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.

DON HANKINS is a Professor at California State University, Chico and Field Director for the Big Chico Creek Ecological Reserve. His expertise spans pyrogeography, water stewardship, and conservation. He draws upon his academic and cultural knowledge as a Miwkoʔ traditional cultural practitioner, in applied research and projects focused on landscape scale prescribed and cultural burns; ecocultural restoration; and environmental policy. Don has been involved in various aspects of land stewardship and conservation for a variety of organizations and agencies including federal and Indigenous entities in North America and Australia. He is internationally recognized for his work on Indigenous fire. He is an advisor to the Indigenous Peoples Burning Network; founder, co-lead and recorder of the Indigenous Stewardship Network; and an appointed member of the California Wildfire and Forest Resilience Task Force executive committee.

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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).

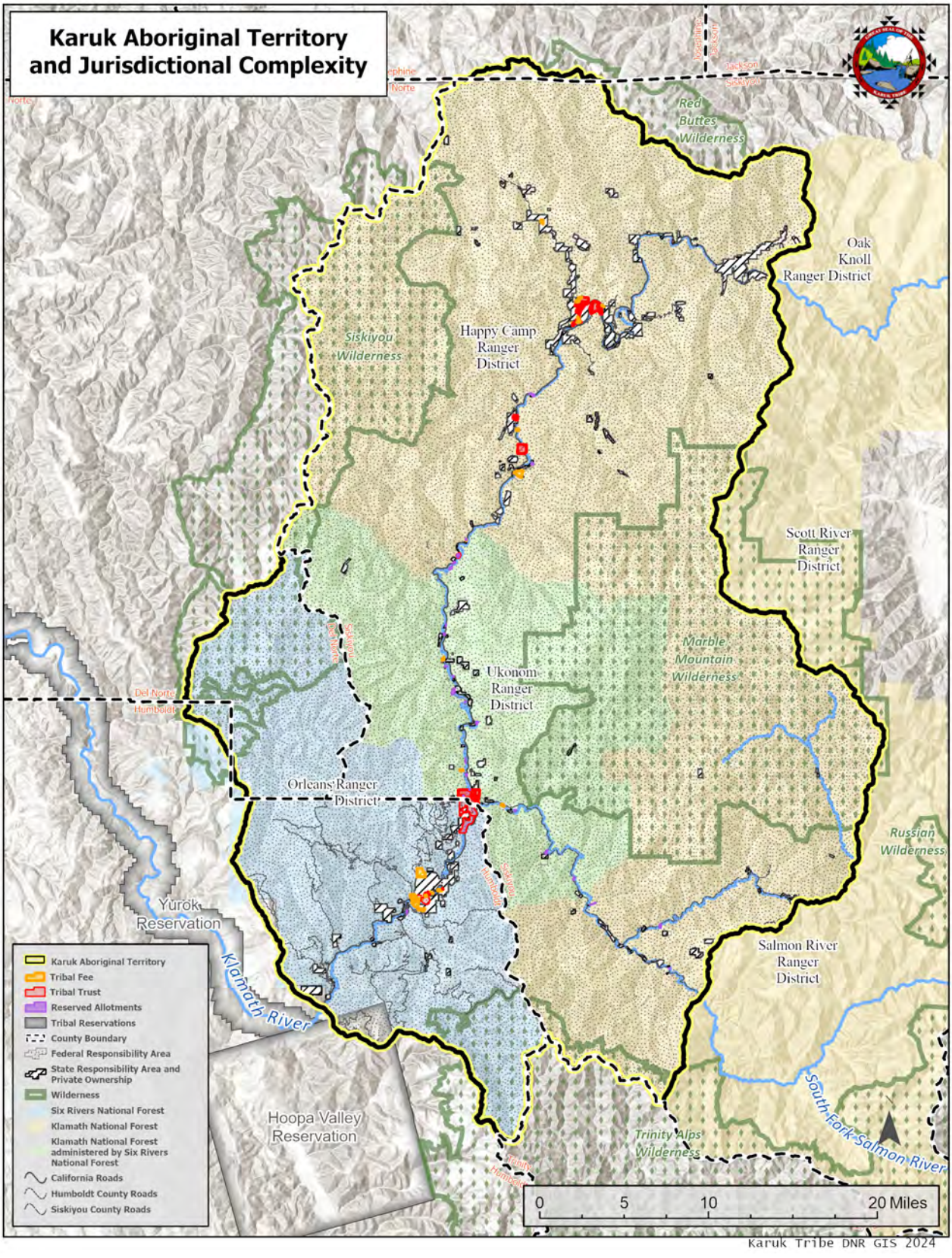

Figure 2. Map of Karuk Aboriginal Territory and Jurisdictional Complexity. Karuk Aboriginal Territory and other lands fall within Karuk jurisdiction, however as shown on this map, there are additional overlapping and joint jurisdictions asserted by other entities as well, resulting in the need for collaboration, 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.

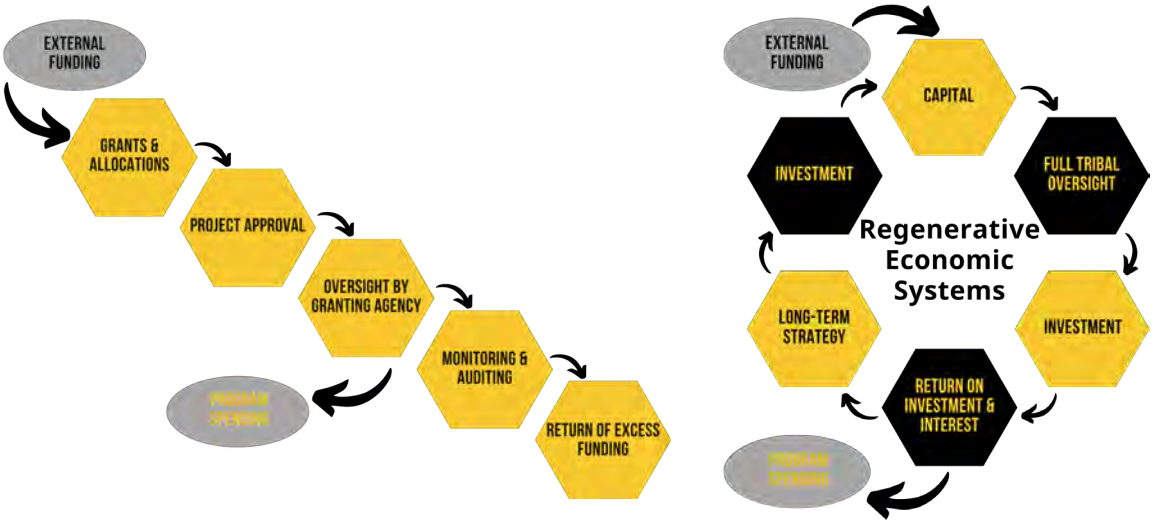

FIGURE 3 . EXISTING TRIBAL STEWARDSHIP FUNDING MODELS VS. REGENERATING ECONOMIC SYSTEMS. Current funding models constrain the ability of Tribes to grow stewardship programs and develop self-sustaining programming. In contrast, regenerative economic systems are centered upon Tribal leadership and authority 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.

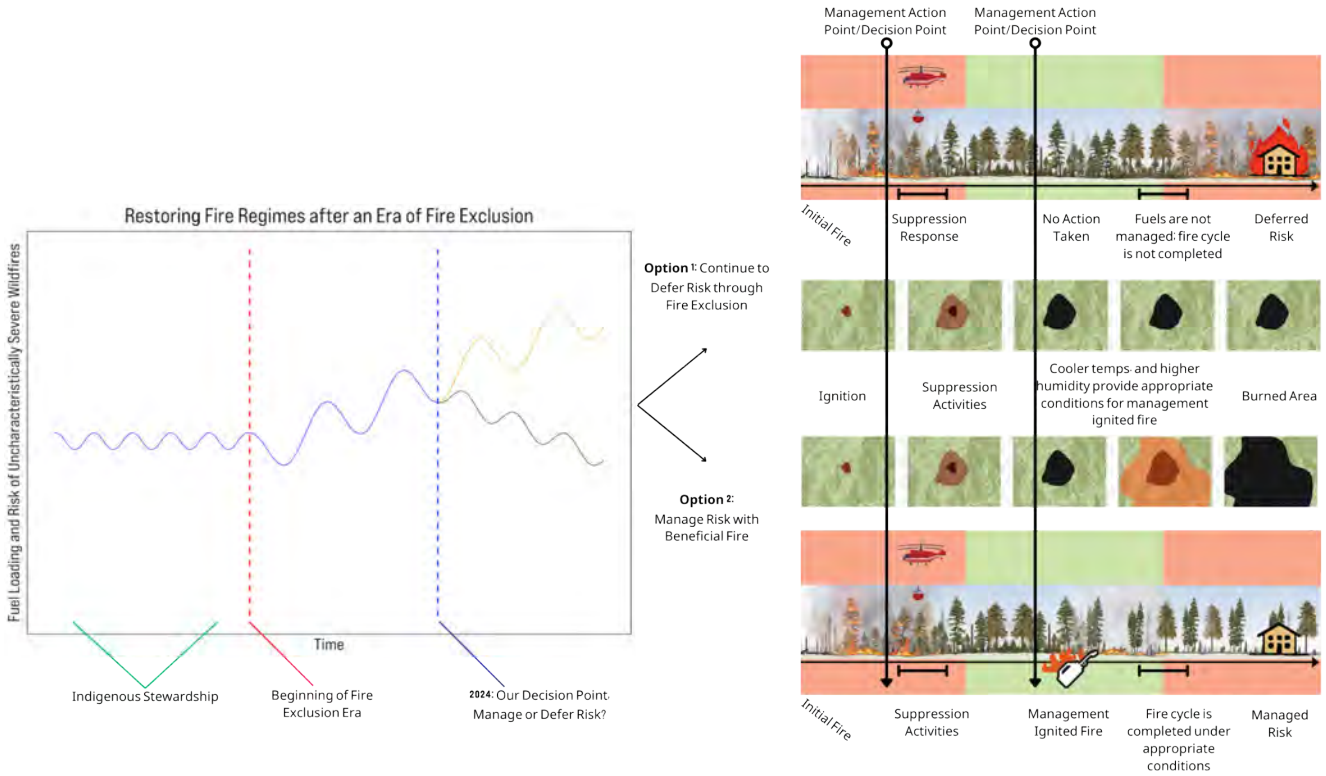

FIGURE 4. We Have a Choice Between Deferring or Managing Our Wildfire Risk. Which Option Will We Choose? We expand on Figure 1 to paint a further picture of our current options. In Option 1, which is the current fire suppression scenario, fire management activities conclude with the initial suppression 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.

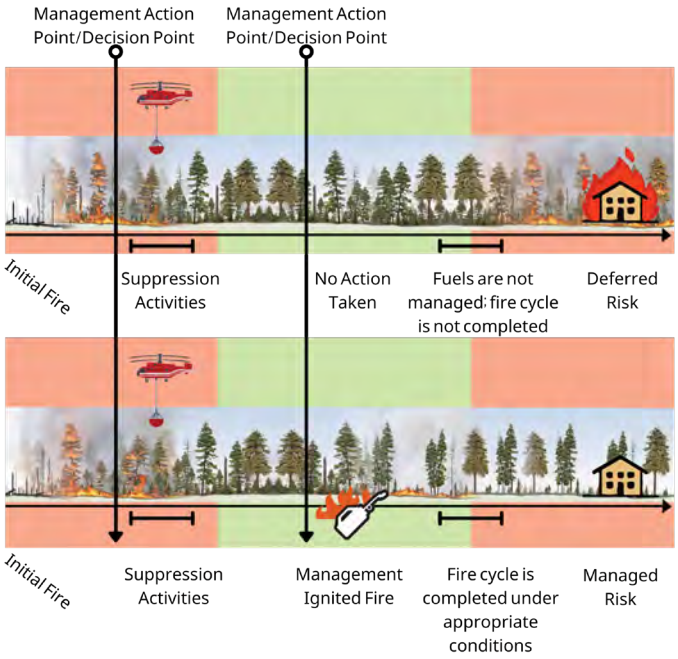

FIGURE 5. Choosing Option 2: Managing Risk through Management-Ignited Fire. Concluding fire management activities with the initial suppression response continues to defer risk, resulting in the risk of uncharacteristically severe wildfire. Management ignited fire is one way to manage risk and mitigate 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).

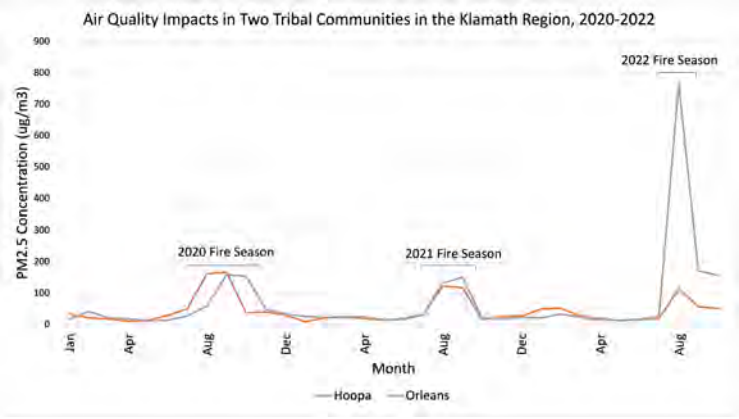

FIGURE 6. Air Quality Impacts in Two Tribal Communities in the Klamath Region, 2020-2022. This graph shows fine particulate matter concentrations in two tribal communities in the Klamath Region, which regularly experience smoke intrusion events. High PM2.5 values seen from late July through September 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.'").

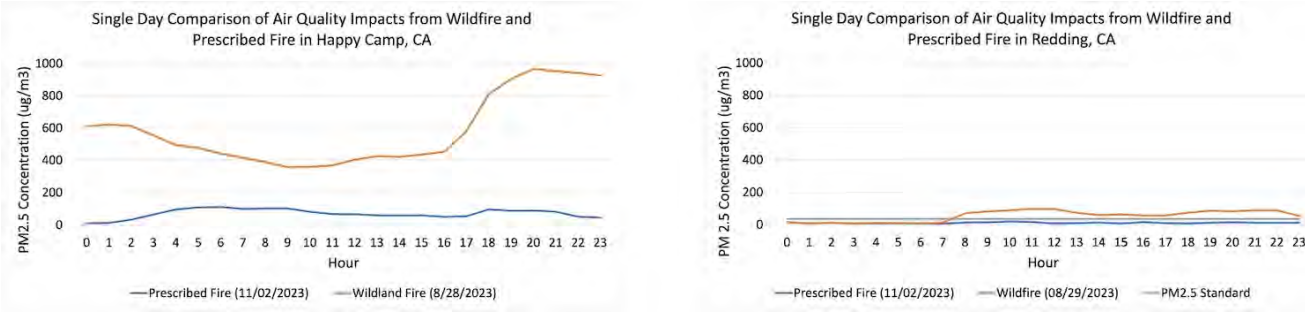

FIGURE 7. Single Day Comparison of Air Quality Impacts from Wildfire vs. Prescribed Fire.

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.

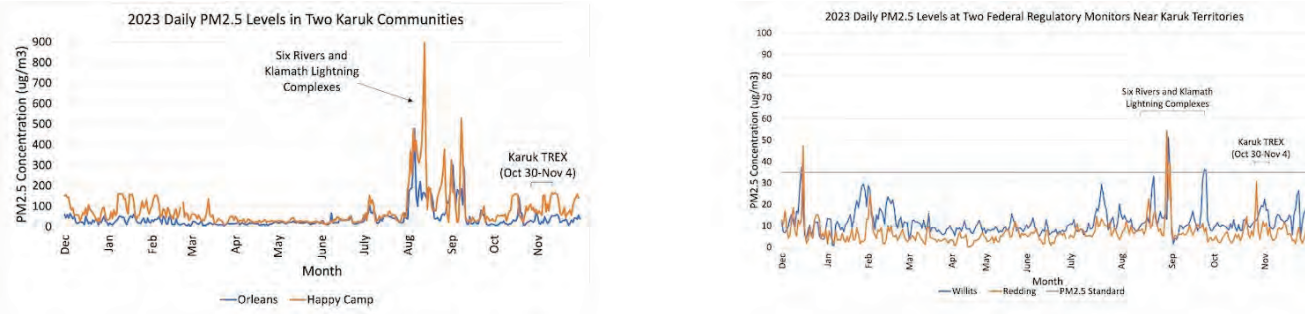

FIGURE 8. 2023 Daily PM2.5 Levels Near Karuk Communities.

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=468717e399fa4238ad86861638765ce1. 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.