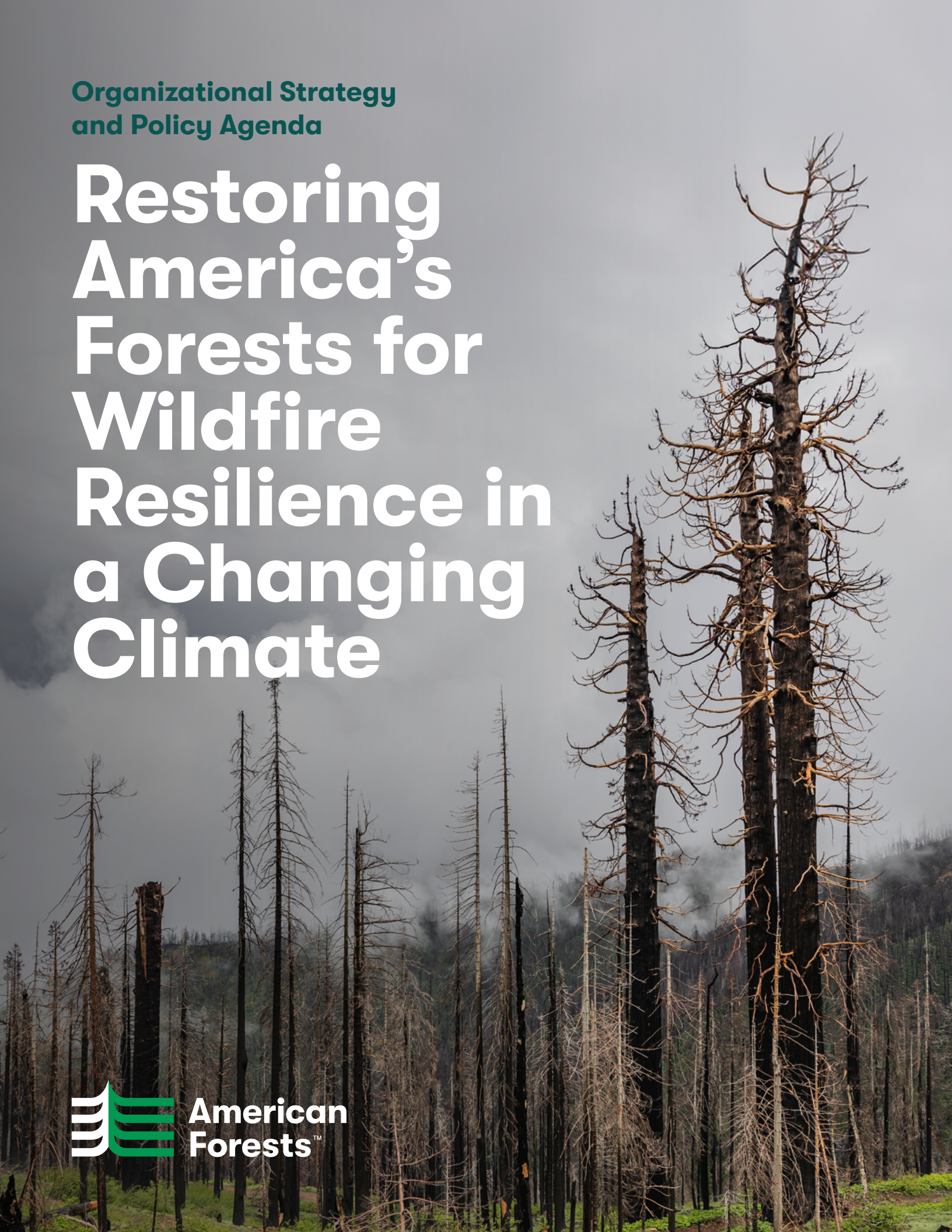
Organizational Strategy and Policy Agenda

Restoring America's Forests for Wildfire Resilience in a Changing Climate



American Forests™

Restoring America's Forests for Wildfire Resilience in a Changing Climate

In This Report:

American Forests concurs with the overarching finding of the Federal Wildfire Mitigation and Management Commission, that the modern wildfire crisis is not only an existential threat to the ecological integrity of forest and range ecosystems, but that it truly is a national public health crisis the effects of which are far ranging and chronic.

Crews access the Holiday Farm Fire, which burned 173,393 acres in 2020 in Oregon's Willamette National Forest. Photo: Marcus Kauffman / Oregon Department of Forestry.

While wildfire has shaped, and been shaped by, the species, peoples, and ecosystems of the American West over millennia, a historic rise in the frequency, severity, and extent of wildfires is threating the future of western forests and communities. Since 1960, three of the top five years for burned acreage in the United States have occurred in just the last decade (Hoover & Hanson, 2023). From 1985-2017, researchers observed an overall eight-fold increase in the annual area burned at high severity across all western U.S. forests (Parks, 2021). More recently, drought and persistent heat contributed to especially extraordinary wildfire seasons from 2020 to 2022 across many western states, with all three years far surpassing the average of 1.2 million acres burned since 2016 (National Oceanic and Atmospheric Administration, 2022). Recent conditions have proved especially baffling to wildfire managers, offering a glimpse of the challenges they may increasingly confront in the future: a combination of large-scale, long duration fires, conflagrations that incinerate entire communities, extreme fire behavior transferring embers across the crests of mountain divides, smoke reaching vulnerable populations around the globe, and rapid wildfire growth during nighttime wind events, when firefighters could normally count on working fire line.

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three of the top five years for burned acreage in the United States have occurred in just the last decade (Hoover & Hanson, 2023).

The causes of these conditions are many, including unintended consequences of fire suppression practices, an accumulation of fuels due to changing management, and the curtailment of indigenous cultural burning practices. They are exacerbated by climate change-driven drought, extreme weather, and insect and disease infestations, as well as the complicating impacts on management and wildfire suppression of a growing number of homes located in wildfire prone areas. Anthropogenic climate change has made forest fuels about twice as dry as they would have otherwise been—making forest vegetation, both alive and dead, more likely to ignite and burn more completely with greater energy release (Abatzoglou & Williams, 2016). Today's large, high-severity fires often have profoundly negative long-term ecological, social, and economic consequences for our nation (Ostoja et al., 2023). Notably, many forested ecosystems are undergoing rapid ecological transformation from forests to shrublands or other vegetation types, that not only threaten their ability to continue provide clean water, carbon storage and wildlife habitat, but also contribute to future wildfire spread and risk (Davis et al., 2023). Already, approximately 75% of vegetation type conversion in the Southwest is due to high-severity fire (Guiterman et al., 2022). Increasingly, high severity fire is altering fire regimes and changing the outlook of future fire risk across large landscapes. Where and how we choose to recover from severe wildfire events may soon play a dominant role in the West's wildfire outlook.

In late 2021 and this past year, Congress took action to respond to the scope and scale of the wildfire crisis, enacting unprecedented and needed funding to further bolster wildfire suppression and help advance wildfire resilient landscapes and communities through the bipartisan Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA). The IIJA also established the Wildland Fire Mitigation and Management Commission (Commission), creating a 50-member panel charged with creating policy recommendations to address nearly every facet of the wildfire crisis, including mitigation, management, and post-fire rehabilitation and recovery. Among these Commission members was Brian Kittler, chief program officer, Resilient Forests, with American Forests. The Commission completed its analysis and issued a final report in September of 2023.

American Forests concurs with the overarching finding of the Commission, that the modern wildfire crisis is not only an existential threat to the ecological integrity of forest and range ecosystems, but that it truly is a national public health crisis the effects of which are far ranging and chronic. Nothing short of a well-coordinated national response to all phases of the wildfire challenge will ultimately prove successful.

California's Silver State Interagency Hotshot Crew works on the Rim Fire in Stanislaus National Forest in 2013. The Rim Fire burned 257,314 acres near Sonora, California. Photo: Mike McMillan / U.S. Forest Service.

American Forests' Role

Amid early progress implementing these once-in-a-generation investments and equipped with the new policy concepts articulated by the Commission, American Forests is revising its policy strategy for Restoring America's Forests for Wildfire Resilience in a Changing Climate (American Forests, 2021) that was conceived amid the West Coast firestorm of September 2020. Many of the recommendations in that document were integrated into the forestry provisions of IIJA and IRA.

This updated strategy comes in the context of nearly 150 years of American Forests policy advocacy and leadership, stretching back to the first Forest Congress in 1882 that marked the launch of the forest conservation movement and sparked the creation of the U.S. Forest Service, and subsequently supporting the passage of the National Forest Management Act in 1976. More recently, American Forests has focused its attention and policy resources on the securing and enacting the 2018 Forest Service "Wildfire Funding Fix," and on targeted resilient forest measures including the IIJA-enacted REPLANT Act, which will provide the Forest Service funding to plant or support the natural growth of more than 1.2 billion trees over the next decade, and for the first time will help the agency catch up and keep up with its mounting post-fire reforestation needs. Effectively implemented, REPLANT will result in millions of acres of restored forests that are better adapted to future changes in climate, drought, and fire. American Forests also serves on the Steering Committee of the newly established Wildfire Resilience Coalition, comprised of stakeholders at local, regional, and national levels in federal, state, Tribal, industry, conservation, community, and academic groups.

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Crews with American Forests plant seedlings following site preparation and fuel reduction as a component of climate-informed post-fire restoration on the Eldorado National Forest in California. Photo: Luis Vidal / American Forests.

Our Policy Framework

To further address the wildfire crisis and build from past initiatives, American Forests is calling for a forest wildfire policy framework that will:

1. Ensure severely burned landscapes adapt to future wildfire threats through active post-fire recovery, climate-informed reforestation, and integration with hazardous fuels treatments inclusive of an increased use of prescribed fire and cultural burning.

2. Create a 21st-century workforce to help our forests and communities meet the comprehensive needs for mitigation and management before and after fires occur.

3. Establish new tools, technologies and partnerships needed to enhance an all-lands, and all-of-society approach to wildfire resilience.

4. Track and inform all partners of the effectiveness of wildfire resilience investments to foster durable and predictable future investments and strengthen outcome-based strategies.

Laura Spellman, a hot shot firefighter, uses a drip torch to burn vegetation in a prescribed fire treatment intented to contain oncoming fire in Mendocino National Forest, California. Photo: Cecilio Ricardo / U.S. Forest Service.

Our Wildfire Policy Agenda

Amid mounting wildfire impacts, we can ill-afford to wait to establish needed policies that enhance our ability to reduce risks, respond to and recover from severe events. American Forests is establishing this new policy framework to prioritize investments and actions – consistent with the Wildfire Commission's report and in many cases directly tied to its recommendations – to address identified gaps, sustain critical programs of work, and meet the current, emergent, and forecasted needs of our forests and communities.

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1. Ensure post-fire recovery and reforestation contribute to future wildfire resilient forests and communities across landscapes.

A. Codify and Expand the RNGR Program.

The USDA Forest Service's existing Reforestation Nursery and Genetics Resources Program (RNGR) provides critical all-lands technical assistance to support reforestation needs among federal, state, tribal and private partners. Funded through a cross-deputy area MOU, the program should be authorized and appropriated to expand technical and financial assistance for state and tribal nation partners to address a critical gap in all-lands-post-fire reforestation. Opportunities for cross-program integration with the USDA Climate Hubs should be explored as a means of promoting integration of forest adaptation science into technical assistance about climate-informed reforestation techniques. (see also Commission recommendation 78).

B. Authorize and fund the interdisciplinary, cross-jurisdictional assessment of burned areas and integrate approaches to short and long-term recovery of burned landscapes.

Federal agency teams assembled as part of Burned Area Emergency Response (BAER) programs undertake post-fire risk assessments with a narrow focus on federal assets at risk, despite the frequent need for a cross-jurisdictional approach to consider downstream state, private and tribal land values at risk. An all hands, all lands approach to post-fire recovery is needed to reflect the important property and life safety considerations of post-fire impacts such as flooding and debris flow events. Furthermore, federal agencies lack consistent funding and programs of work for Burned Area Recovery (BAR) programs which are intended to serve as a bridge beyond emergency resources to sustaining long term values at risk. A comprehensive approach that assesses short- and long-term recovery needs across boundaries is needed to support community and landscape recovery. BAER and BAR are geared for assessing, and beginning to address, short-to-mid-term landscape recovery needs, and funding to support long-term cross-jurisdiction watershed recovery and forest restoration planning is needed. Technical assistance through RNGR and aligned programs such as the USDA Climate Hubs can be targeted to promote long-term landscape-scale post-fire landscape assessments and recovery plans anchored by the best-available science.[1] (see also Commission recommendations 75 and 82).

C. Provide funding to local entities to proactively complete assessments of values at risk susceptible to post-fire impacts.

Landscape planning work pre-fire can help communities prepare for mitigating post-fire impacts. Colorado's Wildfire Ready Watersheds program is one example for how this can be done (Colorado Water Conservation Board, n.d.). (see also Commission recommendation 67).

1. Frameworks such as Resist-Accept-Direct (RAD) can inform how post-fire restoration can integrate climate change adaptation. Additionally, climate-informed post-fire forest restoration frameworks and principles are available for the Southwest, Northern Rockies and inland Pacific Northwest, and California. (See (Stevens 2021) (M. S. North 2019) (Meyer 2021) (Larson 2022).

Department of Interior bureaus have identified an over

300,000 acre

backlog of reforestation needs on U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management and Bureau of Indian Affairs administered lands. These agencies lack funding to match the scale of the problem.

D. Ensure consistent funding for the Natural Resource Conservation Service Emergency Watershed Protection Program.

The Natural Resource Conservation Service (NRCS) Emergency Watershed Protection Program (EWP) provides communities with financial and technical assistance for projects that address impacts of disasters that pose an imminent threat to human life, property, or both. EWP is typically funded through supplemental or continuing appropriations, creating uncertainty for communities in the aftermath of fires on funding availability. Many communities have been forced to explore the use of unspent funds from other jurisdictions to assemble needed resources for basic assessments, let alone mitigations of risk. Still other communities lack the sponsor capacity necessary to acquire and administer EWP funding. EWP provides critical funding for early warning systems and mitigation measures that can save lives in flooding and debris flow events and position communities to make informed decisions about their recovery needs. Reliable funding for this program remains a critical need for post-fire recovery. (see also Commission recommendations 76 and 77).

E. Establish dedicated resources and funding to support post-fire reforestation and revegetation needs of the Department of Interior.

Department of Interior bureaus have identified an over 300,000-acre backlog of reforestation needs on U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management and Bureau of Indian Affairs administered lands, with an additional backlog of over 265,000 acres on Office of Surface Mining Reclamation and Enforcement former mine lands (U.S. Department of the Interior, 2023). In the absence of dedicated capacity and funding for reforestation – i.e., precisely the kind of reliable funding commitment Congress wisely provided to the U.S. Forest Service under the enacted REPLANT Act provision of IIJA – Interior bureaus are failing to catch-up and keep up with new wildfire and other climate-driven reforestation needs, amounting to approximately 25,000 additional acres per year across bureaus. Consistent with the REPLANT precedent, Congress must authorize dedicated, long term funding to allow the Department of Interior to plan for and implement post-fire reforestation and revegetation in priority landscapes, including investments to ensure adequate seed capacity. (see also Commission recommendation 78).

A trailside sign warns of conditions after high-severity fires that can threaten life and property with flooding, debris flows, and other hazards. Photo: Jason Houston / American Forests.

Land managers at Grand Canyon National Park burn wood debris piles following a restoration thinning project to reduce hazardous fuels. Photo: M. Quinn / National Park Service.

F. Invest in mechanical and hand treatments to reduce fuel loading pre-fire to reduce the probability of high-severity fire.

Fuel loading and vegetation conditions can contribute to fire severity. Actions can be taken to reduce fuel loading and by extension to reduce fire severity. IIJA and IRA provide historic increases in funding levels for this work. These investments must continue, be conducted in an all hands, all lands manner, and where feasible and ecologically appropriate be integrated with actions to increase the beneficial use of fire. Lastly, post-fire reforestation investments often should be coupled with fuel reduction and mechanical site preparation to improve resilience to future wildfires and reduce severity of reburns, with appropriate attention to existing environmental review requirements. (see Commission recommendations 17, 18, 29, 20, 21, 24, 25, 26, and 27).

G. Invest in programs and technological innovations to support the proliferation of beneficial fire on the landscape, including funding the development of a national prescribed fire strategic plan by the Departments of Interior and Agriculture.

Prescribed fire, cultural burning, and wildfires managed under ideal conditions often present the lowest cost manner of reducing fuel loading and provide essential ecological benefits in fire-adapted seasonally dry forest types across much of the western U.S. Issues to address include concerns over liability, lack of resources and qualified workforce, lack of support and clarity around tribal sovereignty and cultural burning, and opportunities for technologies to enhance decision support needs related to application of beneficial fire. (see Commission recommendations 10, 11, 12, 13, 14, 15, 16, 105 and 106).

A drip torch is used on a prescribed fire in Manatee County, Florida. Photo: Tim Donovan, U.S. Forest Service.

A wildland firefighter works through flammable vegetation during fire suppression operations on Oregon's Willamette National Forest. Photo: Marcus Kauffman / Oregon Department of Forestry.

2. Scale comprehensive workforce solutions needed to adopt and implement wildfire mitigation and management before, during and after fires occur.

A. Authorize new funding and resources to support states, tribal nations, nonprofits and colleges and universities to bolster rural forestry workforce development solutions.

Labor shortages are a persistent challenge in the forestry and wildfire resilience space, impacting public and private partners alike. Targeted workforce education and training programs are needed to create a pool of talented, trained, and qualified applicants to fill a broad range of wildfire mitigation and management jobs spanning pre-fire mitigation, suppression and emergency response, and post-fire recovery. New workforce paradigms will help diverse Americans find meaningful career paths in natural resource management, and responsibly manage our forests for resilience to future wildfire impacts. (see also Commission recommendations 88 and 89).

B. Expand opportunities to integrate the existing seasonal wildland response workforce with year-round work on fuels treatment, prescribed fire, post-fire recovery and other resilience work.

While federal, state, tribal and local wildfire managers have begun to adopt the nomenclature of a "fire year" to reflect the year-round risks and needs associated with wildfire management and mitigation, our current approach to resourcing this need still reflects the antiquated paradigm of a wildfire season. While not all firefighters may be interested in year-round work, the option should be made available to better utilize personnel in the existing workforce who are ready and willing to diversify their work experiences, further bolstering career pathways. (see also Commission recommendation 89).

C. Bolster state, Tribal government, and local municipality prescribed fire, mitigation and recovery workforce and implementation needs though the expansion or creation of a block grant program or a new budget line item for pre/post-fire state and tribal assistance within the USDA Forest Service.

State, tribal, and local jurisdictions have diverse needs to enhance their programs for wildfire mitigation and management and lack dedicated funding resources outside of immediate wildfire suppression. Establishment of a block grant program or targeted budget line-item comparable to the existing Wildfire Assistance program supporting state, local and tribal preparedness and suppression needs would allow for the creation of staff and implementation capacity that accelerates pre-fire mitigation and post-fire recovery and makes federal investments more responsive to locally identified needs. Additionally, funding is needed to expand the successful Prescribed Fire Training Exchange (TREX) and Women-in-Fire Training Exchange (WTREX) programs.

Contractors plant seedlings on the Creek Fire and French Fire burn scars in the Sierra National Forest in California.

D. Reauthorize the Agriculture Conservation Experienced Services (ACES) Program.

The ACES program is a cost effective and efficient program that allows the Forest Service to acquire skilled personnel (age 55 and older) with "ready to apply knowledge," frequently Forest Service retirees. Use of the program, particularly around training and workforce development initiatives for new employees, can provide critical capacity that enhances continuity and workforce development. Without prompt legislative action, the program is set to expire on September 30, 2024. ACES should be renewed before that date, and should be further calibrated to pair it with workforce development programs for apprenticeships and training to facilitate mentoring and knowledge transfer.

E. Address the housing crisis facing the workforce for wildfire response, mitigation, and post-fire recovery.

One of the largest barriers to growing the workforce is the rising cost of living, particularly the lack of affordable housing in rural areas. Support the expansion of housing lease provision on federal public lands and/or enable the federal government to transfer appropriate lands and facilities to Tribal nations for development of workforce housing. (see also Commission recommendations 102 and 103).

3. Enhance the efficiency of wildfire mitigation and management through facilitating the adoption of new technologies and tools for analysis, decision support and applied research.

A. Create new pathways for public-private partnerships to accelerate the technology adoption and innovation for wildfire mitigation and management, as well as expanded research and monitoring of wildfire impacts and forest conditions.

Federal agencies currently lack dedicated infrastructure for interfacing with the private sector to prioritize needed technology improvements for wildfire mitigation and management, evaluate new innovations, address data interoperability barriers and overcome procurement challenges. Establishment of leadership and new structure are needed to overcome siloed, and antiquated approaches. Examples from other public private enterprises such as the Defense Advanced Research Projects Agency, Advanced Research Projects Agency Energy, and the Foundation for Food and Agriculture Research offer possible models. (see also Commission recommendation 112, 104, and 114).

B. Establish dedicated funding for landscape innovation pilots.

Building from pilot work developed by the Department of Interior, Congress should provide funding to support 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. Consider opportunities for integrating co-management arrangements with Tribal governments in landscape innovation pilots.

C. Federal agencies should establish dedicated tools for decision support that improve the consistency and reliability of planning for pre-fire risk mitigation treatment and post-fire recovery.

The Forest Service's Forestry Innovation Platform offers an early effort to begin to strengthen the availability of decision support tools to improve the outcome-based performance of a range of forest management and conservation actions on National Forest System lands. Agencies should collaborate with the private sector to enhance the tools and models available to decision makers in the pre-fire mitigation and post-fire recovery spaces to build efficiency in planning and decision making.

D. Establish a non-partisan, public/private working group to evaluate possible enhancements to environmental analysis and regulatory review, specific to wildfire mitigation and post-fire recovery, and focused on ensuring strong environmental safeguards, avoiding damaging precedents, and expediting needed wildfire-crisis actions.

Environmental analysis related to wildfire risk reduction, response, and recovery has been the subject of intense policy debate, seemingly intractable controversy, and repeated legislative disputes, with very little effect on the challenging spectrum of critical real-time decisions required on the ground every fire year. We recognize the essential protections that have been provided in federal decision-making under the National Environmental Policy Act (NEPA) since its enactment in 1970, and we are committed to ensuring the durability and integrity of that bedrock environmental statute. We also recognize, as the wildfire crisis and its annual toll on forested landscapes and communities intensify, that wildfire resilience, response, and post-fire recovery entail a broad range of actions that in turn present widely divergent levels of concern regarding NEPA and the need for lengthy reviews. Administrative and legislative attempts to define those differences and adapt NEPA accordingly (e.g., through categorical exclusions) have proven difficult, leaving many non-controversial pre-fire mitigation and post-fire emergency response projects in the same regulatory boat with more contested approaches. To de-politicize the effort to expedite wildfire decision-making to the extent possible, American Forests recommends establishment of a working group, made up of public officials and private NGO and other experts, to develop recommendations for innovative NEPA solutions that enhance project delivery and speed without sacrificing crucial environmental safeguards.

A wildfire burns in Yellowstone National Park (year unknown). Photo: Lora Lekos.

Caitlin Edelmuth, a Cone Corps member with American Forests, measures and records growth data of seedlings replanted in the Rough Fire scar in Sequoia National Forest. Photo: Mark Janzen / American Forests.

The urgency of the wildfire crisis demands Congress, and truly all corners of government, treat this as the national emergency that it is.

A tree planting crew operates on the Santiam State Forest within the fire perimeter of the Beachie Creek Fire.

4. Improve the transparency, accountability, and predictability of wildfire resilience investments among federal, state, local, tribal and NGO partners.

A. Make permanent the Wildfire Suppression Operations Reserve Fund. (see also Commission recommendation 121).

In 2018, Congress passed as part of the Consolidated Appropriations Act of 2018 (Pub. L. No. 115-141, 132 Stat. 348 (2018)), a provision commonly known as the "wildfire funding fix" to address the longstanding and disruptive practice of borrowing from other federal agency budget accounts when fire suppression operations funding was exceeded. The Wildfire Operations Reserve Fund created by this provision precludes this practice by ensuring agencies have adequate funding to meet suppression needs without drawing from other accounts. The Reserve fund is set to expire in 2027 and must be reauthorized to avoid a return to prior destabilizing funding approaches.

B. Congress should incentivize state, local, and Tribal government development of targeted non-federal programs and funding sources to support wildfire mitigation and management. (see also Commission recommendation 134).

State, local and tribal funding for wildfire mitigation and management can serve to complement federal funding sources and ensure that local project implementation among all wildland fire mitigation and management personnel is more responsive to local needs. Congress should consider opportunities to incentivize the creation of these state, local and tribal funding sources to enhance innovation and expand resources for wildfire resilience.

C. The administration should establish an annual budget "crosscut" to comprehensively track all federal wildfire spending and accomplishments. (see also Commission recommendation 123).

Tracking current wildfire-related expenditures is difficult among the multiple land management, research, homeland security, and defense agencies involved. A budget "cross-cut" performed annually would serve to improve tracking and accountability and budget justifications. Such an approach would also improve interagency coordination and consultation regarding funding expenditures and requests. Care will need to be given to track accomplishments representative of the various stages of the lifecycle of mitigation projects, (e.g., acres treated by thinning; acres treated by burning following thinning; NEPA decision reached). Budget performance needs to account for progress across the entire lifecycle of projects against the backdrop science-based landscape resilience targets.

D. Agencies and Congress should change the system of land management agency performance metrics beyond acres treated, timber volume output, or acres burned to measure success. (see also Commission rec 147).

Performance measures have proven to be important drivers in resource prioritization and accountability at highly decentralized federal land management agencies such as the U.S. Forest Service and Bureau of Land Management. A focus on outputs, rather than outcomes often results in implementation that fails to achieve wildfire resilience goals and often prioritizes low-cost project implementation. Success and resource allocation should be based upon 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. A comprehensive and transparent approach across the federal government would allow for better resource allocation among agencies, improve tracking of accomplishments and support justifications for future spending levels.

E. Congress should ensure that agencies have sustained funding to implement and maintain wildfire risk and resilience investments. (see also Commission recommendations 130 and 132).

The historic investments made in wildfire resilience through the IRA and IIJA represent a fraction of estimated need, and through their time-limited nature, fail to support the long-term maintenance of wildfire mitigation and recovery investments. Predicated on improved tracking and accountability of investments, Congress must consider sustained funding to continue targeted implementation and maintenance of wildfire resilience investments. The urgency of the wildfire crisis demands Congress, and truly all corners of government, treat this as the national emergency that it is.

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