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Assignment Part Three _ Final Research Essay

HRSJ 5250_01_ Risk, Place, and Social Justice in a Turbulent World

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In 2023, British Columbia (BC) experienced an unprecedented wildfire catastrophe with 2.8 million hectares burned, 48,000 people displaced, and over $1 billion spent on suppression (Daniels et al., 2025, p. 2). By peak season in July and August, 481 wildfires burned simultaneously across the province (Daniels et al., 2025, p. 2). Yet as devastating as this season appeared, Daniels et al. (2025) argue it was "not an aberration; rather, it was a direct consequence of over 100 years of altered human, forest, wildfire relationships, exacerbated by climate change" (p. 2). The 2023 crisis was not a natural disaster, but a predictable outcome of colonial fire suppression policies that actively generate the risks they claim to prevent while systematically excluding Indigenous fire stewardship knowledge developed over millennia.

This paper will examine three interconnected dimensions of wildfire governance in BC: how colonial suppression-based practices create socioeconomic inequities across health, economic, environmental, and governance dimensions; how Indigenous fire stewardship provides proven alternatives grounded in what scholar's call "situated resilience"; and what systemic changes are necessary to center Indigenous decision-making authority in wildfire management. The central argument is that effective wildfire risk reduction requires addressing historical power imbalances and goes beyond simple technical solutions but requires recognizing Indigenous sovereignty and redistributing resources to enable Indigenous-led governance. The question is not whether cultural burning works, evidence proves it does, but rather what structural transformations would enable Indigenous communities to exercise fire stewardship authority over traditional territories while addressing compounding socioeconomic barriers that currently constrain implementation.

This paper will then present three discussion point, the first, tracing the historical criminalization of Indigenous fire practices from the 1874 Bush Fire Act through the 1910 Fulton

Commission, examining how colonial suppression generates interconnected risks across four dimensions. Second, examining Indigenous fire stewardship as 'situated resilience', demonstrating why technical extraction of Indigenous knowledge fails without governance transformation and how Indigenous practices maintain ecological relationships that suppression broke. The third, proposes a path forward that integrates technical measures, socioeconomic justice, and genuine sovereignty recognition, drawing on international examples from Aotearoa/New Zealand and Australia alongside a BC domestic T'exelc case to illustrate how Indigenous-led governance transforms environmental management when sovereignty is recognized.

To understand contemporary wildfire crises requires examining how colonial policies deliberately displaced Indigenous fire stewardship. In 1874, BC passed the Bush Fire Act, legislation that "criminalized Indigenous fire practices by settler governments" and "interrupted Indigenous land use practices throughout much of North America" (Morgan & Burr, 2024, p. 1927). The Act emerged not from fire safety concerns but from economic interests, where "settlers realized wildfires threatened timber marketability and the profitability of lands seized by the Crown and enclosed by private interests" (Morgan & Burr, 2024, p. 1926). The law criminalized leaving fires burning during summer or allowing fire to spread onto another's property, establishing colonial control over fire to enable resource extraction rather than ensure safety, prioritizing profit over stewardship.

The 1910 Fulton Commission institutionalized these practices as official policy. Building on the Bush Fire Act's ethos, the Royal Commission of Forestry led to the 1912 formation of the BC Forest Branch, which entrenched fire control as the primary duty of forest management under the settler colonial state (Morgan & Burr, 2024, p. 1926). The Commission responded to

severe fires in 1910 that threatened the timber industry and enabled “the opening up” of land, advancing “underlying settler interests in and capital holdings over Indigenous lands” through “Indigenous erasure and dispossession” to facilitate “wealth extraction by way of the lumber industry” (Morgan & Burr, 2024, p. 1927). For seventy years, from 1910 to 1979, fire suppression remained BC's official wildfire policy, creating the fuel accumulation that defines BC's forests today (Daniels et al., 2025, p. 3). Combined with climate change, this legacy has produced the intense and extreme wildfire conditions BC has faced since 2017.

The Commission's gender politics were equally significant as reveals the intersectional dimensions of colonial violence. Before 1910, “Indigenous women were recognized fire authorities in BC, where fire practices and legal powers often operated through matriarchal systems” (Morgan & Burr, 2024, p. 1918). “Syilx scholar Jeannette Armstrong speaks of Syilx women's roles as fire knowledge holders” (Morgan & Burr, 2024, p. 1922). Yet “women and Indigenous people were excluded from the political decision-making structures of fire management practices” (Morgan & Burr, 2024, p. 1918) which no women testified or gave evidence before the Commission. This removal served a deliberate purpose, by excluding Indigenous women's fire knowledge, the Commission could “frame the landscape as unmanaged, terra nullius, justifying colonial control” (Morgan & Burr, 2024, p. 1927).

The Commission report “exemplifies gender-based violence in environmental governance, where deliberate exclusion of Indigenous women's knowledge and legal authority enabled the masculinization of forestry and fire management” (Morgan & Burr, 2024, p. 1927). This founding document established patterns that still persist today, where, as Morgan and Burr (2024) argue, “the suppression paradox that proliferates the landscapes that we consider home is embedded in and reproduces a colonial logic that widens social and economic gaps that already

exist within our communities" (p. 1923). The exclusion of women with fire governance was not just by chance, but instrumental with supporting colonial claims that Indigenous landscapes were unmanaged and therefore available for occupation.

Colonial fire suppression does not simply fail; it actively produces interconnected socioeconomic risks that burden Indigenous communities in fire-prone regions more severely and operate through four interconnected dimensions: health injustice, economic inequality, environmental degradation, and governance exclusion. Each dimension reinforces the others, creating layered vulnerabilities such as economic marginalization prevents infrastructure investment, inadequate infrastructure worsens healthcare outcomes, health crises drains economic resources, and governance exclusion perpetuates the entire cycle – each cannot be addressed in isolation.

The first risk dimension is health injustice and disproportionate exposure. Wildfire smoke creates severe health inequities. "Elevated levels of fine particulate matter (PM2.5) from wildfire smoke are associated with increased all-cause mortality, exacerbation of respiratory diseases, and cardiovascular events" (Lopes et al., 2025, p. 3). However, these health impacts do not fall equally, "nearly 18.9% of people on Indigenous reserves in Canada live in higher fire-risk areas, compared to just 2.4% of the non-reserve population" (Erni et al., 2024, p. 13). Vulnerability is uneven as health impacts are most severe under high-emission pathways, but "population distribution and adaptive capacity significantly influence outcomes, with children, older adults, and people of low socioeconomic status facing greater risks of adverse health effects from smoke exposure" (Lopes et al., 2025, pp. 3, 13).

Indigenous communities face multiple barriers that worsen with smoke exposure and health outcomes such as "inadequate housing cannot keep smoke out, and remote locations mean

limited access to healthcare" (Erni et al., 2024, p. 8). When wildfire smoke arrives, communities typically lack protective resources such as air filtration systems and early warning systems, as well as healthcare infrastructure to respond to smoke-related illnesses. The health "consequences are especially severe for children: wildfire particulate matter shows particularly strong associations with asthma-related emergency room visits among children and adolescents" (Lopes et al., 2025, p. 3). In communities with inadequate housing and limited healthcare access, each fire season significantly magnifies the health disparities.

Remote locations and chronic underfunding mean Indigenous communities lack the adequate healthcare to address smoke-related illness. "When respiratory or cardiovascular problems arise from wildfire smoke exposure, local medical facilities are often nonexistent and healthcare providers trained in smoke-related conditions are scarce" (Erni et al., 2024, p. 8). This health risk dimension intensifies economic vulnerabilities as medical evacuations drain limited community resources, chronic illness reduces workforce capacity, and emergency responses require funding that could otherwise support prevention.

The second dimension is economic injustice and resource misallocation. The economics of wildfire risk in BC expose stark imbalances in resource allocation. In 2023 alone, insured losses from the Okanagan and Shuswap wildfires exceeded $720 million, while provincial suppression costs reached approximately $817 million, expected to exceed $1 billion (Daniels et al., 2025, pp. 2, 18; Insurance Bureau of Canada, 2023). This reflects a broader pattern: between 2003 and 2023, BC invested $300 million in fuel mitigation treatments on 40,000 hectares while spending over $6 billion on suppression, with indirect costs associated with evacuations, economic disruption, rebuilding, recovery, and health impacts reaching tens of billions of dollars (Daniels et al., 2025, p. 7). Funds flow toward reactive response instead of prevention. This

imbalance highlights that “Indigenous fire stewardship receives a fraction of wildfire budgets, despite evidence that cultural burning reduces fuel loads and lowers the risk of severe wildfires that threaten homes, businesses, and livelihoods” (Hoffman et al., 2022, p. 474).

This reflects deliberate colonial priorities such as “mismanagement of finances, infrastructure, and essential services on reserves has produced chronic poverty, forcing Indigenous leaders to pursue funding for basic necessities such as clean drinking water and housing rather than long-term planning” (Hoffman et al., 2022, p. 474). The result is a system where Indigenous communities face the greatest wildfire exposure with minimal access to prevention resources or recovery funding. Economic marginalization creates a cycle where communities most exposed to wildfire risk have the least economic capacity to address it. Technical solutions such as air filtration systems, smoke monitoring equipment (Lopes et al., 2025, p. 11), and training programs for cultural burning practitioners, remain inaccessible when communities lack resources, regardless of effectiveness. This economic risk dimension directly impacts environmental vulnerabilities such as home repairs to reduce smoke infiltration are prevented due to poverty, evacuation is limited by infrastructure and mobility, and governance restricts the capacity to implement fire stewardship practices.

The third risk dimension is environmental injustice and spatial inequality. Wildfire risk in Canada follows the geography of colonial dispossession. Indigenous communities were placed on marginal lands with inadequate housing and poor infrastructure with “nearly 18.9% of people on Indigenous reserves live in high fire-risk areas, compared to just 2.4% of the non-reserve population” (Erni et al., 2024, p. 13). A deliberate policy in which reserves were established in remote, forested regions where fire suppression policies under the Bush Fire Act, combined with climate change, have been compounded by those communities lacking capacity to respond.

Inequality is impacted most in highest-risk zones, with “Indigenous people on reserves making up only 2.4% of the study area's population, yet they account for 15.9% of people in high-risk zones and 37.2% of those in very high-risk zones, dramatic overexposure” (Erni et al., 2024, p. 13). Structural neglect worsens this pattern as “more than 44.2% of on-reserve residents live in dwellings needing major repairs, compared to just 6.7% of the total population, a housing crisis that amplifies every dimension of wildfire impact, from smoke infiltration during fire season to displacement during evacuations to barriers to recovery afterward” (Erni et al., 2024, p. 8).

These overlapping vulnerabilities as Erni et al. (2024) explain, on-reserve “communities are more exposed to hazard impacts than non-reserve communities due to their strong connection and socio-cultural reliance on their traditional territories” and “face many challenges, such as lower economic capacity, remoteness and isolation from major populated centers and essential services, higher building and population densities, as well as infrastructure gaps and deficits in some regions” (p. 13). Indigenous communities face infrastructure gaps that compound wildfire vulnerability, while limiting fire stewardship capacity. Housing deficits mean communities cannot protect residents from smoke exposure, “most Indigenous communities or First Nations reserves rely on distant municipal or provincial agencies to respond to fires, and community members, particularly young children and elders, develop high stress and anxiety as fire seasons approach” (Erni et al., 2024, p. 13). Limited transportation infrastructure restricts both emergency evacuation and mobility access to conduct cultural burns. This environmental risk dimension reinforces governance deficits because it makes it impossible to implement fire stewardship due to deficits with infrastructure, and spatial isolation to have a voice in management decisions.

The fourth dimension is governance injustice is both a product of the other three dimensions and is perpetuated by colonial control. Provincial agencies control all fire use on Crown land, acting as gatekeepers even when Indigenous Nations seek to exercise their fire stewardship responsibilities. “To conduct cultural burns off-reserve, Indigenous Nations must submit burn plans originally designed for industrial forestry and evaluated almost entirely through Western technical criteria, fuel types, weather indices, smoke dispersion, liability” (Hoffman et al., 2022, p. 474). The consultation process requires time, expertise, and approvals often stretching over months, sometimes ending in permit denial. This outcome limits Indigenous fire practices while keeping final authority within colonial institutions, even as these agencies claim partnership or co-management.

These permit systems also determine whose knowledge counts. Agencies often reduce Indigenous knowledges to "bite-sized chunks of information that can be slotted into Western paradigms" (Muller et al., 2019, p. 401), a practice that, without shifting decision-making power, "simply constitutes further colonialism" (Muller et al., 2019, p. 399). In wildfire governance, knowledge "extracted from an Indigenous employee" lets agencies copy “cultural burning techniques while excluding Indigenous peoples from decisions, reinforcing colonization rather than redistributing authority” (Hoffman et al., 2022, p. 474). Environmental management in settler states depends on who holds power and whose worldview is authoritative as noted by Muller et al., (2021) such as command-and-control fire management displaced Indigenous peoples and suppressed their stewardship. Thereby adding Indigenous perspectives without power transfer simply repackages colonialism in inclusive language. Western fire science extracts Indigenous content that fits established frameworks such as fire use objectives and

biophysical categories like vegetation, fuels, and fire behavior, while "the context gets stripped away" (Copes-Gerbitz et al., 2021, p. 2) and remains in Western worldviews.

What gets “stripped away as "context" reveals deliberate extraction such as spiritual and cultural traditions, interconnectedness, intergenerational knowledge transmission, decision-making, and adaptation, and critically, the political and governance authority where Indigenous fire stewardship operates” (Copes-Gerbitz et al., 2021, p. 2). Despite calls for “more meaningful engagement” through Indigenous-led practice, fire resilience literature appropriates knowledge while excluding governance. This “narrowly define[s] what constitutes appropriate knowledge” by extracting content while “discounting Indigenous perspectives of resilience,” colonialism repackaged as collaboration (Copes-Gerbitz et al., 2021, p. 2). Governance exclusion closes the loop, where Indigenous communities cannot redirect economic resources toward prevention without decision-making authority, thereby, the cycle of vulnerability will continue.

To move beyond technical extraction, it requires understanding Indigenous stewardship through a theoretical framework that centers context. The concept of “situated resilience” defines the problem and offers a corrective approach that demonstrates “knowledge is fundamentally changed if it is viewed solely as content and extracted from the broader social, cultural, and political contexts within which it sits” (Copes-Gerbitz et al., 2021, p. 2). The framework requires “acknowledging knowledge as contested and embedded within asymmetric structures of power” rather than accepting extraction as neutral science (Copes-Gerbitz et al., 2021, p. 2). The critical question changes to “whose resilience is being enabled and how it may affect others?” (Copes-Gerbitz et al., 2021, p. 3). Current approaches enable colonial control masked as collaboration, or extraction disguised as partnership or co-management.

This framework aligns with Indigenous epistemologies because “the context of knowledge creation” is inseparable from relationships between people, fire, and land (Copes-Gerbitz et al., 2021, p. 2). Conventional Western approaches extract or “capture and dislocate” knowledge while preserving colonial control. Where colonial suppression produces risk, Indigenous fire stewardship offers proven alternatives developed over millennia. Understanding these alternatives requires moving beyond technical approaches and knowledge is inseparable from the people, practices, land relationships, and the governance systems that sustain it.

Indigenous fire stewardship differs fundamentally from prescribed burning in objectives, techniques, and practitioners. Cultural burning is holistic and “significantly reduces wildfire risk by lessening fuel loads, enhancing pyro diversity, and managing complex resources for the benefit of all Canadians” (Hoffman et al., 2022, p. 465). “Unlike prescribed burning conducted by trained professionals using extensive protective equipment, cultural burning is a family practice in which Elders and children actively participate, and special protective equipment is often unnecessary because fire intensity remains low” (Hoffman et al., 2022, p. 466). This intergenerational participation is not secondary, but how knowledge is transmitted and how relationships between people, fire and land are maintained and interconnected.

Intergenerational fire knowledge demonstrates why Indigenous fire stewardship cannot be reduced to technical information. Historical accounts document how “Christine Armstrong directed the men to set fires to forested areas in specific places close to the Penticton village, with clear explanation of the importance of burning: that it took care of the land by feeding the soil and initiating new growth” (Morgan & Burr, 2024, p. 1922). This knowledge includes not just when and where to burn but fire's role in maintaining healthy ecosystems, protecting cultural resources, and ensuring food security. As Morgan and Burr (2024) explain, “Indigenous

knowledge is built on relationships and experience, embodied in practice and embedded in language and land" (p. 1929). Fire is understood as relational and something that maintains reciprocal relationships between people and place rather than a technical tool to be controlled or applied.

Despite proven effectiveness, Indigenous communities face substantial barriers to re-engaging cultural burning. Forests "once carefully managed with fire have accumulated flammable fuels as a result of over a century of fire suppression and timber-focused forest management" (Hoffman et al., 2022, p. 474). Suppression erased landscapes maintained through regular burning. Where Indigenous fire stewardship created "patch mosaics of meadows, grasslands, and forests with varying composition, structure and age classes" (Daniels et al., 2025, p. 4), suppression produced hazardous fuel loads, creating technical barriers alongside governance and funding constraints.

Although "Indigenous peoples maintain fire stewardship and continue as knowledge keepers, Western-trained fire scientists often remain skeptical of or unfamiliar with Indigenous Ecological Knowledge" (Hoffman et al., 2022, p. 464). This skepticism is not science-based, but it is colonial and it continues to keep Indigenous peoples out of fire management decisions despite their proven experience.

Even where policy frameworks nominally support Indigenous fire stewardship, socioeconomic inequities prevent communities from exercising governance authority and that effective fire stewardship requires not just decision-making power but also targeted education, policy interventions, and collaborative strategies towards bridging the gaps (Lopes et al., 2025, p.13). "Socioeconomic barriers constrain the resources necessary for knowledge transmission to younger generations. Youth need training to conduct interviews following Nation-specific

protocols for documentation and storage of Indigenous Ecological Knowledge, engaging with First Nations firefighters, Elders, and traditional land users to organize land-based activities, including cultural burning" (Hoffman et al., 2022, p. 468). Limited funding for education programs, training, and youth engagement creates gaps in intergenerational knowledge transmission. Without capacity to transmit knowledge, governance authority is empty, where communities gain minimal decision-making power and lack of resources for trained practitioners to implement.

A path forward requires the dismantling of colonial structures and cannot be accomplished in isolation. Addressing wildfire risks requires integrating technical measures, socioeconomic justice, and Indigenous fire stewardship. Current co-management frameworks fail because they maintain colonial power structures while performatively appearing as collaboration.

Technical measures remain necessary for early warning systems, smoke-ready buildings with filtration, indoor air quality monitoring, and climate modeling (Lopes et al., 2025, p. 10). However, "these must be implemented within governance frameworks that center Indigenous decision-making authority rather than treating Indigenous knowledge as supplementary to Western science. Resources are constrained, making prioritization crucial. Investing in Indigenous fire stewardship protects social, ecological, and cultural resources while significantly reducing long-term suppression costs" (Erni et al., 2024, pp. 2–3, 14).

Governance transformation requires simultaneously "addressing socioeconomic inequities that constrain implementation. This means redirecting resources from billion-dollar suppression budgets to fund infrastructure improvements, healthcare capacity, economic development, and education programs in Indigenous communities" (Hoffman et al., 2022, p. 474). Without material investments, looking beyond management discourse and transferring

decision-making authority alone sets communities up to fail because it is driven by economic interests, thereby granting responsibility without the resources to be successful.

Genuine and effective wildfire governance requires recognizing Indigenous sovereignty over traditional territories, not just consultation rights but actual sovereignty. When Indigenous nations become sovereign partners in environmental management, "the power structures that underlie decision-making are deeply and productively challenged and decolonized" (Muller et al., 2019, p. 407). This means eliminating permit systems requiring government permission for cultural burning, recognizing Indigenous knowledge as equally legitimate to Western science. International examples demonstrate that such transformation is not idealistic, but practical, producing innovative outcomes that challenges Western assumptions while improving the environment.

In Aotearoa/New Zealand, Indigenous nations are making their worldviews accessible to Western environmental managers through legal advancement. "The Te Awa Tupua (Whanganui River system) has been granted status as a legal being with its own rights" (Muller et al., 2019, p. 405), recognizes the river as living, united entities with their own rights. The Whanganui Iwi (tribes) have been fighting against the Crown for generations over dispossession and governance, which both Nations never ceded their control of their territories under the Treaty of Waitangi in 1840 (Muller et al., 2019, p. 405). In 2017, Ruruka Whakatupu a Te Mana o te Iwi o Whanganui agreement was signed and an $80 million NZ financial settlement represented "a profound alternative to the human presumption of sovereignty over the natural world. It restores to Tuhoe their role as kaitiaki (guardians) and it embodies their hopes of self-determination" (Muller et al., 2019, p.406).

This framework challenges Western assumptions of 'human dominance' by giving "nature" a voice, as a non-human legal entity, making the Whanganui people and the river inseparable. Treating the river as a living relative, marks a meaningful shift toward Indigenous-led, nation-building environmental governance grounded in Māori sovereignty and ontological pluralism (Muller et al., 2019, p.406). This legal recognition acknowledges historical breaches while asserting Māori worldviews, and their deep relationship between people and place, along with governance systems. This is not just symbolic, it transfers decision-making authority and resources to the Indigenous guardians who can now protect the river according to their values and historic knowledge systems (Muller et al., 2019, p. 406).

Australia's 2009 Kungun Ngarrindjeri Yunnan Agreement (KNYA) provides another example of genuine co-governance that is similar to New Zealand's Te Awa Tupua. Muller et al. (2019) demonstrate how formal recognition of Indigenous governance can transform environmental management. In 2014, the "State of South Australia formally recognized Ngarrindjeri "Speak as Country" through a deed with the Department for Environment and Water, embedding their philosophy of Ruwe/Ruwar, the interconnection of land, water, spirit, and all living things, into co-governance processes" (Muller et al., 2019, p.406). This recognition went beyond consultation but toward genuine power-sharing.

During the Millennium Drought, Ngarrindjeri negotiated emergency measures for the Murray River that "ensured interventions minimized damage to Ngarrindjeri Ruwe/Ruwar and included independent advice from Ngarrindjeri and expert panels" (Muller et al., 2019, p.406). These innovations led to the 2015 Australian River prize, demonstrating that Indigenous led governance produces both culturally appropriate and effective environmental outcomes such as how the Te Awa Tupua, KNYA established a precedent, by recognizing a river as "an indivisible

and living whole" with inherent rights (Muller et al., 2019, p.405). Although both cases address water and wetland management rather than wildfire, they are significant examples of Indigenous-led, nation-to-nation environmental governance and demonstrate how legal recognition and Indigenous sovereignty can produce culturally-grounded, equitable governance that challenges Western human–nature hierarchies and advance Indigenous ontologies and epistemologies (Copes-Gerbitz et al., 2021, p.10).

Both international examples share common ideas that recognize Indigenous worldviews as equally valid to Western science, they transfer decision-making authority to Indigenous nations, provide resources for implementation, and acknowledge the deeper relationship between Indigenous people with their territories.When Indigenous sovereignty is recognized and supported, Nations can be innovative in producing solutions grounded in their own values and ways of knowing, contributing to the decolonization of environmental management and creating space for new ways of being "in place" (Muller et al., 2021).

Domestically, an example in BC draws on parallels to the international examples. The T'exelc (Williams Lake First Nation) practices Indigenous-led fire stewardship despite institutional barriers, proving alternative governance is practical, not idealistic (Copes-Gerbitz et al., 2021). The concept of "situated resilience" provides the framework for understanding the T'exelc case. This approach challenges researchers, government, and managers to move beyond preoccupation with collecting the right data toward acknowledging knowledge as contested and embedded within asymmetric structures of power (Copes-Gerbitz et al., 2021, p.2).

The T'exelc case study examined fire knowledge where land disputes persist and wildfires threaten communities, asking What is the context of T'exelc fire knowledge, and how can it guide forest management? Copes-Gerbitz et al. (2021) reveal two key findings: first,

intentional fire use is now a "lost practice" disrupted by colonialism; second, future forest management should center on restoring T'exelc knowledge more broadly, recognizing it is rooted in respect and achieved through place-based intergenerational knowledge exchange. The 2017 wildfire season saw Indigenous communities work to shift this imbalance by revitalizing fire stewardship through Indigenous-led approaches.

The T’exelc case demonstrates what the international examples prove, that integrating Indigenous knowledge situates Indigenous resilience in decision-making, providing guidance for managers seeking to support Indigenous led approaches that address modern fire risk and systemic biases against Indigenous values, needs, and concerns. Like Te Awa Tupua and the KNYA, the T'exelc case illustrates that Indigenous knowledge is centered rather than extracted, when governance authority is recognized rather than appropriated, and when resources support implementation rather than consultation, effective environmental management becomes possible. The connection between all three is that sovereignty recognition enables Indigenous nations to operate from their own ways of being and value systems, and the innovative approaches to environmental management challenges that Western frameworks.

The 2023 BC wildfire crisis was not inevitable, but it was the predictable outcome of policy choices made over a millennium. These choices criminalized Indigenous fire stewardship, established suppression as exclusive policy, and created conditions for catastrophic fuel accumulation. Current wildfire crises demonstrate how colonial suppression actively produces socioeconomic risks across health, economic, environmental, and governance dimensions, amplifying the overlapping the risks patterns of vulnerabilities for Indigenous communities.

Social position fundamentally shapes exposure to these risks. Indigenous identity, socioeconomic status, and geographic location determine whether one lives in high fire-risk

areas, has adequate housing to protect against wildfire smoke, can access healthcare when illness strikes, and possesses resources to adopt protective measures. “Nearly 18.9% of Indigenous reserve residents face high fire risk compared to 2.4% of the non-reserve population, revealing how historical land dispossession compounds with ongoing socioeconomic marginalization to concentrate vulnerability “(Erni et al., 2024, p. 13).

Three types of gaps perpetuate these inequities. Knowledge gaps include systematic exclusion of Indigenous fire stewardship from wildfire management despite millennia of proven effectiveness. Policy gaps include co-management systems that extract Indigenous knowledge while retaining colonial decision-making authority. Implementation gaps arise from socioeconomic inequities including infrastructure deficits, economic marginalization, healthcare barriers, and constrained educational resources, that all prevent communities from exercising governance even where financially granted authority.

To move forward requires comprehensive approaches of integrating technical measures, socioeconomic justice, and Indigenous fire stewardship within genuinely transformed governance structures. This means centering Indigenous decision-making authority, redirecting resources from suppression to prevention, recognizing Indigenous sovereignty over traditional territories, and addressing material inequities that constrain implementation. The question is not if such transformation is possible, the international and domestic examples prove it is, but if there is the political will to dismantle colonial power structures rather than simply improving technical capacity.

These examples further demonstrate that when Indigenous nations are recognized as sovereign partners with decision-making authority, when resources support implementation rather than consultation, and when governance frameworks center Indigenous worldviews rather

than extracting content to fit Western paradigms, the result can be transformative. Legal personhood for rivers, co-governance agreements embedding Indigenous philosophy, and community led fire stewardship all illustrate the same thing, that Indigenous sovereignty produces innovative, equitable outcomes that command-and-control approaches cannot achieve.

Until we address who holds decision-making authority and who has resources to implement their knowledge, BC will continue spending billions on crises, through the very policies meant to prevent them. The impacts from the 2023 wildfire smoke tells one story of failure, but the international and domestic examples of Indigenous led governance tells another, that resilience and transformation through relationships, long held between Indigenous people, fire, and the land work.

References

British Columbia Ministry of Forests. (2023). Wildfire season summary. Province of British Columbia. https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-history/wildfire-season-summary

Burr, J. (2024). Listening to fire knowledge in and around the Okanagan Valley. BC Studies, (220), 93–108.

CBC News. (2023, June 13). B.C. is burning through its wildfire budget well before the end of fire season. https://www.cbc.ca/news/canada/british-columbia/bc-wildfire-costs-2023-1.6875171

Confederated Salish and Kootenai Tribes. (2023). Our priorities: Tribal government mission, vision, and resolutions. https://fwrconline.csktnrd.org

Copes-Gerbitz, K., Hagerman, S. M., & Daniels, L. D. (2021). Situating Indigenous knowledge for resilience in fire-dependent social-ecological systems. Ecology and Society, 26(4), Article 25. https://doi.org/10.5751/ES-12757-260425

Daniels, L. D., Dickson-Hoyle, S., Baron, J. N., Copes-Gerbitz, K., Flannigan, M. D., Castellanos-Acuna, D., Hoffman, K. M., Bourbonnais, M., Wilkinson, S. L., Roeser, D., Harvey, J. E., Laflamme, J., Tiribelli, F., Whitehead, J., Leverkus, S. E. R., & Gray, R. W. (2025). The 2023 wildfires in British Columbia, Canada: Impacts, drivers, and transformations to coexist with wildfire. Canadian Journal of Forest Research, 55(1), 1–18. https://doi.org/10.1139/cjfr-2024-0092

Erni, S., Wang, X., Swystun, T., Taylor, S. W., Parisien, M.-A., Robinne, F.-N., Eddy, B., Oliver, J., Armitage, B., & Flannigan, M. D. (2024). Mapping wildfire hazard, vulnerability, and

risk to Canadian communities. International Journal of Disaster Risk Reduction, 101, 104221. https://doi.org/10.1016/j.ijdrr.2023.104221

Government of British Columbia. (1874). Bushfire Act: An Act to prevent the careless use of Fire in Woods and Forests. https://www.bclaws.gov.bc.ca/civix/document/id/hstats/hstats/972279895

Hoffman, K. M., Christianson, A. C., Dickson-Hoyle, S., Copes-Gerbitz, K., Nikolakis, W., Diabo, D. A., McLeod, R., Michell, H. J., Mamun, A. A., Zahara, A., Mauro, N., Gilchrist, J., Ross, R. M., & Daniels, L. D. (2022). The right to burn: Barriers and opportunities for Indigenous-led fire stewardship in Canada. FACETS, 7, 464–481. https://doi.org/10.1139/facets-2021-0062

Insurance Bureau of Canada. (2023, July 27). Okanagan and Shuswap area wildfires cause over $720 million in insured damage. https://www.ibc.ca/news-insights/news/okanagan-and-shuswap-area-wildfires-cause-over-720-million-in-insured-damage

Kehler, S., & Birchall, S. J. (2023). Climate change adaptation: How short-term political priorities trample public well-being. Environmental Science and Policy, 146, 144–150. https://doi.org/10.1016/j.envsci.2023.05.012

Kehler, S., & Birchall, S. J. (2023). Climate change adaptation: How short-term political priorities trample public well-being. Environmental Science and Policy, 146, 144–150. https://doi.org/10.1016/j.envsci.2023.05.012

Lopes, M., Monteiro, A., Mouzourides, P., & Kouis, P. (2025). The health burden of wildfire smoke in a changing climate: Exposure, risks, and strategies for mitigation. Current Opinion in Environmental Science & Health, 46. https://doi.org/10.1016/j.coesh.2025.100631

Muller, S., Hemming, S., & Rigney, D. (2019). Indigenous sovereignties: Relational ontologies and environmental management. Geographical Research, 57(4), 399–410. https://doi.org/10.1111/1745-5871.12362

Pyne, S. J. (2016). Fire in the mind: Changing understandings of fire in Western civilization. Philosophical Transactions of the Royal Society B: Biological Sciences, 371(1696), Article 20150166. https://doi.org/10.1098/rstb.2015.0166

Sloan Morgan, O., & Burr, J. (2024). The political ecologies of fire: Recasting fire geographies in British Columbia, Canada. Environment and Planning E: Nature and Space, 7(4), 1918–1934. https://doi.org/10.1177/25148486241235836

Turtle Island Consulting Services Inc. Project Team. (2021). Giving voice to cultural safety of Indigenous wildland firefighters in Canada: Final report. Turtle Island Consulting Services Inc.