperial Counties.[174] Otherwise, permits are only required between May 1st and the end of fire season, as declared by the CAL FIRE Unit Chief for each district, or during "unusual fire hazard conditions."[175]

Sections 4491–4494 of the Public Resources Code further describe the process for obtaining CAL FIRE permits for prescribed fire. Any "person, firm, or corporation" that owns or controls lands within the State Responsibility Area may apply to CAL FIRE for a burn permit.[176] The application must "contain a description of the lands and other pertinent information."[177] In response, CAL FIRE must inspect the land and make a discretionary determination as to whether to issue the permit. State law provides CAL FIRE with wide latitude, allowing it to "prescribe the manner in which the site for the prescribed burning shall be prepared" and to impose "any precautions . . . as may be considered reasonable" including "advance preparation of firebreaks" and the specific "firefighting equipment and personnel."[178]

Although CAL FIRE retains discretion to decline to issue prescribed fire permits or impose conditions,[179] recent efforts have streamlined the permitting process. AB 642 required the development of "an automated system" for issuing burn permits, which CAL FIRE fulfilled through the development of an online burn permitting application.[180] Where historically individual stations may have had different requirements for burn permit approval, the online system has created more uniformity. At the time of this writing, however, CAL FIRE has not made publicly available the criteria it uses to evaluate burn permit applications, which continues to result in some confusion and uncertainty for burners.

CAL FIRE generally issues three types of permits for prescribed fire. An LE-62A (Residential Burn) permit is for standard burn piles.[181] An LE-5 (General Burn) is for "non-standard piles" and can include "small parcels or strips, small plots of grass or weeds, or burn[s] on vacant land" as well as "agricultural burning."[182] And LE-7 (Broadcast Burn) permits are for "Project Type Burns." LE-7 permits generally incorporate a Form LE-8 as well, which sets forth the "Minimum Precautions for Project Type Burning." Through this form, the Department can "provide direction or technical advice on ways to conduct an effective burn based on the local knowledge of weather, vegetation, topography, fire history, and any other relevant factors."[183] Notably, CAL FIRE does not make this information readily available to the public, although CAL FIRE's burn permit website has been updated to provide prospective burners with more information about whether an LE-7 permit is appropriate and no longer exclusively discusses CAL FIRE-led prescribed burn efforts.

### BARRIER: CAL FIRE Sometimes Refuses to Issue Permits or Overly Conditions Permits.

Private burners cite three reasons why CAL FIRE staff will deny permits, even when the private burner has planned to ensure public safety.[184] First, CAL FIRE determines that the proposed burn is too dangerous. Under current CAL FIRE procedures, this can occur even if the permittee's burn plan demonstrates that the proposed burn can be completed safely and within prescription.

Second, CAL FIRE is unable to provide standby fire protection because CAL FIRE crews are actively involved in suppression efforts either within the district or elsewhere in the state. Recent updates to Public Resources Code section 4493(b) require CAL FIRE to consider the availability of "nondepartmental contingency resources when determining whether to require department contingency resources as part of the required precautions." However, this is a suggestion, not a requirement, and leaves open the opportunity for CAL FIRE to deny permits even if the burner

174 These counties are known as "Zone A," where permits area always required. Pub. Resources Code §§ 4413, 4423(a).

175 Pub. Resources Code § 4423(b).

176 Pub. Resources Code § 4492.

177 *Id.*

178 Pub. Resources Code § 4493.

179 Pub. Resources Code § 4494.

180 https://survey123.arcgis.com/share/00ee61c040784b378f66e969570ba668.

181 B. Mattos, CAL FIRE Prescribed Fire Planning & Permitting Power Point.

182 *Id.*

183 *Id.*

184 CAL FIRE staff has also recognized these parameters: "Burn permits may be suspended at any time due to adverse weather conditions, adverse burning conditions, or state-wide incident activity resulting in CAL FIRE resource draw down." *See* B. Mattos, CAL FIRE Prescribed Fire Planning & Permitting Power Point.

demonstrates adequate backup capacity without CAL FIRE (such as local fire district support).

Finally, CAL FIRE might deny permits if it believes that CAL FIRE staff may be unable to provide standby fire protection because of high fire *risk* elsewhere in the district or elsewhere in the state, even without active firefighting efforts. Again, permits may be denied even if the burner demonstrates adequate backup capacity without CAL FIRE (such as local fire district support).

In addition, some private burners indicate that CAL FIRE sometimes requires greater precautions, equipment, and personnel than warranted by the burn plan. These requirements can add unexpected costs and delays.[185] Others, however, indicate that CAL FIRE feedback and conditions generally improve the burn. Historically, there has been significant variability on required resources based on local CAL FIRE battalion chiefs and their relationships with private burners in their area. However, CAL FIRE's updated online permitting system may reduce some of this geographic variability.

## RECOMMENDATIONS

- **Recommendation 75.** CAL FIRE staff should publish clear criteria for burn permit evaluation on CAL FIRE's website; continue to update CAL FIRE's website for prescribed fire with advice on ways to conduct an effective burn; and educate agency staff regarding requirements. S
- **Recommendation 76.** The California Legislature should amend sections 4491–4494 of the Public Resources Code to make it easier for burners to obtain permits for broadcast burning. Potential amendments include: mandating that CAL FIRE develop a ministerial program for considering LE-5 and LE-7 permits, with objective standards and established, publicly available conditions (i.e., so long as a burn plan meets certain conditions, then permit will be issued); establish that burners have a right to burn; set a timeline for decisions; mandate that permits have longer terms; eliminate availability of CAL FIRE standby fire protection as a factor for consideration, so long as the permittee provides sufficient crews; and eliminate wildfire risk in other parts of the state as a factor of consideration. S
- **Recommendation 77.** The California Legislature should amend the Public Resources Code to allow CAL FIRE notification in lieu of permits for specified types of prescribed burns, such as maintenance burns or in recent fire scars. S

185 To the extent that such requirements are difficult to follow, they may also jeopardize the ability of the burner to show full compliance with the burn permit and the resulting prima facie showing of due diligence. *See* Chapter 8.



## CHAPTER 10: ENVIRONMENTAL REVIEW

For certain burns, completion of environmental review at both the federal and state level can create significant impediments. Environmental review processes are well intended and often serve important disclosure and mitigation purposes, yet also result in unintended consequences. Project delays, resource requirements, and litigation risk are all some of the downsides created by these statutes.

It is worth emphasizing at the outset that environmental review should not apply to cultural burns under any circumstance, unless a Tribe agrees to receive significant federal or state funding for the burn that requires agency compliance. Cultural burning is a right exercised under Tribal law, as described in Chapter 1, and is not subject to the approval of a federal or state entity that would trigger environmental review compliance.

While this Chapter highlights compliance with state and federal environmental disclosure statutes, other environmental statutes can also create delay or other unintended consequences. For instance, compliance with the Endangered Species Act (ESA) has held up beneficial fire projects, even though fire restoration is often necessary to support the health of endangered and threatened species and the habitats on which they depend. Efforts to ensure that ESA compliance does not delay projects needed to support species and ecosystem health are therefore warranted.[186]

### NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) requires federal agencies to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. Any on-the-ground action taken by a federal agency must have completed NEPA compliance. Depending on the degree of potential environmental impacts, proposed projects are classified as requiring analysis in one of three ways: through a categorical exclusion (CE), environmental assessment (EA), or environmental impact statement (EIS).

Proposed actions may receive a CE designation because they fall under a project type that has been statutorily excluded from NEPA review or been previously found to

186 Further discussion of the Endangered Species Act can be found in the Karuk Eco-Cultural Revitalization Plan at https://www.karuk.us/images/docs/dnr/ECRMP_6-15-10_doc.pdf

not have significant environmental impact. Even making this determination, however, may require an agency to conduct biological resource and archaeological surveys before moving forward with the project to document that no "extraordinary circumstances" exist that would take the project outside of the exemption.[187] Though sometimes important, these can be expensive and time-consuming.

Some agencies have determined that certain types of prescribed fire activities are categorically excluded from NEPA. For instance, the Forest Service has determined that certain timber stand and/or wildlife habitat improvement activities are categorically excluded, including "prescribed burning to reduce natural fuel build-up and improve plant vigor."[188] Likewise, the BLM has determined that prescribed burns of less than 4,500 acres are categorically excluded if certain conditions are met.[189] The BIA—which currently asserts approval authority for prescribed fire activities on lands held in trust for Indian Tribes, thus triggering a federal action—similarly excludes prescribed burns of less than 2,000 acres.[190]

On the other end of the review spectrum, an EIS requires significant documentation discussing the likely environmental impacts of proposed actions, potential actions to avoid damages, and responses to public comments. If there is uncertainty as to whether a proposed action will significantly affect the environment, the agency will pursue an EA that involves scoping, analysis, and a public comment period to show that an action has either no significant impact or requires further analysis through an EIS.

Another mechanism for NEPA review is known as "tiering." When an agency has already prepared an EIS or EA for a plan, program, or policy, specific projects to implement that plan, program, or policy can often refer back to the broader analysis already completed. The tiered document then focuses only "on the issues specific to the subsequent action."[191] Consequently, an agency may be able to use the shorter and less intensive EA for a particular project and simply refer back to the EIS prepared for the broader plan, program, or policy. Of course, tiering only works if the agency has already undertaken the broader NEPA review. Some federal agencies have found that this approach can be effective; once they invest resources in the high-level plan and document, further review is quicker and more efficient. However, some federal agencies report the difficulty of actually adopting the higher-level document prevents it from reaching the stage at which the agency would have something to tier from.

Just about half of all Forest Service projects involving prescribed burns receive a CE designation, while 43% require an EA and the remaining 6.5% require an EIS.[192] Across these categories for all prescribed burn projects, it takes an average of 4.7 years to begin on-the-ground treatments once the Forest Service initiates the environmental review process.[193] No matter the designation, NEPA takes time and staff capacity for any and all projects. There are also indirect factors that contribute to delays in the environmental review process, such as agency officials requiring more analysis or processing time to proactively avoid future litigation.

Crucially, however, all prescribed fire must be consistent with the underlying land use or land management plans established by the federal agencies. This advanced planning requirement is often where prescribed fire can face significant NEPA review. For instance, National Forests in California have been updating their Forest Plans to better allow prescribed and managed fire use; even for relatively small amendments, the NEPA process has taken multiple years. In the northern part of California, the delay has been even longer, as National Forests await amendment to the Northwest Forest Plan before beginning individual updates. Likewise, the BIA asserts that it must approve Forest Management Plans and burn plans for trust lands before Tribes can engage in prescribed fire projects on those lands. NEPA review is required for adoption of such plans.[194]

187 40 C.F.R. § 1501.4.

188 36 C.F.R. § 220.6(e)(5).

189 BLM Department Manual, Part 516, Chapter 11.9(D)(10).

190 BIA Department Manual, Part 516, Chapter 10.5(H)(9).

191 40 C.F.R. § 1501.11(b).

192 PERC Policy Brief, "Does Environmental Review Worsen the Wildfire Crisis" (June 2022).

193 PERC Policy Brief, "Does Environmental Review Worsen the Wildfire Crisis" (June 2022).

194 *See, e.g.*, BIA Department Manual, Part 516, Chapter 10.5(H)(9) (categorical exclusion applies to prescribed burning only when done "in compliance with policies and guidelines established by a current management plan addressed in earlier NEPA analysis").

## CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) is California's environmental review statute, which requires all public agencies to evaluate the potential environmental impacts of their actions in advance of decisionmaking, and to either mitigate or avoid any significant environmental impacts if feasible.[195] Typically, CEQA compliance is required for prescribed fire activity either undertaken by or funded by CAL FIRE or another state or local agency. Notably, because issuance of burn permits and air quality permits are considered "ministerial," a permitted prescribed fire undertaken without CAL FIRE or other state and local assistance generally will not be subject to CEQA review.[196]

CAL FIRE and other agencies can meet their CEQA obligations through a number of different procedural routes, including use of categorical exemptions, reliance on the 2019 California Vegetation Treatment Program (CalVTP) Environmental Impact Report (EIR), use of existing NEPA documents, or preparation of a stand-alone mitigated negative declaration (MND) or environmental impact report). Each option is discussed in turn.

### Categorical Exemption under CEQA

Categorical Exemptions provide one of the quickest paths to CEQA compliance, but they are not a complete solution. CEQA requires the Secretary for Resources to develop "a list of classes of projects that have been determined not to have a significant effect on the environment" and are therefore exempt from CEQA.[197] Prescribed fire projects may fall within two of these classes. First, Class 1 includes the "operation, repair, maintenance, …or minor alteration of existing public or private . . . topographical features, involving negligible or no expansion of existing or former use."[198] CAL FIRE and the Department of Parks and Recreation have both relied on this exemption for prescribed fires that involve the maintenance of existing fuel breaks or other "topographical features."[199] This Class may not be appropriate, however, for prescribed fire activities in new areas.[200]

Second, Class 4 includes "minor public or private alterations in the conditions of land…and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes."[201] Between 2018 and 2020, CAL FIRE filed notices of exemption for at least a half-dozen prescribed fire projects ranging in size between 7 acres and 261 acres, all relying on the Class 4 exemption.[202] Burners also report that CAL FIRE has occasionally applied categorical exemptions for projects that include multiple burn units adding up to nearly 2,000 acres, though use of CEs for such large projects are rarer.

One impediment to the efficient use of these categorical exemptions stems from the fact that categorical exemptions are not absolute. Specifically, if an agency determines that a proposed activity falls within one of the classes, it still must conduct additional analysis to determine if one of the "exceptions to the exemptions" apply, such that additional CEQA analysis is required.[203] Projects involving burns in or near critical habitat, environmentally sensitive areas, or historic or Tribal cultural resources may invoke some of these exceptions.[204] Depending on agency culture and risk tolerance, different agencies will have different analysis and documentation requirements for these exceptions.

### CAL FIRE Vegetation Treatment Program Programmatic EIR

At the end of 2019, the Board of Forestry and Fire Protection adopted the CalVTP and its associated Programmatic Environmental Impact Report (PEIR). The CalVTP was prepared to support the significant expansion of CAL FIRE's vegetation treatment activities, including

195 *E.g.*, Pub. Resources Code § 21002.

196 Pub. Resources Code § 21080(b)(1) ("Ministerial projects" are not subject to CEQA); B. Mattos, CAL FIRE Prescribed Fire Planning & Permitting Power Point ("The LE-5 and LE-7 are non-discretionary and don't require CEQA.").

197 Pub. Resources Code § 21084.

198 CEQA Guidelines § 15301.

199 Most state agencies promulgate regulations explaining how the agency will comply with CEQA. As part of these regulations, most agencies—including CAL FIRE—explain how the different categorical exemptions will apply to their specific activities.

200 While Class 1 includes efforts to operate or maintain the landscape to a "former use," former has generally been interpreted as the recent past. *See* California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines (Nov. 2018). Class 1 is not likely appropriate for prescribed burns that return the landscape to a historical, pre-suppression state.

201 14 C.C.R. § 15304.

202 *See, e.g.*, https://ceqanet.opr.ca.gov/2013068416; https://ceqanet.opr.ca.gov/2019048281/2; https://ceqanet.opr.ca.gov/2020060026/2; https://ceqanet.opr.ca.gov/2020110153/2.

203 14 C.C.R. § 15300.2.

204 *Id.*

prescribed fire, to reach approximately 250,000 acres treated annually.[205]

One significant goal of the CalVTP is to further streamline CEQA review for projects undertaken or funded by CAL FIRE and other state and local agencies.[206] Specifically, the CalVTP PEIR is intended to function as a sort of "umbrella" environmental review—if later activities fall within the scope of the PEIR, then no new environmental documents are required.[207] Instead, the relevant agency must then ensure compliance with numerous "Standard Project Requirements" in order to rely on the CalVTP PEIR.[208] These Standard Project Requirements are long, detailed, and at times quite onerous, including biological and archaeological surveys, geological evaluations, erosion monitoring, and special protections for riparian areas and other water resources. On balance, most burners are likely addressing these issues through their burn plans or other project design. However, the CalVTP imposes these specific and mandatory ways of addressing each of these issues in order to qualify for CEQA clearance under the document. The lead agency must also evaluate whether any of the PEIR's mitigation measures—which are separate from the Standard Project Requirements—are applicable to the project. Some of these mitigation measures are significant, including implementation of specific burning methods to reduce greenhouse gas (GHG) emissions, the use of exhaust emission reduction technologies for equipment, and specific mitigation for potential impacts to special status species and their habitats. Comparing the Standard Project Requirements with prior CAL FIRE categorical exemptions, it appears that the CalVTP program may actually increase the amount of environmental analysis that must be done to approve a prescribed fire.

### Federal Environmental Review

For state projects on federal land, CEQA lead agencies may also rely on existing NEPA documentation. The GNA allows federal forest agencies to enter into agreements with state forest agencies, counties, and federally recognized Tribes to carry out restoration projects on federal lands.[209] The GNA generally operates via cooperative agreements, which provide federal funds to non-federal partners to provide restoration services on Forest Service or BLM land. Federal law applies to these projects, including the NFMA, any applicable Forest Land Management Plan, and NEPA. Thus, for GNA projects, NEPA review will be completed by the federal agency.

In recognition of the state or local agency's limited role—providing funding and staffing—and the existence of federal environmental review, the state has provided a statutory CEQA exemption for such agencies, even if the state agency or county issues permits or provides other approval.[210] Consequently, no CEQA compliance is required, though this authority will sunset in 2028.

### Mitigated Negative Declarations and Environmental Impact Reports

Finally, to the extent a prescribed fire requires CEQA clearance but does not qualify for a categorical exemption, for streamlining under the CalVTP PEIR, or for joint federal-state review, CAL FIRE or the other lead agency can conduct environmental review.

Lead agencies typically have two options. First, if there is "no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment," then the lead agency may prepare a negative declaration.[211] If mitigation measures are necessary to ensure that the project does not have a significant effect on the environment, then the lead agency may prepare a mitigated negative declaration, which makes such a measure mandatory.[212] Mitigated negative declarations are often significantly shorter and less complex than EIRs, and therefore are less time consuming and expensive to prepare.

If the proposed project may have a significant effect on the environment that cannot be mitigated to less-than-significant, then the lead agency must prepare a full EIR.[213] EIRs must include robust discussions of potential impacts

205 CalVTP FPEIR at ES-2. The 250,000-acre goal is intended to cover CAL FIRE's portion of the 500,000-acre annual non-federal treatment goal established by Executive Order B-52-18.

206 CalVTP FPEIR at ES-2.

207 14 C.C.R. § 15168(c)(2) (If the agency determines there is no new, relevant information, "the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.")

208 CalVTP FPEIR at PD-3, pp. 37-71.

209 The 2018 Farm Bill extended the GNA to federally recognized Tribes.

210 Pub. Resources Code § 4799.05(d).

211 14 C.C.R. § 15070(a).

212 14 C.C.R. § 15071(e).

213 Pub. Resources Code § 21082.2(d).

and mitigation measures,[214] as well as consideration of alternatives,[215] cumulative impacts, and other mandatory topics.[216] EIRs must be circulated for public comment, and lead agencies are required to prepare comprehensive responses to such comments prior to action on the proposed project.[217] The preparation of an EIR is complex, expensive, and long—most EIRs take at least six to nine months to prepare and consider, and often significantly longer.

### BARRIER: Environmental Reviews Fail to Acknowledge Fire as a Natural Process.

Despite efforts to streamline environmental review for prescribed fire, compliance with both NEPA and CEQA remains a significant barrier to efficiently expanding the use of prescribed fire. Burners report that the time and expenses spent completing environmental review and associated analysis often exceed the cost of implementation, and result in no significant substantive changes to the burn plan, smoke plan, or other standard efforts to mitigate potentially significant environmental impacts. Tribes and private burners also report a disincentive for seeking public grants or other partnerships, given that agency involvement also brings the associated environmental review.

Many of these issues arise because environmental review has largely failed to treat fire as a natural process. Rather than considering fire restoration activities as an agency action or project with potential for significant environmental impacts, agencies should recognize that ecosystems have co-evolved with the historic presence of fire from both lighting strikes and Indigenous burning practices. As such, fire—especially at ecologically appropriate intervals—is part of the baseline environmental conditions of most landscapes. Rather, fire *exclusion* and barriers to the exercise of Indigenous stewardship is the human activity that has proven to most significantly impact both the environmental and human health.

However, fire exclusion actions have never undergone CEQA or NEPA analysis. These decisions have resulted in profound and documented impacts to fire-dependent and fire-adapted ecosystems and Indigenous cultures. The case can no longer be made that current wildfires, and their resultant size and severity, are "natural" events, but are clearly tied to suppression actions. Reconsideration of NEPA and CEQA in this context is necessary to promote prescribed fire use and disincentivize continued suppression activities, especially where lives and infrastructure are not at immediate risk.

Current applications of NEPA and CEQA ignore the fundamental difference between prescribed fire and other human activities, such as logging or development of infrastructure, and continue to suggest that environmental review is necessary in order to ignite fires in fire-dependent and fire-adapted ecosystems. Reconsideration of this approach would better align desired forest management outcomes with associated regulatory burdens.

#### RECOMMENDATIONS

- **Recommendation 78.** Federal and state agencies should find that fire use consistent with ecologically based fire regimes is part of baseline environmental conditions, and therefore not a "major federal action" subject to NEPA review or a "project" subject to CEQA review. If necessary, Congress and the California Legislature should enforce this position with congressional or legislative findings. Alternately, Congress and the California Legislature should require fire management agencies to analyze the impacts of fire exclusion. Until this analysis is completed, ignitions at times and locations consistent with pre-European fire regimes and IKPBS should be considered baseline environmental conditions. S F
- **Recommendation 79.** Federal and state agencies should train their staff and consultants conducting environmental review on the historical presence of fire in many ecosystems, such that analysis better takes into account these historic baselines and fire-adapted ecosystems. S F
- **Recommendation 80.** Federal and state agencies should ensure that in the consideration of alternatives, the risk of uncharacteristically intense wildfire is included in the discussion of the no action or no project alternative. S F

214 14 C.C.R. §§ 15126.2, 15126.4.

215 14 C.C.R. § 15126.6.

216 14 C.C.R. § 15130.

217 14 C.C.R. § 15088.

### BARRIER: Environmental Review is Slow and Costly.

As explained above, existing mechanisms for environmental review are cumbersome, slow, and costly. These additional processes do not meaningfully change the ways that prescribed fire projects are being implemented, and instead result in less work being accomplished. Moreover, while both NEPA and CEQA include consultation requirements, information about Tribal cultural resources is not always effectively included or addressed due to poor consultation efforts or lack of funding to support Tribal participation. In addition to rethinking the application of NEPA and CEQA to fire use, there are a host of additional ways that environmental review can be made more effective.

#### RECOMMENDATIONS

- **Recommendation 81.** Congress and the California Legislature should provide agencies additional leeway to rely on equivalent state and/or federal analysis already completed. Reviews should be coordinated to reduce the need for duplicative analysis and to streamline the process, rather than making it more complicated. S F
- **Recommendation 82.** Federal and state agencies should continue to explore mechanisms to expedite and improve internal processes around environmental review, and to share success stories. Particular areas of focus should be in information gathering, training, staffing, collaboration, and programmatic analysis. S F [218]
- **Recommendation 83.** The California Secretary of Natural Resources should modify the examples contained within the CEQA Guidelines for Class 1, Class 4, and Class 7 to better facilitate the applications of such exemptions to prescribed fire. In particular, the fuels modification example provided as part of the Class 4 exemption[219] should be modified to include larger or more remote prescribed fires. S
- **Recommendation 84.** The California Legislature (or the Secretary of Resources) should modify the statute (or the CEQA Guidelines) to allow Tribal authority over all necessary archaeological and Tribal cultural resource analysis for prescribed fires. Congress or the Council on Environmental Quality should make similar changes to NEPA or NEPA regulations. If the appropriate California Native American Tribe approves the activity (with or without conditions), no further analysis would be required. This recommendation should be tied to the provision of funding to Tribes to complete this work for state and federal agencies. S F
- **Recommendation 85.** CAL FIRE should fund regional programmatic EIRs for private lands for the practice of prescribed burning specifically. Such programmatic EIRs could be more specific than the CalVTP and offer more streamlined tiering. S

218 **Commission Recommendation 33**: Explore mechanisms to make planning more effective and efficient, such as improved information gathering, training, staffing, collaboration, and programmatic analyses for restoration and hazardous fuels reduction activities.

219 14 C.C.R. § 15304(i).



## CONCLUSION

The time for bold action is now. Many individuals and agencies have begun the complex and difficult work of undoing decades of fire exclusion and suppression, and centuries of racism, genocide, and mistreatment of California's Indigenous peoples. But the last few catastrophic fire seasons have made clear that time is short, and the need is great. The work of the Biden Wildland Fire Mitigation and Management Commission has created a unique opportunity for change, particularly at the federal level. We must take these opportunities to not just shift on the margins, but fundamentally change our approach to learning to live with fire. We urge Congress to take action to implement the Commission Report in its entirety and for the California Legislature to consider ways to support and encourage a similar effort.

**Statement for the Record from Laurel Harkness**
Coalition Director
Rural Voices for Conservation Coalition

Submitted to the Senate Committee on Energy and Natural Resources
Hearing to "Examine the Wildland Fire Mitigation and Management Commission Final Report to Congress"
March 12, 2024

The Rural Voices for Conservation Coalition (RVCC) would like to thank the Senate Committee on Energy and Natural Resources for hosting a hearing on the findings and recommendations of the Wildland Fire Mitigation and Management Commission Report. RVCC is a group of rural community advocates, regional and national conservation organizations, business owners, federal and state land managers, and foundations focused on land stewardship and aligned economic development across the West.

Through our coalition, we support and advance policies that promote wildfire resilience using a collaborative, place-based approach to land restoration and stewardship. To accomplish this, we support the Commission's recommendations for greater cross-boundary partnerships, collaboration, and funding (*see* e.g., Recommendations 18, 24-26, 126). We echo Wyoming State Forester, Ms. Kelly Norris, and her support for the Good Neighbor Authority. This program and other "all lands, all hands" approaches to forest management are effective means to accomplish wildfire mitigation in the West.

Furthermore, RVCC supports the Commission's recommendations for the increased use of beneficial fire, including cultural burning and prescribed fire (*see* e.g., Recommendations 10-16). During the hearing, we appreciated the support Senators and Witnesses expressed towards prescribed fire as a means for both wildfire mitigation and ecological restoration. We support the increased application of beneficial fire so communities can better restore their landscapes, mitigate wildfire risk, and manage the impacts of smoke.

In addition, we want to highlight the testimony of the Executive Director of the Confederated Tribes of the Colville Reservation and President of the Intertribal Timber Council, Mr. Cody Desautel. His testimony pertaining to the wood products industry and Tribal authorities aligns with RVCC's values of place-based landscape management and economic development. A healthy local wood products sector is vital for accomplishing the fuel reductions goals recommended by the Commission (*see* e.g., Recommendations 17-23); and a strong government-to-government relationship with Tribes can meaningful incorporate Indigenous land management priorities and knowledge into wildfire project planning and preparedness (*see* e.g., Recommendations 28-31, 140, 141).

Lastly, we want to express strong support for the Recommendations and hearing testimony focused on uplifting the wildland fire workforce (*see* e.g., Recommendations 84-103). Congressional support for the increased recruitment, retention, training, pay, wellbeing, and housing of our wildland firefighter will go a long way towards protecting and uplifting our rural communities. A permanent pay fix for our federal wildland firefighters is urgent and necessary.

Thank you for your time and consideration. Please don't hesitate to reach out if we can provide any further information.

February 16, 2024

The Honorable Mike Johnson
Speaker
U.S. House of Representatives
Washington, D.C. 20510

The Honorable Charles Schumer
Majority Leader
U.S. Senate
Washington, D.C. 20515

The Honorable Hakeem Jeffries
Democratic Leader
U.S. House of Representatives
Washington, D.C. 20510

The Honorable Mitch McConnell
Minority Leader
U.S. Senate
Washington, D.C. 20515

**Dear Speaker Johnson and Leaders Jeffries, Schumer, and McConnell:**

We are a coalition of nonprofit organizations writing to voice our strong support for Congressional action to improve wildland fire budgeting and funding. We commend the Wildland Fire Mitigation and Management Commission (the Commission) for including consensus recommendations on this topic as part of their final report to Congress. As you and your colleagues review and work to implement the Commission's recommendations, we urge you to support and include budget-related recommendations, a list of which can be found in this letter.

The need for greater transparency and effectiveness of wildfire funding is urgent. In recent years, Congress has allocated historic levels of funding to help the nation address wildland fire: combined wildfire funding for The Department of the Interior and the U.S. Forest Service doubled from fiscal year 2011 to 2020. And Congress has made generational investments in wildland fire risk reduction, suppression, and recovery, with at least $7 billion of funding made available. However, insufficient tracking of this spending across agencies and programs, inconsistent agency budget structures, and a lack of comprehensive metrics for success make accountability and evaluation of these investments extremely challenging.

Our organizations' research and recommendations support the need for coordinated, bipartisan action so that Congress, federal, state, and local agencies, wildland firefighters, nonprofits, and the private sector understand where taxpayer funds are being spent and what interventions are achieving the intended results. The Pew Charitable Trusts' research highlighted the complexity of wildfire spending, the need to improve the available data, and the impact of wildfire spending on state fiscal policy. Taxpayers for Common Sense, a nonpartisan budget watchdog that works to ensure that taxpayer dollars are spent responsibly, published a report that provides the history and an analysis of federal wildfire spending and makes recommendations for improved cost-effectiveness, budget transparency, and accountability. The Federation of American Scientists (in partnership with Resources for the Future) developed a data visualization tool to break down the current landscape of federal funding and has written about federal agency budget structures. All of these works were cited in the Wildland Fire Mitigation and Management Commission's report. Megafire Action, a nonprofit organization advocating for policies to address catastrophic wildland fire, has been advocating for robust and predictable federal investment in hazardous fuels mitigation and new laws to better harness wildfire science and technology.

Through its consensus-based and expert-informed process, the Commission has set the groundwork for moving the needle on urgent, holistic changes to wildland fire policy. Please consider our organizations as a resource as you work to translate the Commission's recommendations into action. Below is a list of recommendations among the 148 presented by the Commission related to wildfire funding and budgeting that have our support and where our organizations can provide further information:

- R1 – Congress should establish a Community Wildfire Risk Reduction Program via an interagency coordinating partnership including the U.S. Forest Service, the Federal Emergency Management Agency, the United States Fire Administration, the Office of Wildland Fire on behalf of the Department of the Interior's land management agencies, and the National Institute of Standards and Technology as principal agencies, to proactively address wildfire risk reduction actions and increase ignition resistance of the built environment.
- R3 – Congress should explore, expand, and create incentives to encourage state, local, and Tribal governments to improve land use planning to reduce the risk of wildfires to homes and other community development.
- R120 – Congress should provide advanced appropriations for wildland fire mitigation and management on a multi-year, rather than annual, cycle.
- R122 – Congress should authorize the U.S. Department of Agriculture and the Department of the Interior, within their respective Wildland Fire Management appropriations, to fund pre- and post-fire project work using the current "fire response" sub-activities in each department.
- R123 – Congress should fund budget offices to create "crosscuts" to better track all federal wildfire spending.
- R124 – Congress should ensure balanced, robust funding for pre-fire mitigation and post-fire restoration is included as part of the wildland fire budget.
- R130 – While funding levels in the Inflation Reduction Act and the Infrastructure Investment and Jobs Act are historic contributions to wildfire risk reduction, investments at a similar and sustained scale in federal land management agencies and programs are needed to successfully and proactively reduce growing wildfire risk.
- R132 – Congress should ensure that agencies have sustained funding to maintain wildfire risk and resilience improvements.
- R134 – Congress should incentivize state, local, and Tribal government development of dedicated revenue streams to support wildfire mitigation and management. The Commission encourages more states and localities to provide approval of such local revenue streams to bring more dedicated resources into play in reducing the risk of wildfire.
- R142 – Increase accessibility of federal grants for community wildfire risk reduction and post-fire recovery efforts.
- R147 – Change the system of land management agency performance metrics beyond acres treated, timber volume output, or acres burned to measure success. Success should be measured by outcomes such as the number of protected assets, values, and resources, and the degree to which forests and rangeland are returned to and maintained in a more resilient state.

We commend the Wildland Fire Mitigation and Management Commission for their landmark report. As you and your colleagues review and work to implement the Commission's recommendations, we urge you to support and include the above budget-focused recommendations. Please do not hesitate to reach out to our organizations as a resource as you work to translate these Commission recommendations into action.

Sincerely,

The Pew Charitable Trusts, The Federation of American Scientists, Megafire Action, Taxpayers for Common Sense.

cc: The Honorable Glenn Thompson, Chairman, House Committee on Agriculture
The Honorable David Scott, Ranking Member, House Committee on Agriculture
The Honorable Kay Granger, Chairman, House Committee on Appropriations
The Honorable Rosa DeLauro, Ranking Member, House Committee on Appropriations
The Honorable Mike Rogers, Chairman, House Armed Services Committee
The Honorable Adam Smith, Ranking Member, House Armed Services Committee
The Honorable Jodey Arrington, Chairman, House Budget Committee

Pew FAS FEDERATION OF AMERICAN SCIENTISTS MEGAFIRE ACTION TAXPAYERS for COMMON SENSE

The Honorable Brendan Boyle, Ranking Member, House Budget Committee
The Honorable Cathy McMorris Rodgers, Chairwoman, House Committee on Energy and Commerce
The Honorable Frank Pallone Jr., Ranking Member, House Committee on Energy and Commerce
The Honorable Patrick McHenry, Chairman, House Financial Services Committee
The Honorable Maxine Waters, Ranking Member, House Financial Services Committee
The Honorable Mark Green MD, Chairman, House Committee on Homeland Security
The Honorable Bennie Thompson, Ranking Member, House Committee on Homeland Security
The Honorable Bruce Westerman, Chairman, House Committee on Natural Resources
The Honorable Raúl Grijalva, Ranking Member, House Committee on Natural Resources
The Honorable James Comer, Chairman, House Committee on Oversight and Accountability
The Honorable Jamie Raskin, Ranking Member, House Committee on Oversight and Accountability
The Honorable Frank Lucas, Chairman, House Committee on Space, Science, and Technology
The Honorable Zoe Lofgren, Ranking Member, House Committee on Space, Science, and Technology
The Honorable Sam Graves, Chairman, House Committee on Transportation and Infrastructure
The Honorable Rick Larsen, Ranking Member, House Committee on Transportation and Infrastructure
The Honorable Debbie Stabenow, Chairwoman, Senate Committee on Agriculture, Nutrition, and Forestry
The Honorable John Boozman, Ranking Member, Senate Committee on Agriculture, Nutrition, and Forestry
The Honorable Patty Murray, Chairwoman, Senate Committee on Appropriations
The Honorable Susan Collins, Vice Chair, Senate Committee on Appropriations
The Honorable Jack Reed, Chairman, Senate Committee on Armed Services
The Honorable Roger Wicker, Ranking Member, Senate Committee on Armed Services
The Honorable Sherrod Brown, Chairman, Senate Committee on Banking, Housing, and Urban Affairs
The Honorable Tim Scott, Ranking Member, Senate Committee on Banking, Housing, and Urban Affairs
The Honorable Sheldon Whitehouse, Chairman, Senate Committee on the Budget
The Honorable Chuck Grassley, Ranking Member, Senate Committee on the Budget
The Honorable Joe Manchin, Chairman, Senate Committee on Energy and Natural Resources
The Honorable John Barrasso, Ranking Member, Senate Committee on Energy and Natural Resources
The Honorable Thomas Carper, Chairman, Senate Committee on Environment and Public Works
The Honorable Shelley Moore Capito, Ranking Member, Senate Committee on Environment and Public Works
The Honorable Ron Wyden, Chairman, Senate Committee on Finance
The Honorable Mike Crapo, Ranking Member, Senate Committee on Finance
The Honorable Bernie Sanders, Chairman, Senate Committee on Health, Education, Labor, and Pensions
The Honorable Bill Cassidy, MD, Ranking Member, Senate Committee on Health, Education, Labor, and Pensions
The Honorable Gary Peters, Chairman, Senate Committee on Homeland Security and Governmental Affairs
The Honorable Rand Paul, Ranking Member, Senate Committee on Homeland Security and Governmental Affairs

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**PRESIDENT & CEO**
David White, CAE
Tree Care Industry Association
Manchester, New Hampshire

March 26, 2024

Senator Joe Manchin III
Chair, Senate Committee on Energy and Natural Resources
United States Senate
306 Hart Senate Office Building
Washington, DC 20510

Senator John Barrasso
Ranking Member, Senate Committee on Energy and Natural Resources
United States Senate
307 Dirksen Senate Office Building
Washington, DC 20510

**RE: Hearing to examine the findings and recommendations of the Wildland Fire Mitigation and Management Commission**

Dear Chairman Manchin and Ranking Member Barrasso:

The Tree Care Industry Association (TCIA) appreciates the opportunity to submit this letter for the record concerning the Senate Energy and Natural Resources Committee's recent hearing on the findings and recommendations of the Wildland Fire Mitigation and Management Commission. As the threat of wildfires continues to escalate–particularly those caused by electric infrastructure–we encourage Congress, the federal government, and states to consider establishing consistent rules and processes regarding the standard of care for pre-inspection of hazard trees in vegetation management plans. Doing so will incentivize proactive wildfire mitigation as well as set expectations and increase predictability for utilities, vegetation management companies, municipalities and insurers.

TCIA is a national trade association representing approximately 1,600 businesses nationwide that engage in commercial tree care and provide services to residential communities, state and local governments, commercial corporations, and utilities. Our members promote safety, professionalism, and sustainability within the tree care industry. TCIA's members that engage in commercial right-of-way (ROW) vegetation, contract with utilities to perform pre-inspection work. These pre-inspectors identify and assess the vegetation that may pose a risk to power lines, substations, or other utility equipment, mitigating customer service disruptions and reducing instances of wildfire ignition through powerline contact.

**Background**
The increasing frequency and severity of wildfires in recent years have highlighted a critical need for comprehensive strategies to manage and mitigate wildfire risks, especially those associated with electric infrastructure. As the Wildland Fire Mitigation and Management report finds, electric utility corridors are increasingly

threatened by these natural disasters, posing both a direct impact through infrastructure damage and an indirect risk when trees and vegetation come into contact with energized lines. Over time, or under certain conditions such as high winds or extreme weather events, limbs or entire trees can fall onto power lines, igniting surrounding vegetation and significantly heightening the risk of wildfires. In recent years, these utility-caused ignitions have resulted in catastrophic wildfires, destroying entire communities, causing billions of dollars in damage, and resulting in loss of life.

As a result of these consequences, utilities rely on a variety of strategies to reduce wildfire risk, including proactive power shut-offs during periods of high risk. While effective in reducing wildfire ignition risk, de-energizing transmission lines often leads to power outages and water scarcity that can have widespread impacts on communities, businesses, and critical infrastructure. Additionally, implementing and managing these shut-offs can exceed budget expectations; the Commission cited a 2019 report estimating $10 billion in expenditures.

Vegetation management also plays a crucial role in reducing wildfire risks. This work involves the inspection of utility lines and the surrounding vegetation to identify hazard trees as well as the trimming, removal, or treatment of trees and other vegetation to prevent their contact with energized power lines. In the wake of recent catastrophic wildfires, however, vegetation management contractors face mounting insurance rates and potentially crushing liability. As a result, fewer and fewer contractors can afford to perform this work, highlighting the need for solutions to address these challenges and ensure the continuity and effectiveness of wildfire mitigation efforts.

**Potential Solution: Standard of Care**

One of our industry's most pressing concerns is the lack of a clear, national standard of care for the pre-inspection of hazard trees within vegetation management plans. This absence not only hampers effective wildfire risk management but also poses significant challenges to utility infrastructure safety. Without standardized guidelines, utilities and vegetation management contractors cannot accurately gauge whether a court will determine whether any given wildfire mitigation measure is considered sufficient for liability purposes.

In light of these challenges, TCIA has been closely involved in advocacy efforts in California, where wildfires have underscored the urgent need for clearer standards in utility vegetation management (UVM). Our overarching goal is to establish consistent risk assessment practices that mitigate wildfire ignition risks and support sustainable operations for contractors while enhancing safety and reliability in high-fire-risk areas.

We urge the Senate Committee to consider the development of federal standards that incorporate a standard of care for UVM, drawing inspiration from best practices and collaborative efforts with industry, utilities and all levels of government.. Such standards would provide clear, consistent guidelines that enhance wildfire risk mitigation efforts nationwide.

Establishing a national standard of care would yield numerous benefits, including more effective wildfire prevention, standardized risk assessment practices across states, and improved accessibility and affordability of insurance for contractors. TCIA stands ready to collaborate with the Committee and other stakeholders in developing and implementing these crucial standards.

We would like to express our sincere appreciation for the Committee's leadership on wildfire mitigation. TCIA is committed to supporting initiatives aimed at establishing national standards that prioritize safety, professionalism, and sustainability within the tree care industry.

Thank you again for your attention to this matter. We look forward to working with you to address these critical issues and enhance wildfire prevention efforts nationwide.

Sincerely,

David White, CAE
President & CEO, TCIA

MARK GORDON
GOVERNOR OF WYOMING
CHAIR

MICHELLE LUJAN GRISHAM
GOVERNOR OF NEW MEXICO
VICE CHAIR

JACK WALDORF
EXECUTIVE DIRECTOR

March 12, 2023

The Honorable Joe Manchin
Chairman
Committee on Energy and Natural Resources
United States Senate
304 Dirksen Senate Office Building
Washington, DC 20510

The Honorable John Barrasso
Ranking Member
Committee on Energy and Natural Resources
United States Senate
304 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Manchin and Ranking Member Barrasso:

With respect to the Committee's March 12, 2024, hearing to examine the findings and recommendations of the Wildland Fire Mitigation and Management Commission, attached please find Western Governors' Association policy resolutions 2021-06, Disaster Preparedness and Response, 2024-02, National Forest and Rangeland Management, 2022-02, Air Quality Protection and Management, and 2023-04, Housing is Foundational to the Success of the West.

There are 148 policy recommendations in the Commission's final report to Congress, many of which are similar to Western Governors' bipartisan policy recommendations contained in the attached resolutions. The Commission's consensus-driven recommendations address nearly every facet of the wildfire crisis, including pre-wildfire risk mitigation, active fire suppression, post-fire recovery, and systematic reforms that affect every phase of wildland fire management. Western Governors recognize that addressing the threat of uncharacteristic wildfire requires a holistic understanding of, and response to, the many complex factors that contribute to the lifecycle of wildland fire. The Governors appreciate the Committee's commitment to examining the Commission's recommendations and moving forward with reforms that will improve all aspects of the wildfire cycle, from pre-fire mitigation through post-fire recovery.

I request that you include these documents in the permanent record of the hearing, as they articulate Western Governors' collective and bipartisan policy on wildland fire and related subjects.

Thank you for your consideration, and please contact me if you have any questions or require further information.

Sincerely,

Jack Waldorf
Executive Director

Attachments (4)

# Policy Resolution 2021-06

# Disaster Preparedness and Response

**A. BACKGROUND**

1. Major disasters, emergencies and extreme weather events are devastating to the people, property, economy, and natural environment of the communities in which they occur. The outcomes of disasters and emergencies can often be far-reaching, with effects on the national economy, infrastructure, and the import and export of commodities.

2. In the United States, disasters and emergencies and their economic and public costs have increased significantly in recent years. Federal disaster declarations (including emergency declarations, major disaster declarations, and fire management assistance grants) have surged since they were first utilized in 1953. From 1953 to 1989, the average number of annual federal disaster declarations was 27.8. That number escalated to an annual average of 108.7 from 1990 to 2016. The year 2020 saw a record 308 disaster declarations by the federal government. Of these declarations, 230 were for emergencies or major disasters, surpassing the previous record of 128 dating back to 2011.

3. The federal government plays a critical role in disaster and emergency response and long-term recovery efforts. Accompanying the greater number of disasters has been an increasing level of federal disaster aid. From 1980 to 2009, the number of federally declared disasters which resulted in costs exceeding $1 billion averaged approximately 4.5, annually. That number has surged. From 2016 to 2020, the numbers rose with an average 16.2 disasters exceeding $1 billion in costs each year. In 2020, there were a record-setting 22 disasters that exceeded $1 billion in costs.

4. Proactive emergency management efforts, such as hazard mitigation and risk reduction activities, have an incredible return on investment. Research has shown that actions taken before a disaster to reduce hazards save, on average, six dollars in future response and recovery costs for every dollar spent on hazard mitigation. At a time when state budgets are struggling to keep up with more frequent and costly disasters, investing in hazard mitigation could have a profoundly positive effect on state and local budgets.

5. Certain types of disasters pose unique threats to western states and have occurred with greater frequency in recent decades. These include floods, droughts, tornadoes, mudslides, earthquakes, hurricanes, and, particularly, wildfires. Wildfires consumed approximately three million acres nationwide in 1960. In three of the past six years, over ten million acres have burned annually. 2020 saw 10.1 million acres affected by wildfire, of which nearly ninety-five percent were in western states. Federal agencies' wildfire suppression costs have increased from less than $240 million in 1985 to over $2.2 billion in 2020. Experts project that wildfires will continue to worsen, in terms of acreage burned and in economic effects.

6. Disasters and emergencies have disproportionate effects on different populations and communities. Race and ethnicity, language, education and economic barriers, and immigration status can negatively affect the outcomes of those experiencing an emergency

or disaster. These factors have effects beyond the initial response and extend to recovery, risk reduction, and preparedness program accessibility and equity.

7. The National Response Framework and National Disaster Recovery Framework describe how the federal government, states, territories, localities, tribes, and other public and private sector institutions should respond to and recover from disasters and emergencies. Local emergency agencies – police, firefighters, and medical teams – are to be the first responders in a disaster or emergency. State, territorial, local, and tribal governments have the lead roles in disaster response and recovery. Federal agencies can become involved in disaster and emergency response when resource capacity or effective emergency management is beyond the capabilities of a state, territory or tribe. These federal efforts are primarily directed through the Department of Homeland Security's Federal Emergency Management Agency (FEMA).

8. Governors have a key role in managing emergency response. Governors typically are the state or territorial elected official responsible for making a state disaster declaration and directing disaster response in their jurisdiction. Governors are also responsible for deploying their state National Guard in emergency situations. Governors hold the sole authority to request federal assistance when a disaster overwhelms state and local capabilities, and are responsible for negotiating and implementing interstate mutual aid agreements.

9. Disaster and emergency response and long-term recovery create a significant financial burden. When authorized by FEMA, the Public Assistance, Individual Assistance, and Hazard Mitigation programs provide federal funding which can alleviate this strain. Affected homeowners may seek Individual Assistance; state and local governments may seek Public Assistance to reimburse for costs incurred from debris removal, emergency protective measures during the response, and permanent repair of damaged public infrastructure; and Hazard Mitigation funds can help communities rebuild and become more resilient against future disasters. Other federal agencies, such as the Small Business Administration, Department of Agriculture (USDA), Department of Housing and Urban Development (HUD), and Federal Highway Administration also have programs designed to assist in disaster and emergency recovery efforts. For example, the USDA Natural Resource Conservation Service (NRCS) Emergency Watershed Protection Program is designed to protect people and properties from flooding that often follows wildfire events.

10. In recent years, some petitions for long-term federal recovery aid have been denied. This has been most apparent in petitions for Individual Assistance to counties affected by disasters and emergencies, but has also occurred in connection with state requests for Public Assistance. A denial of federal aid compounds problems for affected communities struggling to recover from the devastation of a disaster or emergency and slows recovery efforts in many western states.

11. While most disasters affect a specific local area, the COVID-19 public health emergency was national in scope. The COVID-19 pandemic has highlighted the need for close coordination between federal, state, territorial, local and tribal governments in emergency management. The pandemic continues to cause significant disruption across the world, requiring ongoing attention from Governors and emergency management and public health officials, affecting the lives of all Americans, and complicating the flow of goods and services across international borders.

**B. GOVERNORS' POLICY STATEMENT**

1. Governors need maximum flexibility to respond to disaster and emergency circumstances that may evolve quickly over the course of a disaster through the initiation of recovery. Therefore, we should expeditiously remove any barriers limiting a Governor and their executive branch agencies' ability to save taxpayer money and expedite response and recovery efforts while safeguarding lives, property and the environment. Western Governors recognize that planning processes and disaster and emergency protocols are important aspects of emergency management, but that Governors also need significant freedom to adapt those plans to changing circumstances during the evolution of a disaster or emergency.

2. Federal, state, territorial and tribal efforts to prepare for, mitigate against, respond to, and recover from emergencies and disasters must ensure programs and response efforts are inclusive, equitable, and accessible and representative and reflective of the affected communities. Concepts of inclusivity, diversity, equity and accessibility must be included from initial development of programs, policies and procedures to reduce risk in our communities and address post-disaster survivor needs.

3. Western Governors recognize that community resilience is key to ameliorating the effect of many disasters and emergencies. Hazard mitigation and risk reduction are the most cost-effective ways to protect lives, property, infrastructure and the environment from the effects of natural and human-caused hazards. Effective risk reduction strategy development and implementation leverage broad stakeholder input across multiple disciplines, sectors and levels of government. Infrastructure planning should include consideration of risk reduction measures for known hazards as well as address the dynamic hazard profile created by a changing climate. We must plan for tomorrow, not yesterday.

4. Western Governors encourage Congress and federal agencies to reassess the structure of disaster mitigation grant programs, which can be too restrictive or narrowly tailored to address community needs. Additionally, establishing consistent administration standards for different federal grant programs, including the Hazard Mitigation Grant Program, the State Homeland Security Program, and the Building Resilient Infrastructure and Communities and Emergency Management Performance Grant programs, would streamline application processes and eliminate confusion at the local level.

5. Federal agencies conducting disaster recovery and assistance, as well as the programs which they administer, should receive adequate and consistent funding and allow Governors and their designated executive branch agencies to have critical input on where those funds are needed most. The lack of speed, certainty and consistency in appropriation of federal disaster funding, such as HUD Community Development Block Grant – Disaster Recovery (CDBG-DR) funds, are a hinderance to coordinated recovery efforts and effective utilization of public funds. For example, there is no current appropriation (or public consideration) of funding for the 2020 California wildfires, which occurred more than seven months ago. Additionally, the inconsistent incorporation of HUD mitigation resources (CDBG-MIT) is an obstacle to effective coordination of mitigation efforts across program areas.

6. Many rural western communities have less concentrated populations than eastern states, making it difficult for western states and territories to qualify for Individual Assistance and Public Assistance declarations. Additionally, certain criteria, such as considering Total Taxable Revenue of the entire state when evaluating whether to provide a major declaration for a localized event, makes it virtually impossible for large states to receive a declaration. Federal processes used to evaluate the need for access to disaster aid programs should be reconsidered. Federal agencies should reexamine the standards used to determine the provision of Individual Assistance to homeowners and the access to federal aid needed for recovery from disasters and emergencies that affect western states and territories. The historically underfunded USDA NRCS Emergency Watershed Protection Program should be revisited and strengthened.

7. Western Governors recognize that as the first responders to a disaster or emergency, states, territories, local governments, and tribes have better information about local conditions and needs in the response and immediate recovery phases of a disaster or emergency. FEMA and other applicable federal agencies should work directly with individual states and territories, through Governors or their designees, to jointly identify disaster risks and methods by which such risks may be addressed. In collaboration with Governors or their designees, federal agencies should reassess the administrative mechanisms to establish the most effective means to determine the necessity and provision of federal disaster assistance.

8. Federal agencies should provide state, territorial, local, and tribal government officials with accessible and clear information on available federal resources and programs and the most effective utilization of those resources in disaster recovery. WGA has worked with federal partners to improve interagency coordination on post-wildfire restoration work, including a roadmap of assistance available to communities affected by wildfire and identification of "navigators" to help communities prioritize post-wildfire restoration needs. Western Governors urge the federal government to prioritize the funding of these important efforts, as they should have a positive effect on maximizing the value of restoration work and, more importantly, addressing the needs of communities affected by wildfire.

9. Western Governors recognize that while aid may be provided following a disaster, the event itself could be avoided or minimized if resources were directed to pre-disaster mitigation efforts. Rebuilding is too-often provided in a delayed fashion or conducted without safeguards necessary to prevent future disaster-related damages. This compounds the vulnerability of western communities and resources in the face of disasters. Federal legislation should reconsider the important role of pre-disaster mitigation that reduces the risk and minimizes the effects of disasters and emergencies. When possible, pre-disaster mitigation should be incentivized at the state and local levels. Additionally, some western and midwestern states are at risk of catastrophic earthquake. Mitigation assistance beyond that currently administered by FEMA is needed. Finally, mitigation funds tied to Fire Management Assistance Grant (FMAG) declarations assist fire-ravaged communities. The FMAG and Hazard Mitigation Grant Program (HMGP) Post Fire Grant programs should be continued.

10. Western Governors encourage the Administration to consider actions to increase communication between and cohesion of federal agencies in disaster and emergency response. The Executive Branch should consider placing FEMA in the lead role to coordinate communication between and cohesion of federal agencies in disaster and

emergency response. Strengthening federal emergency management processes to promote single, comprehensive points of contact would streamline state-federal coordination and help ensure states and territories can allocate resources where they are most needed. Western Governors support the consideration of a national emergency management strategy to provide consistent lines of communication between federal, state, territorial, local and tribal governments.

11. Federal agencies should seek to eliminate duplicative administrative processes to streamline post-disaster assistance. Multiple agencies requiring overlapping or duplicative reviews for post-disaster assistance adds time and cost to recovery efforts.

12. Western Governors recognize the need for clear, consistent, truthful and timely communication about the scope and scale of disasters and emergencies, both between all levels of governments and between governments and their constituents. Clearly articulating what is known, and what is not known, about a disaster or emergency is critical to developing and executing an effective response from governments, promoting public confidence in those response actions, and empowering citizens to make informed decisions about their safety and welfare.

**C. GOVERNORS' MANAGEMENT DIRECTIVE**

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

*This resolution will expire in June 2024. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.*

# Policy Resolution 2024-02

# National Forest and Rangeland Management

## A. BACKGROUND

Western states contain over 75 percent of the national forest and grassland system, and communities in the West depend upon forests and rangelands for jobs, recreation, and quality of life. Conversely, effective natural resource management is only possible if rural and resource-dependent communities are healthy, vibrant, and prosperous. These forests and rangelands provide a number of important ecosystem services that drive local economic activities including grazing, forest products, and recreation. The majority of surface water in the West originates in National Forests as well, and western water security is directly tied to the health of western forests. Both natural disturbances and management decisions have the potential to fundamentally alter the complex, interdependent relationship between communities and land. Climate change can accelerate these dynamics by increasing the frequency and severity of fire, altering hydrologic patterns, and expanding the potential range of invasive species. Furthermore, states have a unique interest in active land management and improving lands' resilience against disturbances because state governments have trust authority over water, wildlife, and forest resources, along with primary authority and expertise to protect community health and safety.

## B. GOVERNORS' POLICY STATEMENT

1. Western Governors support sound forest and rangeland management policies that maintain and promote ecologic, economic, and social balance and sustainability.

2. Western Governors support the creation of mechanisms to identify and enhance cross-boundary collaborative work.

3. Western Governors point to the Western Governors' Association (WGA) – U.S. Department of Agriculture (USDA) Shared Stewardship Memorandum of Understanding (MOU) as an example of an effective framework to establish shared state-federal priorities for forest and rangeland management and encourage the development of similar MOUs with other Executive Branch agencies for other areas of natural resource management.

4. Effective forest and rangeland management is only possible through coordination between federal, state, local, and tribal land management agencies. These agencies should strive to find new ways to collaborate on forest and rangeland management projects, as well as to explore ways to improve state-federal coordination on existing management projects. Shared Stewardship Agreements between states and USDA are a good example. Federal agencies should look to local communities as a source of strength, knowledge, and support during the planning and implementation of forest and rangeland management projects and should be encouraged to work with local communities while planning forest and rangeland management projects. The U.S. Forest Service (USFS) and Bureau of Land Management (BLM) could achieve this by developing regional and cross-boundary collaboratives to facilitate cooperation on

ecosystem-level land management challenges and water source protection. Federal land management agencies should consider investing in facilitation capacity and training for agency personnel and partner organizations involved with collaboratives.

5. Western Governors support improvements to interagency communication, fire response capability, and coordination, including the sharing of firefighting resources. Fire management activities should support fire prevention, rapid response capabilities, full suppression strategies where appropriate and management of wildfire for resource benefits. Local government and volunteer fire associations play a critical role in wildfire response and mitigation, and state and federal agencies should look for ways to further incorporate these groups into regional wildfire dispatch and coordination centers. Additionally, it is critical that improvements are made to simplify the fire billing adjudication process to ensure more timely reimbursements in line with agreement standards.

6. Federal agencies should examine funding match requirements and consider reducing or eliminating these requirements when the public benefit outweighs the cost of the funding match. Federal agencies are encouraged to work with western states to ensure that communities' access to these grants is as efficient and streamlined as possible.

7. Federal agencies should facilitate the participation of state, local, and tribal governments in federal decision making by dedicating staff to develop and provide technical assistance and enhance communications across local, tribal, state, and federal partners. Federal agencies should also take steps to assist resource-constrained communities in developing needed capacities such as grant writing or conducting environmental analyses.

8. States may be the conveners of collaborative interagency forest and rangeland management efforts, such as in the case of Good Neighbor Agreements. When this occurs, federal agencies should provide funding and support to states for the cost incurred during any convening role. Congress and federal agencies should also provide opportunities for expanded cooperation, particularly where states are working to help their federal partners to improve management of federal lands through the contribution of state expertise and resources.

9. Effective forest and rangeland management requires a network of forest and rangeland infrastructure to manage, maintain, and restore western forests and rangelands. Federal and state agencies should strive to find ways to support and expand critical forest and rangeland management infrastructure, including mills, biomass facilities, livestock watering systems, and roads. Federal agencies should also examine the need for market incentives to encourage sustainable nursery markets and facilitate the development of additional nursery capacity. The federal government should take steps to address equipment shortages as part of its implementation of the Infrastructure Investment and Jobs Act (IIJA).

10. Federal and state agencies should look for ways to grow the workforce needed to support and operate forest and rangeland management infrastructure. These agencies should explore the expanded use of youth, veterans, inmate crews, and conservation corps to provide cost-effective capacity to support forest and rangeland restoration. The federal government and employers should also consider work experience and other non-traditional credentials in hiring to ensure adequate capacity for land management project implementation. The federal government, states, and territories should examine standards on hiring persons with criminal backgrounds to promote employment opportunities for qualified applicants that present

minimal risk for future criminal behavior. The federal government should focus attention on housing needs and assist communities seeking to attract and retain workforce.

11. Western Governors support the expansion of restoration projects in forest and rangelands, including repair or removal of culverts and other barriers to fish passage. Federal and state agencies should strive to find ways to support and expand cost-effective means of supplying restoration projects, such as with large woody material from adjacent overstocked forests, which in turn supports the rural workforce needed to implement large-scale watershed and stream restoration efforts.

12. A thriving forest products industry is essential to support critical forest management infrastructure. Western Governors support the expansion of markets for forest products. Federal agencies should expand opportunities and incentives for existing USDA, Economic Development Administration, and Small Business Administration programs and financing to support forest products business development and infrastructure. USFS Research and Development, State and Private Forestry, and National Forest System should work collaboratively to support existing and emerging forest products technologies, including the work of the National Forest Products Laboratory, with the goal of expanding markets to maximize restoration activity.

13. Congress should pass legislation to promote forest and rangeland product markets and technologies and expand funding for the Community Wood Energy Program. Federal agencies are encouraged to continue research and development efforts to find viable markets for low-value biomass and prioritize the utilization of low-value biomass for thermal, electric, and liquid-fuel energy. Rural electric cooperatives, public utilities, community facility managers, and other partners should contribute to the research, testing and deployment of new and modified heat and electric generation projects and liquid-fuel facilities from hazardous fuels reduction, conifer removal, and other forest and rangeland restoration efforts.

14. Federal land managers should work to ensure that forest products producers have increased certainty of supply, as well as a broader suite of outlets, in addition to traditional sawmills and existing biomass facilities. States can also work with USFS and other federal land managers to establish more long-term stewardship agreements to ensure a long-term feedstock supply. Federal resources and partnerships should support efforts beyond federal lands given the critical role of cross-boundary work.

15. Authorities granted in past Farm Bills such as Good Neighbor Authority (GNA) and Stewardship Contracting Authority (SCA) are powerful tools to boost forest and rangeland management, promote collaboration, and limit the effects of administrative objections and litigation. Congress should extend both authorities to all federal land management agencies and authorize those entities to increase the flexibility of GNA and SCA. Federal agencies should modify GNA guidance for all eligible partners to allow 20-year contracts, retention of timber sale revenue, a broader set of authorized restoration services, and the expenditure of project revenue on non-federal lands.

16. Western Governors believe clear, coordinated, and consistent application of federal vegetation management practices is integral to maintaining the health of western forests, preventing dangerous and damaging wildfires, and maintaining grid reliability. The Governors support effective and efficient cross-jurisdictional coordination that enables utilities to undertake necessary vegetation management actions on federal transmission rights-of-way.

17. Congress should direct funding to the Joint Chiefs Landscape Restoration Program to facilitate continued partnership and investment between USFS, the Natural Resources Conservation Service, and state foresters to support restoration projects.

18. The USFS business model can be improved by identifying business practice barriers to cross-boundary projects, developing training on state and federal contracting procedures, utilizing Service First authorities, streamlining and consolidating agency processes with partners, and establishing multi-agency pilot projects, which can suggest models for subsequent formal agreement.

19. Western Governors encourage effective deployment of IIJA programs, including programs that provide incentives to purchase equipment, participate in new processes, or expand markets to encourage deploying new conservation practices to aid in forest and soil health and restoration.

20. Western Governors support efforts to improve the effectiveness of the National Environmental Policy Act (NEPA) in a forest and rangeland management context, including the use of area-wide plans and specialized teams to bolster NEPA capacity. Federal agencies should engage with Governors and states in early, meaningful, and substantive consultation throughout the NEPA process. Western Governors support allowing federal agencies to analyze only the action and no-action alternatives when a project is collaboratively developed, unless a third alternative is proposed during scoping and meets the purpose and need of the project. Federal agencies should consider how interagency shared positions can create regulatory efficiencies and promote greater collaboration between federal, state, territorial, local, and tribal land managers.

21. State, tribal, and federal agencies should look to expand the training for and use of prescribed fire and should look for ways to reduce the statutory, regulatory, and economic barriers to its expanded use on western forests and rangelands.

22. Federal agencies seeking to deploy prescribed fire should work to educate the public about the utility and necessity of prescribed burns to increase cultural acceptance of the practice. Federal agencies should also coordinate with state air quality specialists on prescribed burns, put greater effort into coordinating prescribed fire with mechanical treatments; updating models, tools, and practices for safe burning; and putting a greater emphasis on post-burn preparation. State and federal air quality specialists should work together to identify reforms that reduce barriers to prescribed fire, reduce overall health impacts from smoke, improve interagency use of smoke management best practices, and examine liability protection for fire managers and compensation for private property owners negatively affected by escaped prescribed burns.

23. Land managers across the West should strive to increase workforce capacity for science-based vegetation management activities, oversight, and planning.

24. Traditional Native American cultural burning and tribal ecological knowledge and practices can contribute significantly to improved forest management in the West and should be incorporated more effectively into federal and state planning management processes.

25. Western Governors support efforts to improve a broad range of pre-fire mitigation practices. State and federal agencies should work to develop tools to support mechanical hazardous fuels reduction, especially the removal of underbrush and understory, which are economically unviable in many instances. Land managers should work to further integrate invasive species data and management practices into hazard fuels management and planning.

26. The federal government should consider additional steps to recruit and retain an effective land management and wildland firefighting workforce, including dispatchers. Federal agencies should examine their reliance on 1039 seasonal staff, shift a higher percentage of wildland fire staff from seasonal to permanent and permanent subject to furlough positions, evaluate policies related to the use of Administratively Determined emergency firefighters, and authorize hazard pay for federal firefighters performing prescribed fire operations.

27. Agencies and stakeholders should continue to seek opportunities, including revisions to forest plans, to enhance safety and reduce costs in suppression decisions while protecting communities. Incentives should be created for local governments to take voluntary actions to support the creation and expansion of fire-adapted and smoke-ready communities, including the promotion of education, fuels management projects, and improved integration of community wildfire protection plans with land use decisions when compatible with local goals. Federal land managers are encouraged to make shared wildfire risk mitigation systems (SWRM) and similar tools widely available to communities and decisionmakers.

28. Western Governors support increased attention to the challenges posed in post-wildfire landscapes and wildfire-affected communities. Federal agencies should collaborate with states to designate and train post-fire coordinators to manage post-fire recovery. Doing so would encourage better awareness of post-wildfire restoration funding opportunities available to wildfire-affected communities and more sophisticated coordination of restoration activities to achieve restoration objectives. Land managers should prioritize post-wildfire water quality effects in mitigation planning and execution.

29. Increasing the pace and scale of restoration work like prescribed fire, fuels reduction, active management, and reforestation can help reduce the effects of climate change. Western Governors support the creation and expansion of technical and financial assistance to landowners for carbon sequestration and conservation activities on forests and rangelands. Land managers should integrate small private landowners into ecosystem planning processes and responsible land management practices; additional methods of gaining small landowner participation and engagement should also be explored.

30. Federal agencies need to ensure adequate monitoring, assessment, and analysis of federal forests and rangelands, including data on wildlife, water, soil, and forage. States, territories, and federal agencies are encouraged to consider standardizing and simplifying data collection protocols for federal agencies, states, counties, and tribes which include robust landowner privacy standards and protections. Federal agencies should strive to further improve the collection of socioeconomic data related to forest and rangeland management decisions, and to further incorporate that data into management decisions.

31. The Administration should provide federal funding to develop detailed state rangeland action plans addressing invasive species, wildlife and fish habitat, and water quality and quantity as a complement to State Forest Plans. These rangeland plans should include resource analyses of

soil health, water, plants, animals, and productive capacities to inform management decision-making.

32. Western Governors urge Congress and the Administration to support the research needed for responsible and effective forest and rangeland management in the West. Federal agencies conducting research should also work to ensure that public research projects are focused on research that supports on the ground management needs. Western Governors urge Congress and the Administration to support USFS Research Stations, which play a key role in forest and rangeland management in the West.

33. Federal agencies are encouraged to include cost metrics such as the avoided cost of uncharacteristic wildfire, smoke effects on populations, excessive carbon emissions, and damage to water supply systems and downstream communities when assessing the merits of mitigation projects.

34. The outbreak of the COVID virus in 2020 posed a significant challenge to those working to manage the West's forests and rangelands, particularly wildland firefighters. State, federal, and local wildland fire managers should be encouraged to learn from the pandemic response and, as appropriate, implement effective new management principles developed during that pandemic into permanent practice. Efforts should be made to ensure that emergency response personnel are prepared for similar situations in the future, as well as other potential risks.

35. Mature and old growth forest characteristics should be considered when actively managing forest ecosystems but should not impede the ability to actively manage and restore forest ecosystems. Ecosystem resiliency is, in part, dependent on having a range of various tree age classifications within a forested ecosystem. Mapping tools should be used generically to identify where mature and old growth forests may be present and management actions should be based on locally verified ecosystem resiliency factors and ground truthing.

36. Western Governors support the continued responsible use of federal lands for grazing and increased funding for grazing management, monitoring, and permit condition compliance. Repairing and replacing range improvements, particularly fencing, in a timely manner should be a priority for federal land management agencies in wildfire-affected areas.

37. We support sound, science-based management decisions for federal lands – including adaptive management – and believe these decisions should be based upon flexible policies that take into account local ecological conditions and state planning decisions for fish and wildlife and other human needs.

38. Federal and state land managers should identify opportunities to improve flexibility and integration of grazing management and targeted grazing as tools to achieve restoration and land management goals, including fish and wildlife habitat improvements, drought and wildfire mitigation and resilience, water quality and watershed health, soil health management, promotion of perennial plant health, and control of invasive species such as cheatgrass. They should also promote grazing allotment flexibility on federal lands, within USFS and BLM permitting systems and across ownership boundaries, to respond to changing rangeland conditions and environmental considerations. Western Governors also encourage measures of successful grazing be based in ecological outcomes showing upward trends.

39. Livestock grazing on federal lands is compatible with recreation and wildlife management and fulfills the multiple use and sustained yield mission of both the USFS and BLM. Policies, analyses, or planning decisions that lead to closing allotments must be based on science, documented threats, and causal factors consistent with state policies and programs as well as federal multiple use missions. It should also be taken into consideration that grazing suspensions and closures after wildfire allow for the onset of invasive grasses causing a quicker fire return interval, which can exacerbate the threat of wildfire.

40. Decisions to reduce or suspend grazing should only be made when supported by an appropriate quantitative assessment of long- and short-term trends in rangeland conditions on specific allotments, risk of spread of invasive weeds, diseases to wildlife, or other documented fish or wildlife impacts. Forage use from wild ungulates should be assessed using rigorous quantitative methods when identifying the causal factors that affect range conditions, and those wild ungulates should be managed for their proportional impact. If after consultation with the state, the federal agency decides to reduce, suspend, close, or modify an allotment due to documented harmful wildlife impacts, an alternative allotment, properly authorized pursuant to NEPA, if a suitable alternative allotment exists, must be made available to the displaced operator prior to adjustment of the original allotment. In order to fully implement this policy, the BLM and USFS must have alternative allotments properly authorized under relevant planning documents. This ensures that suspensions or modification of grazing permits will not result in a net loss of Animal Unit Months and that appropriate alternative allotments are available.

41. Grazing permit renewal decisions should be assisted by current site-specific, quantitative data. Federal agencies should engage in meaningful consultation, coordination, and cooperation with livestock grazing permittees, state and local governments, tribes, and stakeholders, prior to initiation and throughout the entire permit renewal process.

42. Federal land management agencies' decisions to reduce or close allotments should only be based upon completion of a full administrative review and analysis, including a thorough review under the provisions of NEPA. The decision process must include opportunities for states, livestock grazing permittees, and other stakeholders to provide input. Allotments should not be closed due to a pending NEPA review without allowing authorized use of the allotment pending a final decision, or the use of an equivalent amount of forage at reasonably equivalent cost to compliant operators.

43. Federal rangeland specialists should have an understanding of the economics and management of ranching operations dependent upon federal lands and should receive the necessary training to comprehensively monitor rangelands, conduct objective analysis, and write sound environmental documents.

44. Clear directives and accountability throughout all levels of the USFS and BLM should be required so that interpretation and implementation is practical and predictable from office to office and individual to individual and informed by an understanding of localized rangeland and ecological conditions, and economic health of ranch operations. BLM should engage collaboratively with livestock grazing permittees when developing Annual Operating Instructions and aim to minimize economic burdens to permittees.

45. Federal land management agencies must give interested state agencies an opportunity to fully participate in or provide input to grazing permit actions – prior to their initiation – including

generalized review of livestock operations on federal lands, any assessment of grazing conditions as part of a federal planning process, review of past compliance of the operator with grazing allotment conditions, and individual allotment reviews. Grazing permit decisions should not be finalized until after this opportunity for meaningful consultation with the states, local governments, and the affected permittees.

46. Governors possess primary decision-making authority for management of state resources. States also have knowledge and experience that are necessary for the development of effective plans. Accordingly, it is essential that Governors have a substantive role in federal agencies' planning processes and an opportunity to review new, revised, or amended federal land management plans for consistency with existing state plans. Federal agencies should provide Governors with sufficient time for a complete state review of federal land management plans, especially when federal plans affect multiple planning areas or resources.

47. The federal government should be a responsible landowner and neighbor and should work diligently to improve the health of federal lands in the West. Federal actions or failures to act on federal lands affect adjacent state and privately-owned lands, as well as state-managed natural resources.

48. Congress and federal agencies should provide opportunities for expanded cooperation, particularly where states are working to help their federal partners to improve management of federal lands through the contribution of state expertise and resources.

49. Western Governors support efforts to examine rural communities' relationships with natural resources, such as forests, rangelands, croplands, wildlife, and source water, as well as the important role that rural communities play in the management of these resources. Policymakers in the West should be encouraged to identify barriers to growth and sustainability in western communities, including a lack of restoration infrastructure, disaster mitigation challenges, dependence upon a single natural resource, and issues related to local capacity, expertise, and funding, and identify best practices to help rural communities overcome these barriers.

**C. GOVERNORS' MANAGEMENT DIRECTIVE**

1. The Governors direct WGA staff to work with congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

*This resolution will expire in December 2026. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.*

# Policy Resolution 2022-02

## Air Quality Protection and Management

**A. BACKGROUND**

1. Clean air is essential for strong communities and superior quality of life. Air quality is influenced by both human activities and natural phenomena. Baseline air quality and the sources of impacts to that baseline differ based on local industry, geography, population, meteorology, and other state or regional conditions.

2. In the West, high elevations, extreme variations in topography, vast landscapes, and vacillating weather patterns influence air quality. The West is also disproportionately affected by wildfires, high wind dust events, volcanic activity, and international transport of pollutants. Pollutant sources, methods of dispersion, and types of affected areas in the West are very different from those in the eastern United States.

3. The Clean Air Act (CAA) establishes a regulatory structure for controlling, monitoring, and improving air quality through a system of cooperative federalism in which states and the Environmental Protection Agency (EPA) work together as co-regulators and as partners in air quality management.

4. States have the authority to manage air quality within their borders. Many western states have assumed primary responsibility for the implementation and enforcement of the CAA, subject to the minimum requirements established by EPA, through approved State Implementation Plans (SIPs).

5. The CAA obligates all states to develop SIPs to attain and maintain National Ambient Air Quality Standards (NAAQS) for criteria pollutants. The General Conformity Rule requires federal agencies to work with states in nonattainment and maintenance areas to ensure that federal actions conform to any applicable SIP.

6. The Regional Haze Rule was established pursuant to section 169A of the 1977 CAA amendments that requires states to prepare SIPs to protect visibility from human-made air pollution in 156 national parks and wilderness areas designated by congress as Mandatory Federal Class I Areas.

7. Air quality in the West has benefited from significant emissions reductions over the last 40 years. However, the number and types of remaining emissions sources controllable by states are somewhat limited. The CAA directs states, pursuant to their SIPs or Federal Implementation Plans, to reduce criteria pollutant emissions from sources that states can control, not natural or international sources. It also precludes states (except California) from establishing emissions standards for mobile sources, although Section 177 of the CAA allows states to adopt California's motor vehicle emission standards for which waivers have been granted by EPA.

**B. GOVERNORS' POLICY STATEMENT**

**Co-Regulation**

1. Western Governors value the cooperative federalism in air quality management and believe its application can and should be improved. In some cases, federal agencies disregard state expertise and authority over air quality and/or do not solicit timely, valuable input from states. Limited availability of financial resources exacerbates these tensions.

2. EPA should recognize state authority under the CAA and accord states sufficient flexibility to create air quality and emissions programs tailored to individual state needs, industries, and economies. In reviewing state plans, EPA should focus on the circumstances facing the individual state. EPA should not reject reasonable state policy choices based solely on national consistency, fear of being legally challenged, or on concerns that such choices might not be appropriate for all states.

3. Federal agencies should communicate, consult, and engage with Governors and state air quality agencies as co-regulators. For example, in the Prevention of Significant Deterioration (PSD) program, EPA should work with states to clarify responsibilities and procedures to improve coordination and consultation among state agencies, EPA, and federal land managers, as well as develop guidelines and tools for the program.

4. State CAA programs require financial and technical support from EPA and Congress. EPA must have sufficient resources to perform the research necessary to develop timely tools, templates, and guidance for states to implement effective and efficient air programs.

5. EPA rules and guidance should be clear, timely, and supported by current science and data. EPA should consult with states throughout the drafting process before a potential rule, rule revision, or guidance becomes public. EPA should also provide states with timely implementation guidance when new and revised regulations or standards are published.

6. States require certainty and consistency from Congress and EPA to implement their CAA programs. Congress and EPA should prioritize regulations addressing federally regulated mobile sources, particularly from international aviation and marine sources. EPA should consult with states to ensure adequate and effective implementation of federal programs relied on by states for their CAA programs, such as the New Source Performance Standard (NSPS) for wood heaters.

7. Under current rules and guidance, states must monitor NAAQS throughout a 20-year maintenance period, even when there is no threat of an exceedance and/or the standard has been superseded by a more stringent or different standard. States should be allowed to reduce monitoring in maintenance areas that have appropriately demonstrated air quality in the area is below the NAAQS. This allowance will free resources to address pollutants that remain a concern.

**Ozone and Particulate Matter**

8. Uncontrollable events and conditions (such as wildfire, lightning, biogenic and geogenic emissions, stratospheric ozone intrusion, and transported ozone from international and

interstate sources) result in elevated levels of particulate matter (PM) and background ozone. Western Governors have significant concerns about the lack of CAA tools available to account for PM and ozone exceedances resulting from factors outside state control.

9. The West needs additional and ongoing research on background, interstate, and international ozone. This research should be transparent, comprehensive, and coordinated with state air quality agencies and regional organizations. With this new information, EPA should reconsider the one percent threshold for significant contribution for interstate ozone transport obligations.

10. Congress should provide dedicated funding for analysis of background and transported ozone in the West, as it has historically done for the eastern United States. Congress should also provide a mechanism for which factors, such as international transport and background, that are beyond states' control are factored out of an ozone attainment determination.

**Exceptional Events**

11. Exceptional event demonstrations are resource intensive, costly, and place a significant burden on strained state resources, especially when EPA does not review or approve these state submissions in a timely manner. A lack of adequate consultation with and feedback from states, along with detailed and transparent rationale for EPA's exceptional event demonstrations, can exacerbate these challenges. EPA should streamline the process for exceptional event demonstrations, provide additional technical tools for states, and allocate resources to review state demonstrations regardless of regulatory significance status.

12. EPA should consider the resource burden placed on state and local air quality agencies to complete exceptional event demonstrations. State and local agencies can face resource challenges due to the timing of data collection requirements, limited communication with EPA during exceptional event occurrences, and limited clarity around the tier of demonstration that is required for a particular event. More specific guidance and additional EPA resources could help address these challenges. In addition, EPA should develop a database with information on air quality impacts that affect the West (e.g., wildfires, dust storms, volcanic activity, etc.) and provide a clearinghouse with tools that states can use for exceptional event demonstrations.

13. Western Governors believe the states and EPA would benefit from the following approaches to exceptional events demonstrations: (1) aggregation of multiple factors contributing to air quality to prove a single exceptional event exceedance demonstration; (2) regional exceptional event demonstrations; and (3) reference to previously submitted and approved exceptional events demonstrations for repeated event types.

**Regional Haze**

14. Good visibility in the 122 western Regional Haze Program Class 1 Areas, which include many of the crown jewels of the West's national parks and wilderness areas, positively affects western states' economies. It is important to address mobile and international emissions sources beyond states' control in the context of western states' regional haze planning processes.

15. The profound effects of fire and smoke on visibility at Class I areas in the West should be recognized in the Regional Haze Guidance and Rule.

16. EPA provided Draft Regional Haze Guidance for the second implementation period of the Rule in July 2016, but did not finalize the guidance until just weeks prior to when the second implementation period SIP was due. The clarification memo provided by EPA in July 2021 presents challenges to the state regional haze SIP development process and could be the cause of litigation. No input was requested from states before the memo was finalized. States would appreciate the ability to give input on new guidance before it is finalized, to sustain transparency between EPA and state decision making and permitting regarding regional haze.

17. Given the importance of improved visibility in the West, EPA should provide funding and resources to states throughout the planning and implementation process.

**Wildfire and Prescribed Fire**

18. More frequent and intense wildfires are steadily reducing the West's gains in air quality improvement. Smoke from wildfires can cause air quality to exceed the NAAQS for particulate matter and ozone, affecting public health, safety and transportation. The presence of smoke in western states is increasingly persistent and seasonal in nature, which can further exacerbate public health effects, especially for vulnerable populations.

19. Effective forest management techniques, including mechanical thinning of forests and prescribed burns, can dramatically reduce the size and severity of wildfires and their corresponding effect on air quality. Prescribed fire, which is managed according to state SIPs and smoke management programs, can reduce these effects, but is currently underutilized in some areas.

20. Western Governors support the use of prescribed fire to reduce the air quality effects of uncharacteristic wildfire in the West. Federal and state land managers should have the ability to use prescribed fires when weather and site conditions are appropriate and public health is protected.

21. Prescribed fire practices should include smoke management planning coordinated between state land managers, state air agencies, state health departments, EPA, other federal agencies, and federal land managers. State or regional prescribed fire councils can help facilitate this coordination.

22. Western Governors call on EPA and federal land managers to improve existing air quality tools and create additional air quality tools for states to encourage prescribed fire. These should include simplified exceptional events guidance for prescribed fire, and tools to address the air quality effects from wildfire in the West.

23. Western Governors emphasize that fire management and smoke effects cross state lines, and request that EPA work with the U.S. Forest Service (USFS), Bureau of Land Management, and other public land management agencies to develop a framework for proposing, reviewing, and approving prescribed fire events across interstate, regional areas and entities.

24. Western Governors appreciate EPA, USFS, the Department of the Interior, and the National Institute of Standards and Technology's collaboration to publish a report comparing the air quality and health effects of smoke from prescribed fire and wildfire. Western Governors encourage EPA, the Centers for Disease Control and Prevention, and other federal public health agencies to continue researching interactions between smoke and public health. Such research will inform western states' efforts to expand the use of prescribed fire as a wildfire mitigation tool.

**Methane Emissions**

25. Oil and gas operations are an important economic activity in the West, and western states regulate these operations through comprehensive programs. Methane is also a potent greenhouse gas emitted from a variety of sources, including oil and gas operations, coal mines, landfills, agriculture, wastewater facilities and natural sources. There are environmental and economic benefits of reducing methane emissions and opportunities for the beneficial use of this natural resource.

26. Many western states – in cooperation with industry in those states – have already implemented regulatory strategies that reduce methane emissions from oil and gas operations, while expanding the use and sale of methane.

27. In any federal methane regulation, federal agencies should: (1) ensure that the capture, commoditization, and sale of methane is promoted; (2) give states the flexibility to integrate a variety of technologies and tools to achieve methane emission reduction standards; (3) recognize methane emissions reductions that result from existing state regulation of volatile organic compounds; (4) ensure federal rules are coordinated with states to ensure alignment of federal and state regulatory structures; and (5) work with states to ensure the consistent use of a single, clear method of quantifying methane emissions.

**Hydrofluorocarbon Emissions**

28. Hydrofluorocarbons (HFCs) are a category of gases used in refrigeration and industrial applications that have the potential to contribute significantly to climate change. The federal American Innovation and Manufacturing Act of 2020 established federal restrictions on HFC production and consumption and will lead to a significant phasedown by 2036, but more action is needed.

29. California and Washington have passed laws creating more rigorous HFC restrictions than those in federal law. This includes the establishment of refrigerant management programs aimed at reducing HFC leaks during product lifetimes, and promoting reclamation and disposal at end of life. Congress should pass similar legislation that does not preempt state authority, but can take advantage of the opportunity to phase out these super pollutants and promote the transition to readily available substitutes.

30. Federal agencies should promote and fund research, development, and deployment of low-Global Warming Potential refrigerant alternatives to aid manufacturers, lower costs, and incentivize industry transitions to products compliant with state HFC restrictions. This includes updating federal building codes to safely allow the use of alternative refrigerants.

**C. GOVERNORS' MANAGEMENT DIRECTIVE**

1. The Governors direct WGA staff to work with congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

*This resolution will expire in December 2024. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.*

# Policy Resolution 2023-04
# Housing is Foundational to the Success of the West

**A. BACKGROUND**

1. The West has undergone extraordinary growth in recent years. According to the 2020 U.S. Census, the region has experienced population growth of 9.2 percent from 2010 to 2020, the second highest rate nationally, with more than 78 million new residents. The three fastest growing states by percentage – Utah, Idaho, and Colorado – are all western states. In addition, towns with less than 5,000 people in the Rocky Mountain and coastal areas of the West have experienced the highest nationwide population growth rates at 13.3 percent.

2. The COVID-19 pandemic accelerated and spurred several noteworthy trends. Over the past ten years, moves to large and expensive cities have plateaued in favor of smaller cities and suburbs. The U.S. Census reports that while overall moving rates continued to decline, starting in 2021, the West began to see a dramatic increase in net migration to the region. During the public health crisis, people fled big cities at increased rates for less dense areas that offered warmer weather, more outdoor recreation activities, and greater opportunities to safely social distance as telework became the new normal and employees were no longer tethered to a physical office. The Pew Research Center estimated that 1 in 5 adults, especially young professionals, relocated during the pandemic or know someone who did.

3. This growth in the West has led to housing shortages in communities large and small. Shortages have been exacerbated by Great Recession development delays and stops and a lack of workforce, which have resulted in a housing slump and left communities across the West struggling to keep up with demand and a near-record rise in the number of American homeowners. As the market began to recover, the spread of COVID-19 hit builders with similar issues, including supply chain delays and a workforce deficit.

4. According to the Federal Reserve, while home sales have boomed, the number of active housing listings in January 2022 dropped to its lowest in at least five years – 60 percent below the number on the market just two years previously – causing home sale prices to skyrocket. Nationally, prices have increased by nearly 20 percent, with the West seeing some of the greatest increases.

5. The West's natural beauty brings people from across the nation and globe. While western states welcome the growth in remote workers and visitors to tourism and outdoor recreation-based economies such as resort towns and gateway communities, unmanaged growth has caused "big city" issues for some areas. Additionally, many residences have been converted into temporary rental units through services like Airbnb and VRBO. The unchecked proliferation of these rentals can heighten housing shortages, drive costs higher, and diminish the availability of places for residents and workers to call home. Long-time community residents and workers are often forced to move out of the communities they grew up in and are culturally connected to, exacerbating disparities and making it difficult for social services, businesses and government to retain and attract employees from within

the community. Rapid population influxes also strain existing infrastructure and resources in areas that already have limited planning capacities.

6. Rural communities face unique challenges when addressing housing issues. Construction costs in rural areas are often higher than in urban areas and are further compounded by a lack of critical infrastructure. There are limited numbers of investors and contractors who are willing to mobilize or invest in small communities, making the cost of new or improved housing too high for middle-income residents. Rural areas can also lack access to lenders and credit, which reduces funding for the production of new units and the maintenance of existing housing stock. As a result, a disproportionate amount of the nation's occupied substandard housing is in rural communities. According to the U.S. Department of Agriculture (USDA), approximately half a million of its multifamily housing properties will need a total of $5.6 billion in investments to maintain suitable living conditions for residents.

7. Despite a recognized need for more housing and housing of different types, existing homeowners often oppose increasing the housing supply in their communities, especially the construction of denser housing. This opposition, and the signal it sends to city leaders, zoning boards, and planning commissions, represents a significant impediment to addressing the housing shortage and can lead to restrictive local land use regulations. Some western communities are addressing these challenges in part through the development of communities that combine housing of different types and sizes with commercial properties in ways that promote affordability, walkability, diversity of homeowner type, and a higher quality of life.

8. In downtown submarkets and dense neighborhoods, apartment absorption rates show that landlords are quickly leasing vacant apartment units, driving strong rent costs. From October 2020 to October 2021, rental costs increased 15.9 percent, with the median cost of advertised rentals rising to above $2,000 for the first time. Rental occupancy, new lease signings, and lease renewal rates show strong growth, indicating an increase in rental demand across the market. The West plays a strong role in this growth, with half of the top twenty predicted strongest markets in 2022.

9. All available data suggests that homelessness, including among families with children, has risen during the current housing crisis, likely attributed to surging rents, which compound personal and societal causes of homelessness. Homelessness and housing instability make it harder to find and keep a job, treat or manage medical conditions, and learn in school. It destabilizes communities and lowers outcomes across public systems. No one institution can end this issue on its own.

10. Housing is foundational to economic development and community vitality. In the long run, it is more cost effective for public systems to house those in need with wrap around service. Models like permanent supportive housing or transitional housing with supportive services keep residents off the streets and provide upstream interventions that lessen costs for justice and health systems. The need for a greater diversity of housing options goes beyond the obligation to treat people with dignity, as it is also cost effective for governments.

11. The HOME Investment Partnerships Program (HOME) and the Housing Trust Fund are federal housing programs administered by the Department of Housing and Urban Development (HUD). HOME is the largest federal block grant to state and local

governments for affordable housing. It provides formula grants for building, buying, and rehabilitating affordable housing or direct rental assistance to low-income households. The Housing Trust Fund provides grants to states to develop and preserve affordable housing for extremely low-income households. Although both programs are administered by the same agency, they have separate environmental review requirements. Some projects utilize both programs, resulting in a taxing process that can yield conflicting results.

12. Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) requires recipients of HUD funding to direct employment, training, and contracting opportunities to low-income individuals and the businesses that employ these persons. Davis-Bacon and related acts require federal government construction contractors on covered public buildings and public works to pay the "prevailing wage" to laborers. Applying Section 3 or Davis-Bacon to multifamily projects significantly increases the administrative burden of projects. In tight construction markets in the West, affordable multifamily projects often struggle to find contractors willing to accept the regulatory burden. These projects receive far fewer bids than non-federal projects and frequently face higher construction costs. An Oregon affordable housing cost driver study found that prevailing wage determinations, some related to Davis-Bacon, increased costs by 9 percent when controlling for other factors.

13. The Federal Housing Administration (FHA) insures mortgages on single family homes, multifamily properties, residential care facilities, and hospitals and is critical to sustaining and financing affordable housing across the nation. However, it has become increasingly arduous to work with FHA and its third-party contractor. A significant amount of time and effort is expended on delinquency reporting, filing claims, and the foreclosures process due to a lack of guidance, staffing shortages, and antiquated technology. Applicants must navigate multiple systems for delinquency reporting and filing claims and interpret handbooks if they have questions, as FHA no longer has state staff to consult and is frequently unresponsive to requests for guidance.

14. FHA determines lending limits annually based on median house prices, a percentage of the national conforming limit, and the county in which the property is located. In rural areas and non-disclosure states, there may not be current sales data or information may not be public, which generally means loan limits are not raised in spite of the fact that prices have increased.

15. Private Activity Bonds (PAB) are used to develop affordable housing and provide mortgages to low- and moderate-income homebuyers, allocated from the federal government with Congressionally set caps. Many states in the West have hit their PAB cap, meaning their ability to advance housing solutions and leverage state and local funds is limited. Additionally, the PAB cap restricts the use of the 4 percent Low Income Housing Tax Credit (LIHTC) because 50 percent of these developments must be funded with PAB. States that invest state and local resources in housing development are unable to fully leverage federal funds, creating the perverse disincentive of limiting how much state and local partners invest in housing.

16. The Community Development Block Grant (CDBG) Program, administered by HUD, provides flexible resources to states and localities to fund housing and economic development opportunities for low- and moderate-income communities. For single-family residential projects, HUD requires states and localities to identify all properties for funding upfront and

to work on them as a single project, but this is an obstacle for small, rural communities. These communities struggle with getting contractors and finding the workforce to do everything at once. The burden of administration is also extremely high and there is a tremendous amount of risk involved with the cost of compliance for CDBG. Audits may occur years after funding has been disbursed and projects have begun, and states and localities must bear the costs if projects are not compliant.

17. Federal formulas for funding do not always function effectively for states. While costs for projects have grown significantly and federal funds are often crucially important to offsetting these extreme per unit costs for affordable units, minimum allocations have stayed relatively constant. In addition, some programs utilize formulas that have been designed for other programs. For example, the traditional Emergency Solutions Grants (ESG) Program uses the CDBG formula despite the vast differences between their program goals. Although the traditional ESG formula is effective at making allocations quickly, it does not adequately serve places with homelessness needs because it is designed to address more general community development needs. The ESG formula used for the second wave of Coronavirus Aid, Relief, and Economic Security (CARES) Act funding was more aligned with program goals and led to more targeted investments to drive improved outcomes.

18. Rural states often receive the minimum allocation of federal grant funds. Consequently, they receive a much smaller administrative allocation even though every project must follow the same steps and requires the same administrative responsibilities as more populous states. Insufficient administrative funding makes it difficult for these states to leverage federal housing programs.

19. Across the West, wildfires and other natural disasters are devastating communities and creating real and persistent impacts on the lives of Americans. Federal Emergency Management Agency (FEMA) resources do a poor job of supporting those in need, particularly renters and communities with little trust in government. The federal process requires extensive documentation – which is often lost, especially in fires – and multiple rounds of applications and appeals. CDBG-Disaster Recovery (CDBG-DR) funds require Congressional allocation, which delays implementation of recovery activities. In addition, the program is not well suited to support the immediate needs of wildfire recovery. Homes are a total loss in wildfires, unlike floods or hurricanes, and infrastructure needs are beyond what CDBG-DR can support.

20. Manufactured and modular homes could help address the housing shortage in the West. These prefabricated structures are partially or fully constructed in off-site factories, which makes them affordable housing options because they are significantly less expensive and faster to build. Manufactured homes are built to HUD standards and are moveable, while modular homes are held to local, state, and regional building codes for on-site homes. While there is a huge opportunity for growth in this industry, regulatory barriers threaten to dampen or halt their expansion. A recent Department of Labor (DOL) proposal to expand the "site of work" definition for Davis-Bacon could drive up costs for manufactured and modular housing, making it harder for Americans to access affordable housing.

21. Affordable and quality housing is essential for an effective military and the recruitment and retention of military personnel and civilians. On military bases, the government provides single and unaccompanied military installation housing rent-free. There are also houses on bases, which are commonly privately-owned. The federal government provides military

personnel with a Basic Allowance for Housing (BAH) to offset the costs of renting these houses or renting or buying off-base housing. Civilians do not receive a BAH, but they are allowed to utilize base housing if it is available. BAH rates are set by surveying the cost of rental properties in each geographic location. However, the Government Accountability Office (GAO) has noted that these rates do not always accurately reflect the cost of suitable housing for service members. Furthermore, GAO has reported that remote military bases typically lack critical services and amenities, prompting personnel and civilians to search for housing in communities that are farther away or to commute long distances to access them.

**B. GOVERNORS' POLICY STATEMENT**

1. Western Governors urge Congress to pass legislation lowering the threshold of PAB financing from 50 percent to 25 percent to infuse equity into local economies, which would result in an immediate increase in affordable housing opportunities and hundreds of thousands of additional homes being built or preserved.

2. Inflation, increased material costs, and labor shortages are already constraining affordable housing development. Western Governors urge the federal government to reduce the administrative burden associated with federal housing programs to better facilitate and expedite affordable housing development, using the U.S. Department of the Treasury's (USDT) administration of the Emergency Rental Assistance (ERA) Program as a model. Reducing administrative burdens would enable affordable housing to compete on a more even field. Specifically, Western Governors support subsidy layering review and efforts to streamline the National Environmental Policy Act or use other environmental reviews in its place and urge HUD to streamline environmental review requirements for the HOME and Housing Trust Fund Programs so that projects utilizing both programs only have to complete one review. The Governors also encourage DOL to consider providing Davis-Bacon waivers for multifamily projects in small and rural communities, which often have a limited pool of contractors.

3. Western Governors request that HUD change provisions of 24 CFR 92.241(b) requiring property rehabilitation to adhere to strict minimum property standards for the HOME Program. Flexibility and discretion for rehabilitation funding would allow states to make critical improvements to the housing stock without projects dying due to the identification of other, less critical problems during HOME assessments.

4. Western Governors urge Congress to appropriate funding to FHA to upgrade their technology and processing systems. We recommend that FHA streamline its cumbersome claim filing process by creating one efficient, centralized, and modern claim system. In addition, FHA should provide ongoing and up-to-date guidance to state and local housing authorities or authorize and train its third-party contractor to provide guidance to state and local housing authorities to avoid costly consequences that hinder housing improvements in states. Western Governors also encourage FHA to consider having designated state staff again to improve communication and coordination between states and the federal government.

5. Western Governors request that the federal government support state housing finance and public housing agencies and explore ways to improve the services and resources provided to them.

6. Western Governors encourage HUD to review and allow for alternative processes in non-disclosure states to address the increasing price of housing and adjust loan limits accordingly.

7. The federal government should enable the LIHTC Program to work more effectively for underserved communities, including rural, tribal, high-poverty, and high-cost communities, as well as extremely low-income and formerly homeless tenants. Western Governors encourage the USDT and HUD to ensure that they better preserve the nation's existing affordable housing inventory by simplifying and aligning program rules. In addition, we recommend that the federal government reauthorize the expansion of 9 percent low-income housing tax credits that expired at the end of the 2021 and move forward by increasing Housing Credit allocations by 50 percent to help meet the need for affordable housing.

8. The federal government should review and adjust the formulas that determine minimum allocations granted to states for housing programs, including the Housing Trust Fund, the LIHTC Program, and the HOME Program, to account for the high administrative and regulatory costs associated with these programs. Increased allocations would allow the states to produce more impactful projects in our states. In addition, federal formulas should include data elements that directly relate to program goals, especially for the ESG Program, to ensure federal funding serves those who need it most.

9. Western Governors call for HUD to add a flat administrative fee for minimum allocation states in addition to the percentage amount for administration that is granted to them. Although projects in these states tend to be smaller, the administrative costs are the same as they are for larger projects and the administrative funds determined by the percentage formula is insufficient to cover these costs.

10. Western Governors request flexibility from HUD when utilizing CDBG funds for housing, which will ensure necessary adaptability in challenging rural markets. We encourage HUD to implement a similar approach to USDA and allow grantees to identify properties over the course of a project, instead of identifying all properties before a project begins. Focusing on one or a few properties at a time will open opportunities to grow and improve the housing stock, especially in rural areas. We also request ongoing guidance and communication from HUD to ensure that states are in compliance and are not surprised by updated guidance and penalized when projects are already underway or finished.

11. Western Governors recommend that the federal government make FEMA programs and CDBG-DR funds better tools for disaster relief. FEMA resources should require less documentation requirements after wildfires, given that many records are destroyed with little time for households to evacuate a fire zone. For CDBG-DR, HUD allocations should consider infrastructure needs and include additional resources to support rebuilding costs in the West.

12. Western Governors urge Congress to pass legislation facilitating the purchase of federal land by state or local governments at a reduced price for the purpose of increasing the supply of residential housing. We also request that the federal government honor existing commitments to transfer land to state or local governments in a reasonable amount of time.

13. Western Governors support manufactured and modular housing and recognize the important role they play in providing affordable housing for communities, particularly in rural areas. We encourage DOL not to expand the "site of work" definition to factory-built housing for Davis-Bacon wages, as it would significantly impact the affordability of these housing options.

14. Western Governors urge Congress and the Department of Defense to consider how housing costs affect recruiting, retention, and quality of life for military personnel and civilians, and solutions to the challenge. This should include adjusting the formula and process for determining the cost of housing on and near military installations; the process and frequency of adjusting locality pay, housing allowance, and remote site pay; the formula for deciding which services and amenities should be offered to personnel living on remote military installations; and other adjustments that could improve the affordability of housing and quality of life for both civilian and uniformed personnel.

**C. GOVERNORS' MANAGEMENT DIRECTIVE**

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

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