NISHNAWBE ASKI NATION

Wildland Fire GATHERING

Nishnawbe Aski Nation

# WILDLAND FIRE STEWARDSHIP AND TRENDS IN NAN TERRITORY

SUMMARY REPORT

PREPARED BY NORTHWINDS ENVIRONMENTAL SERVICES

NorthWinds Environmental Services

# Report Summary

**Opening Prayer and Remarks, 2025 NAN Wildland Fire Gathering**

I want to acknowledge the Creator for giving us this day and another chance to use the gifts we've been blessed with. As we come together, we ask for guidance and kindness—not just for ourselves, but for those who are struggling, those who've lost loved ones, and those in need of peace. We ask the Creator to bless our gathering and help us treat one another with generosity and respect.

I would like to share a teaching I received, one that speaks to the work ahead of us. My son-in-law gave me a feather, wrapped in blue, green, and yellow. The blue is where we all begin—our early teachings from our families, our elders, our communities. Then comes the green, which is our growth—the way we build on that learning over time. And finally, the yellow—thin, but powerful. That's the true knowledge, the kind we gain through life and reflection. As Indigenous people, the red represents us, and the feather's path shows many directions—but the middle path, the path of peace, is the one we aim to follow. That's what we're here to do: bring our knowledge together, walk that good path, and build something meaningful for our future. So let's begin with that spirit in mind—simple, grounded, and guided by the Creator.

***Elder Barney Batiste***

Indigenous peoples have lived with wildland fire for millennia in the Boreal Forest. First Nations used fire as a tool to manage landscapes and their knowledge systems included a profound understanding of fire-landscape-climate interactions. This knowledge was eroded by colonization but is being regained through conversations with Elders and knowledge keepers, as interest in cultural burning grows across Canada.

In Ontario, First Nations have a disproportionately high vulnerability to wildland fire. The Boreal Shield Ecozone in Northern Ontario, where many NAN communities are found, is identified as an area of high fire risk within Canada. Changes in wildland fire patterns related to climate change and decades of fire suppression are increasing vulnerabilities for First Nations. Wildland fire events affect many aspects of community life including safety, environment, culture, and economy.

Current programs to manage wildland fire risk and human safety are fragmented and difficult to navigate, with a revolving door of funding streams. They put the burden of funding applications, planning and implementation on communities that have multiple complex portfolios to manage,

with often limited local capacity in modern firefighting techniques. Managing wildland fire risk in rural and remote Boreal regions requires an evolving, adaptive and collaborative approach that combines modern fire management with traditional knowledge. It also requires scaled funding and implementation support that responds to local circumstances to facilitate effective community resilience and adaptation strategies.

As part of the decolonization of fire management, there is a growing interest and movement toward reclaiming control of fire stewardship in First Nations across the province. New agencies and partnerships are being established at the grassroots level to rebuild knowledge that has been lost within communities.

> "It needs to be driven from the community up. And, it's time for bureaucracy to change and adapt to meeting those needs because we as First Nations people aren't going anywhere, and we are stepping up to the plate every day to say, you know what, it's time for us to be involved with these policies, and these laws and these things that govern our way of life."
>
> ***Community participant, 2025 NAN Wildland Fire Gathering***

Living with the threat of fire is a constant for NAN communities, increasing under climate change and demands continual learning and adaptation to mitigate risk and impacts on rural and remote communities. In March 2024 and 2025, NAN held Wildland Fire Gatherings that included participants from NAN communities, provincial and federal fire management agencies, community wildland fire program leaders, mental health advocates, first responders and many more.

### Highlights from the 2024-2025 Wildland Fire Gatherings

- Discussion of the complex challenges as well as social and economic impacts of wildland fire on NAN communities.
- Frustration with the fragmented, siloed nature of the wildland fire program resources and funding streams available to First Nations in Ontario.
- The disparity between resources put toward wildland fire response versus education, prevention (e.g., FireSmart) and mitigation.
- The importance of reviving Indigenous fire management practices as part of decolonizing governance of wildland fire management.
- Examples of community-led efforts to plan and implement FireSmart practices, development innovative equipment solutions and coordinate wildland fire response in remote regions of the province.
- Examples of youth leadership and programs to promote inclusion in fire-fighting recruitment efforts.

- Improvements and new approaches to coordination, communication and collaboration between governments and First Nations (e.g., Regional Table, situational briefings, use of social media channels).
- The “messy” state of wildland fire management in Ontario as First Nations and governments work through the evolving institutional landscape to understand each others’ roles.
- The need for holistic thinking that integrates fire and land management, cultural practices and practical responses to emergency preparedness and management in NAN territory.

## Suntouched Thunderbird

**Bailey Schmidt**

Suntouched Thunderbird is a simple, clear lined piece in a classic woodland style. Thunderbirds bring powerful storms, and lightning is said to flash from their eyes. Some stories say that the Thunderbirds bring their fierce storms southward in the fall, and return in the spring.

Natural Resources Canada cites that 45% of wildfires begin with lightning. There is a place in a nature for the renewal fire can bring, but alongside the lighting, the Thunderbird brings rain, and balance is vital.

Despite its heralding of sometimes vicious weather, Anishinaabe lore sees protection in the Thunderbird, and some stories say they are messengers of the sun, delighting in deeds of greatness and moral worth.

TABLE: SUMMARY OF RECOMMENDATIONS

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| **CLIMATE CHANGE** |
| Complete regional, integrated climate vulnerability/wildland fire risk assessments to better understand the specific risks and influence of geography, land use history on people, NAN communities and infrastructure vulnerability. |
| **PREVENTION AND MITIGATION** |
| Based on wildland fire risk assessment, high risk First Nations should implement FireSmart programs by 2026. Moderate risk First Nations should complete a FireSmart strategy by 2027. |
| Both Ontario and Canada should track and report on the development of community Wildland Fire Protection Plans as well as the funding and implementation of FireSmart activities in Indigenous communities. |
| Develop provincial monitoring protocols as a part of emergency recovery to assess the effectiveness of implementing recommended FireSmart activities at a community level. |
| **EMERGENCY PREPAREDNESS, RESPONSE AND RECOVERY** |
| Increase access to equipment funding and operations training. |
| Develop support systems to ensure annual equipment inventory planning, maintenance, and equipment orders in advance of the fire season. |
| Conduct tabletop exercises simulating wildland fire emergencies as well as annual emergency response drills to improve community readiness. |
| Develop communication tools to keep community members up-to-date on wildland fire risk, mitigation options and emergency response protocols. |
| Embed mental wellness strategies and information about resources for mental health support in emergency management program; both for responders and those affected by wildland fire in communities. |
| Invest in resilient infrastructure: Strengthen roads, airports, power systems, and water access in remote communities to better withstand fire and support faster recovery. |
| Pre-position supplies and housing units: Stockpile essential resources (like fire shelters, backup generators, modular homes) in regional hubs or within communities. |
| **COMMUNICATION** |
| Continue to enhance knowledge and participation in Indigenous Partner Briefings and fostering direct contacts through Community Fire Officers. |
| Enhance government use of social media, local radio and direct emails for wildland fire updates. |
| Strengthen roles for Community Fire Officers to act as liaisons and inform local leadership of wildland fire risks and necessary actions. |
| Develop a ‘one window’ approach to working with assigned community Fire Liaison Officers to help direct and support funding application requests related to: wildland fire resilience, emergency preparedness and response, evacuation, hosting and compensation. |

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| **INCREASING LOCAL WILDLAND FIRE STEWARDSHIP CAPACITY** |
| Develop community-based training programs (SP100, SP200, and SP230) with MNR AFFES instructors that specialize in First Nations training, and train-the-trainer programs to minimize barriers to participation. |
| Improve retention by expanding the roles of Forest Fire Rangers to include off-season mitigation work (requires reclassification, increased pay, and institutional change, which pose significant barriers.) |
| Work with MNR, AFFES to identify systemic barriers to employing qualified Indigenous fire crews. |
| Develop fire management training options tailored to specific community needs. |
| **INTEGRATING INDIGENOUS TRADITIONAL KNOWLEDGE** |
| Work with MNR, NRCan and other agencies to increase knowledge of and formalize methods for incorporating traditional fire stewardship knowledge into regional wildland fire mitigation strategies. |
| Collaborate with Elders and knowledge keepers and include youth to preserve cultural knowledge about fire stewardship. |
| Host annual gatherings focused on traditional fire stewardship practices and knowledge transfer. |
| **COLLABORATION** |
| Build partnership and joint governance models with provincial and federal agencies (JEMS and COVID-19 task force as working examples). |
| Collaborate with private contractors to prepare ISC proposals and advocate to higher authorities for support. |
| **FUNDING** |
| Advocate for funding mechanisms that prioritize underserved communities. |
| Develop programs that fund the practical and local on-the-ground challenges of wildland fire management at the community level |
| Provide funding support for rebuilding community psychosocial resilience (e.g., land-based healing, culturally appropriate mental health support) as well as rebuilding infrastructure. |
| Simplify and coordinate funding: Create one-stop funding mechanisms that reduce red tape and align provincial, federal, and Indigenous support systems. Sustained funding is essential to support long-term wildland fire resilience. |
| **FIRST NATIONS FIRE STEWARDSHIP** |
| Create a National Indigenous Incident Command team that works parallel to the Canadian Interagency Forest Fire Centre (CIFFC) to respond to wildfire emergencies. |
| Develop a network of Indigenous and non-Indigenous fire practitioners and researchers to identify key policy barriers for reintroducing cultural burning, including (but not limited to) jurisdiction, liability, and land governance |

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| Reduce wildfire science and management gate-keeping by opening up prescribed fire training and accreditation outside of wildfire management agencies. Build capacity and support for Indigenous-led fire practitioner accreditation through programs such as Prescribed Burn Associations (PBAs) and Prescribed Fire Training Exchanges (e.g., TREX), as used in other countries. |
| |
| **RESEARCH GAPS** |
| Improve collection of climate data for the north. |
| Document the ecocultural use of fire by First Nations in the Boreal region |
| Develop better accounting models for estimating the total cost of wildland |

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# WILDLAND FIRE IN NAN TERRITORY

## INTRODUCTION

In March 2024 and 2025, NAN held Wildland Fire Gatherings to better understand the complex issues facing NAN First Nations communities around wildland fire management. Wildland fire is a growing concern in the face of climate change impacts across Canada, with many NAN First Nations on the front lines of wildland fire impacts in Ontario. The objectives of the Gatherings were as follows:

- *To highlight community perspectives and voices in the face of wildland fire experiences.*
- *To identify ways to integrate local traditional knowledge into fire management planning and response.*
- *To increase community capacity and employment in wildland fire fighting.*
- *To include youth and elders in the development of wildland fire best practices.*
- *To improve emergency response capacity and procedures.*
- *To mitigate and minimize the impacts of evacuations on NAN communities and families.*
- *To improve interagency and inter-community communications and collaboration on wildland fire response.*
- *To secure consistent funding and support for community wildland fire initiatives.*

Agendas and topics for the 2024 and 2025 Gatherings can be found in Appendices A and B.

## MESSAGES FROM THE ELDERS AND GRAND CHIEF

### OPENING REMARKS AND PRAYER, ELDER BARNEY BATISTE

*Good morning, my friends. I've been thinking a lot about how to begin today, because what we're gathering to talk about—it's important. We've come through hard times together, like the pandemic, and we did it by leaning on one another, by working together. And now, as we look ahead to this summer, with all the signs and warnings about what might come, I say again: this is the time to stand together and be courageously innovative. Just like before, we need to prepare ourselves.*

*As we move forward in this circle, I ask the Creator to guide our thoughts and our words. To give us strength to speak up, to share openly, and to build something strong—something that will hold all of us. Like my dad used to say when we lived in the bush, "Whatever you build, build it right." If that tent wasn't built right, the whole family would suffer. And now, I say, look at Treaty 9 as our big tent. If we don't get this right, we all feel the consequences—people, animals, the land. So let's each bring our piece of the puzzle. Let's speak in a good way, make good decisions, and*

*create a future that holds peace, justice, and balance. Miigwetch for letting me share. Let's get to work—together.*

GRAND CHIEF ALVIN FIDDLER

*Thank you all for coming together today. I want to start by recognizing the leadership—some of whom are with us here—who've been reaching out over the past couple of months, asking us to create a space like this. A space to prepare, to talk seriously about the real and growing threats facing our communities—wildfires, flooding, and the evacuations that may follow. This gathering isn't just about our communities, it's also about the partnerships we need—with governments and organizations—so we can act together, effectively. We've seen some good work happening already, from our tribal councils to national forums, but our leaders still have questions. We need clear answers—on host community capacity, on evacuation logistics, on how we support our families, our children, our Elders—if and when disaster strikes.*

*The climate is shifting. Fires are burning underground through the winter. Snowfall patterns are changing. And with major infrastructure like the Watay Power project running through our lands, we have to think long-term about safety and risk. I trust the people in this room. As Elder Barney reminds us, if we don't build this system right, our people will suffer. So let's bring all our resources, mandates, and partnerships to the table, and make something strong—together. Because by the end of this gathering, I need to know: what's the plan? And if there are gaps, it's my job to make sure they get filled. Miigwetch.*

# WILDLAND FIRE IN NAN TERRITORY

## THE GEOGRAPHY OF WILDLAND FIRE

NAN communities are located within what is known as the 'Boreal Shield Ecozone' (BSE), which is the largest ecozone in Canada. It extends as a broad inverted arch from northern Saskatchewan east to Newfoundland, passing north and east of Lake Winnipeg and north of the Great Lakes and the St. Lawrence River. In Canada, trend analyses for the years 1985 to 2015 show that Boreal forest types contained 98% of the total area burned by wildland fire, with the conifer-dominated Boreal Shield containing one-third of all burned area.[1]

The BSE is comprised of smaller defined areas called 'ecoregions'. Ecoregions are defined areas that have a characteristic range and pattern in climatic variables, including temperature, precipitation, and humidity. The climate within an ecoregion has a profound influence on the vegetation types, substrate formation, and other ecosystem processes, including wildland fire. This is important for understanding wildland fire probability and impacts on NAN communities, as well as appropriate mitigation approaches within the region.

Fire risk mapping for Canada suggests that many NAN communities are located within high fire risk areas in Ontario, in terms of both 'burn probability', 'intensity' and overall 'wildland fire hazard' (Figure 1). The highest burn probability values (>1) are mostly distributed across central Yukon Territory, northern Alberta, northern Saskatchewan, northern Manitoba, Northwest Territories (maximum BP values), western Ontario, and northwestern Quebec.

[1] Coops NC, Hermosilla T, Wulder MA, White JC, Bolton DK (2018) A thirty year, fine-scale, characterization of area burned in Canadian forests shows evidence of regionally increasing trends in the last decade. PLOS ONE 13(5): e0197218. https://doi.org/10.1371/journal.pone.0197218

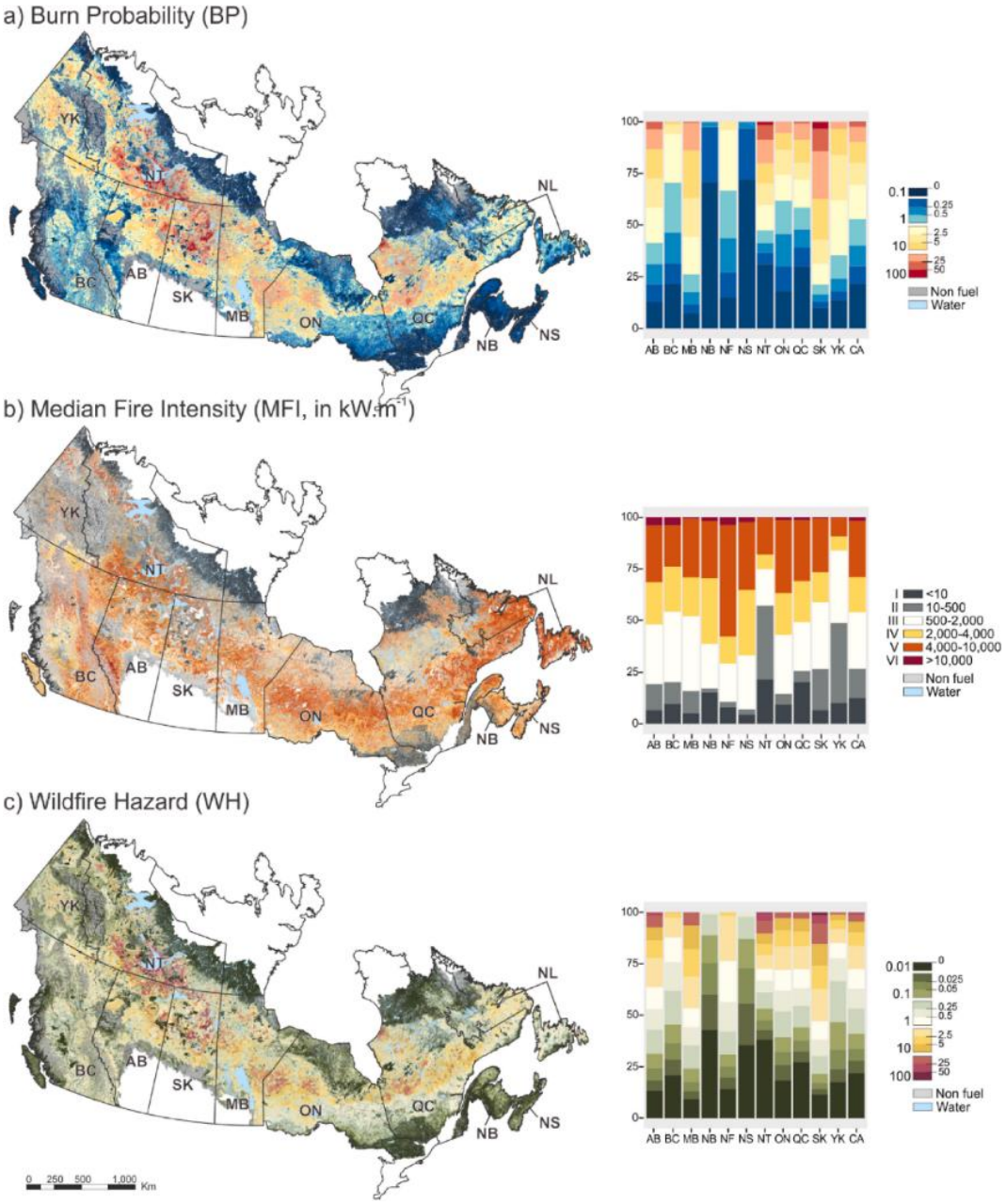


**FIGURE 1. OUTPUT MAPS OF BURN PROBABILITY AND MEDIAN FIRE INTENSITY, AND THEIR COMBINATION AS FIRE HAZARD. A VALUE BETWEEN TWO CLASSES IS PART THE HIGHER CLASS (FOR EXAMPLE, A MFI OF 500 IS PART OF CLASS III, 500–2000). ON THE RIGHT, BAR CHARTS REPRESENTING THE AREA COVERED BY EACH CATEGORY WERE SUMMARIZED BY PROVINCE/TERRITORY. ABBREVIATIONS OF PROVINCES AND TERRITORIES: AB ALBERTA, BC BRITISH COLUMBIA, MB MANITOBA, NB NEW BRUNSWICK, NF NEWFOUNDLAND AND LABRADOR, NS NOVA SCOTIA, NT NORTHWEST TERRITORIES, ON ONTARIO, QC QUEBEC, SK SASKATCHEWAN, YT YUKON TERRITORY (SOURCE: ERNI ET AL., 2024)[2]**

[2] Sandy Erni, Xianli Wang, Tom Swystun, Stephen W. Taylor, Marc-André Parisien, François-Nicolas Robinne, Brian Eddy, Jackie Oliver, Brad Armitage, Mike D. Flannigan, Mapping wildland fire hazard, vulnerability, and risk to Canadian communities, International Journal of Disaster Risk Reduction, Volume 101, 2024. https://doi.org/10.1016/j.ijdrr.2023.104221.

## Climate Change and Wildland Fire Behaviour

The average temperature in Canada rose by 1.7 degrees Celsius between 1948 and 2016.[3] The warming effect is expected to be higher during winters than in other seasons and more substantial at higher latitudes.[4] Many NAN communities are on the front lines of wildland fire changes and threats within Ontario. Changing weather patterns, hotter summers, and prolonged dry periods are increasing wildland fire risks.

Changes in winter temperatures also affect the ability of First Nations to prepare for fire seasons by reducing the operational timeframe and overall integrity of winter roads and putting the transport of essential supplies to remote northern communities in jeopardy. In an assessment of winter road networks for Ontario, 23% were classified as extremely vulnerable presently (2024), 41% were classified as vulnerable in the near future (2030-40), and 36% were considered resilient in the long term.[5]

> "A lot of people have noticed the changing weather patterns and also the early fire start. The weather has been so different for the last 20 years. The snow melts just like that."
>
> ***Community participant, NAN 2025 Wildland Fire Gathering***

About 2.5 million hectares of forest area burns across Canada in a typical year. In 2023, 15 million hectares of forest area burned across Canada – an area roughly the size of the island of Newfoundland. When wildland fire disasters occur, the impacts can be significant. The total cost of wildland fire disasters is considerably higher when suppression costs, evacuation costs, recovery costs, lost revenue, and other impacts (e.g. air and water quality) are also accounted for in cost estimates.

Over the last several decades the frequency of large wildland fires in Canada has increased. Lightning, human activity and unknown causes account for 47%, 49%, and 4% respectively of all wildland fires (1990–2016).[6] The number of wildland fires in Canada is expected to increase by about 15% by 2030, 30% by 2050 and 50% by 2100 with the changing climate (UNEP, 2022).

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[3] https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/trends-projections/changes-temperature.html

[4] https://www.davey.com/media/3qaex23l/ca-ontario-projections-623.pdf

[55] Winter Road Climate Vulnerability Assessment Framework. 2020-2024 Research Summary. Indigenous Services Canada. https://nrc-publications.canada.ca/eng/view/ft/?id=811fed70-eb56-4f3b-b795-201695feb6ae&dsl=en

[6] Cordy Tymstra, Brian J. Stocks, Xinli Cai, Mike D. Flannigan, Wildland fire management in Canada: Review, challenges and opportunities, Progress in Disaster Science, Volume 5, 2020, 100045, ISSN 2590-0617, https://doi.org/10.1016/j.pdisas.2019.100045.

The projected impacts of climate change include longer wildland fire seasons, increasing fire weather severity, increasing wildland fire occurrence, and increasing fire intensity and area burned. The economic cost of fire to society is also significant and rising if current fire trends continue. Assistance funds average about CA$340 million per year in Canada, with CA$1.7 billion paid by the federal Disaster Financial Assistance Arrangements Program between 2016-2017 and 2020-21.[7]

Agencies in Canada are quite successful at fighting wildland fires; only 4% exceed 200 ha in size. However, these wildland fires are responsible for about 99% of the total area burned during the 1990–2016 period. Projected increases in area burned suggest that the current protocols for wildland fire management in Canada will be inadequate in a future landscape with increased wildland fire activity.

**Government Resources – Climate Change and Wildland Fire**

**NRCan Wildland Fire Resilient Futures Initiative** (WRFI)- Starting in 2023-24, Natural Resources Canada will implement programs and activities up to $285 million over 5 years under the WRFI. This initiative is designed to mobilize and bring together all orders of government, Indigenous peoples, public and private sectors, academia and individuals to participate and coordinate efforts to effectively live safely within wildland fire prone areas.

**NRCan's Climate Change Adaptation Program** (2022-2027) – provides funding to position Canada's regions and sectors to adapt to a changing climate.

**NRCan Winter Road Climate Risk and Vulnerability Research** – Describes the specific vulnerabilities of Ontario's winter road network.

After the deadly 2009 "Black Saturday" bushfires in Australia, the need for transformative adaption in wildland fire risk management to be better prepared was identified. Transformational change is also required in Canada. Currently, there have been few regional assessments completed to fully understand the impacts of wildland fire on NAN communities the infrastructure they rely on and the long-term impacts of social, cultural and economic well-being. There has been no systematic or coordinated approach that would support an understanding of the specific risks and vulnerabilities faced by NAN communities by wildland fire or other natural hazards under future climate change scenarios.

[7]Public Safety Canada. 2018. Disaster Financial Assistance Arrangements. https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rcvr-dsstrs/dsstr-fnncl-ssstnc-rrngmnts/index-en.aspx

**Recommendations – Climate Change**

1. **Complete regional, integrated climate vulnerability/wildland fire risk assessments to better understand the specific risks and influence of geography, land use history on people, NAN communities and infrastructure vulnerability.**

## Disproportionate Impacts of Wildland Fire on Indigenous Communities

Indigenous communities are disproportionately affected by natural hazards including wildland fire[8], often at the interface of urban settlements and forests with up to 60% of Indigenous communities in Canada located in remote and forested areas.[9] Statistics tell the story:

- 18.9% of people living in reserves reside in areas at higher risk of fire, compared to 2.5% for the non-reserve population.
- On-reserve populations represent only 2.4% of the overall population, but 15.9% of people living in areas of 'high' fire risk levels, and 37.2% in areas of 'very high' fire risk.
- Indigenous Peoples are 30% more likely to be displaced by, and suffer from, the unintended outcomes of wildland fires.[10]
- First Nations, Métis, and Inuit Peoples comprise approximately 5% of the population of Canada, but 33% of wildland fire evacuation events. [11]
- 83% of smoke evacuees in Canada were from Indigenous communities.[12]

[8] First Nations Fire Protection Strategy, 2023 to 2028. Government of Canada.
[9] McGee TK, Nation MO, and Christianson AC. 2019. Residents' wildland fire evacuation actions in Mishkeegogamang Ojibway Nation, Ontario, Canada. International Journal of Disaster Risk Reduction, 33: 266–274.
[10] McGee TK. 2021. Evacuating First Nations during wildland fires in Canada. Fire Safety Journal, Fire Safety Science: Proceedings of the 13th International Symposium, 120: 103120.
[11] Beverly, J.L.; Bothwell, P. 2011. Wildland fire evacuations in Canada 1980-2007. Natural Hazards 59(1):571-596. https://cfs.nrcan.gc.ca/publications?id=32886
[12] Ibid.

On-reserve populations are more affected by wildland fire impacts because of their strong connection and socio-cultural reliance on their traditional territories. Over the last 13 years, First Nations communities experienced more than 1,300 emergencies leading to more than 580 evacuations affecting more than 130,000 people. Between 2009-2022, 90 of these evacuations lasted longer than 3 months.[13]

ECONOMIC IMPACTS

Economic impacts of fire can include loss of livelihoods; where fires disrupt forestry, hunting, and trapping activities that are critical sources of income for many First Nations. There are also increased costs to communities related to evacuations, repairs to damaged infrastructure, and reliance on outside resources leading to financial strain. Higher risks from wildland fires may increase insurance costs or make coverage inaccessible for community infrastructure.

Communities and individuals affected by wildland fire can experience considerable delays in reimbursement for the costs of their evacuation, sometimes more than a year, which can compromise funds for essential needs such as food, shelter, and medical care. A reactive response is less cost effective than prevention - Indigenous Services Canada spent 3.5 times more on responding to emergencies than on supporting First Nations communities to prepare for them.[14]

[13] 2022 Reports 5 to 8 of the Auditor General of Canada to the Parliament of Canada – Emergency Management in First Nation Communities. Office of the Auditor General of Canada. https://www.oag-bvg.gc.ca/internet/English/parl_oag_202211_08_e_44154.html

[14] 2022 Reports 5 to 8 of the Auditor General of Canada to the Parliament of Canada – Emergency Management in First Nation Communities. Office of the Auditor General of Canada. https://www.oag-bvg.gc.ca/internet/English/parl_oag_202211_08_e_44154.html

**Defining 'value' through an Indigenous lens**

"Value is a bit of a contentious word in firefighting. When I'm working with Fire Rangers or speaking about public safety or what's going on with a burn they're generally focused on values protection, infrastructure, things that cost money to replace.

I have a story, it's not my story, that somebody who came back from a fire, who shared this story, was saying how the fire was starting to pass through our community, recognizing the road that it was going to take, what was threatened, what wasn't. But not much consideration was given to things like trout cabins or things that might not be on the map or the natural processes of the event, you know, and the importance of trees and your tribal roads. All this can change after a burn."

***Community wildland firefighter, 2025 NAN Wildland Fire Gathering***

### Socioecological Impacts

Wildland fires can devastate hunting, fishing, and trapping areas, reducing access to traditional food sources. They may change boreal forest composition, replacing conifer-dominated forests with hardwoods or grasslands, which impacts wildlife populations and biodiversity. Fires can destroy culturally significant landscapes, burial sites, and historical artifacts and disrupt traditional land use practices. Under climate change scenarios, the pace and scale of change may outstrip the ability of traditional ecological knowledge to adapt, challenging its transfer to younger generations.

"A lot of times we talk about the financial cost, you know, we try to figure out how much this is going to cost us to fix this or to build a system that will support the community. And a lot of times we fail to talk about the human cost."

***Community participant, 2025 NAN Wildland Fire Gathering***

### Health Impacts

Drinking water quality can be impaired by runoff from burned areas. Smoke from wildland fires contains harmful pollutants and particulates black carbon (soot), volatile organic compounds, carbon monoxide and polycyclic aromatic hydrocarbons. Smoke can travel over hundreds or thousands of kilometres and secondary air pollutants (for example, fine particulate matter and ozone) are formed during long-range transport. These air pollutants can exacerbate respiratory illnesses, particularly in vulnerable populations such as children and elders, and those with pre-existing health conditions (e.g., asthma, heart disease).

There are many adverse health effects associated with exposure to wildland fire smoke including: short-term respiratory irritation, for example coughing, asthma events, increased mortality risk, for example from heart disease, and risks of diverse array other health effects may also be increased.

Repeated evacuations and ongoing threats of fire contribute to psychological stress and trauma. First responders who help communities cope with fire and natural disaster can also experience high levels of mental stress. Signs of trauma can include:

- Replaying and re-experiencing a traumatic event or story
- Anxiety
- Emotional withdrawal
- Depression
- Feelings of guilt
- Avoidance
- Altered interpersonal skills
- Questioning spirituality
- Excessive responses (i.e., impulsive shopping)
- Increased substance use

The provincial and federal governments have programs to help mitigate the impacts of evacuations on First Nations communities. However, communities in northern Ontario face numerous barriers to effective access, many of which are rooted in systemic issues. Jurisdictional confusion between federal, provincial, and Indigenous governments often leads to unclear roles and delayed responses. Capacity gaps, such as a lack of local training opportunities and firefighting resources in communities, further constrain participation. Indigenous knowledge systems, including cultural burning, are frequently marginalized or excluded from formal fire management strategies.

Additionally, communities face social and health vulnerabilities—such as repeated evacuations, underlying health issues, and trauma—that heightens vulnerability. Poor infrastructure and limited inclusion in planning and decision-making processes further hinder the ability of First Nations to manage fire risks on their own terms and in alignment with traditional land stewardship practices.

If the physical and mental health impacts of wildland fire and repeated evacuations are not adequately addressed in Ontario's boreal First Nations, the consequences will be both immediate and long-lasting. Physically, exposure to wildfire smoke increases the risk of respiratory and cardiovascular illnesses, particularly in vulnerable populations such as Elders, children, and those with pre-existing health conditions. Repeated displacements disrupt continuity of care, strains

already limited health, social, and other wraparound support resources, as well as adding the potential to worsen chronic illnesses due to interrupted treatment or medication access and increased stress.

Without targeted, community-led interventions that prioritize holistic wellness and cultural grounding, the cycle of harm will continue to undermine individual health, family stability, and community resilience in the face of climate-driven fire threats.

## FUNDING

A 2022 Auditor General's Report included the following key findings about funding and emergency support for First Nations:

- Indigenous Services Canada did not provide the support First Nations communities needed to manage emergencies such as floods and wildland fires, which are happening more often and with greater intensity.
- The department's actions were more reactive than preventative, despite First Nations communities identifying many infrastructure projects to mitigate the impact of emergencies. The department had a backlog of 112 of these infrastructure projects that it had determined were eligible but that it had not funded.
- Since the last report in 2013, Indigenous Services Canada still had not identified which First Nations communities were the least likely to be able to manage emergencies.

A 2024 study involving Treaty 5 and 9 communities found that capacity limitations—both human and material—are consistent challenges across all institutions. Funding for capacity building often prioritizes training but neglects other critical aspects, such as institutional infrastructure, stable funding streams, and equipment. Indigenous communities have increasingly stepped up to build local capacity themselves, but this raises new operational questions and strains. Many available funding sources remain overly bureaucratic, rigidly targeted, and disconnected from on-the-ground needs.[15]

In August 2024, Ontario and Canada announced that they will be investing a joint $64 million over the next four years to improve and modernize wildland fire management in Ontario. One of the express goals of this investment is to build upon current capacity to support Indigenous wildland fire management and community resilience, which they hope to achieve through the procurement of vital firefighting equipment such as fire trucks, fuel systems, and weather

[15] Wildland fire management in Ontario: Scan of the institutional landscape for supporting First Nation communities. 2024. Centre for Northern Forest Ecosystem Research. Information Report IR-33 Science and Research Branch Ministry of Natural Resources and Forestry. https://www.publicdocs.mnr.gov.on.ca/srb/Pubs/IR-33.pdf

stations. This, in addition to more training, hiring more personnel, and improving resource-sharing across Canada, is being done to address increasingly severe wildland fire seasons.

**Recommendations – Funding**

1. **Collaborate with private contractors/experts to prepare ISC proposals and advocate to higher authorities for support.**
2. **Advocate for funding mechanisms that prioritize underserved communities.**
3. **Develop programs that fund the practical and local on-the-ground challenges of wildland fire management at the community level.**
4. **Harmonize provincial and federal funding programs through a one-window approach to reduce the administrative burden of individual First Nations and tribal councils at all stages of wildland fire management, from prevention through recovery. Funding structures must shift to support full-spectrum capacity development, including infrastructure, equipment, and organizational support.**

# WILDLAND FIRE MANAGEMENT IN CANADA

# Wildland Fire Management

## Background

Ontario provides emergency management support for First Nation communities to prepare for, respond to, and recover from an emergency. In collaboration and coordination with First Nation communities, the federal government, provincial ministries and other communities, multiple programs and strategies have been developed to engage and assist First Nations communities and organizations in emergency management plans and programs, as well as prepare for emergencies in First Nations communities.

The province works to formalize agreements with First Nations and other local groups to establish community-led fire management programs, including agreements on fire response and training. One such agreement is the Provincial Emergency Response Plan (PERP) which focuses on coordinating emergency response assistance from the provincial government to First Nations communities when emergencies, including wildland fires, occur (Government of Ontario).

For the threat of wildland fire specifically, the Ontario Ministry of Natural Resources (MNR) engages in collaborative fire agreements with First Nations and other municipalities to manage forest fires. On a smaller scale, some First Nations may enter into Municipal-Type Service Agreements (MTSAs) with neighboring municipalities to gain better access to fire protection services, in addition to other public health and safety resources (Federation of Canadian Municipalities).

Effective response to wildland fires requires strong inter-agency coordination. At the Gathering, organizations including provincial agencies, and local leaders, emphasized the importance of coordinating and strengthening partnerships and clarifying evolving roles of Indigenous and government wildland fire management agencies.

## Canada

### *First Nations Fire Protection Strategy (2023-2028)*

The province has the main responsibility for wildland fire management in Ontario. However, the provinces collaborate with the federal government in many areas, including research, technology mobilization, wildland fire fighting and monitoring and adapting the national response. Canada has recognized the increasing threat of wildland fire to Indigenous communities and the federal response includes an updated First Nations Fire Protection Strategy (2023-2028), the Wildland Fire Resilient Futures Initiative, partnerships with provinces and other countries for wildland fire fighting services and new or continued streams of funding that are available to help communities plan, prepare and adapt to wildland fire under climate change.

The 2023 to 2028 Strategy builds upon previous strategies and expands upon them in three ways:

- It addresses increased fire safety threats from climate change
- It emphasizes the need to renew and improve fire safety infrastructure and introduce modern technology
- It considers how to enhance fire safety for First Nations living both on and off reserves

*The NRCan Wildfire Resilient Futures Initiative (WRFI)*

The WRFI is investing $48 million over 4 years to support collaborative mission-oriented research projects, demonstration sites, and mobilize Indigenous fire knowledge. Another $11.75 million will be invested over 5 years to establish a national Centre of Excellence with a focus on accelerating the uptake of innovations in technology, enhancing knowledge mobilization, and supporting Indigenous fire science and cultural use of fire.

*Fire Protection on Reserves*[16]

Fire protection is an essential service that can mean the difference between life and death. Fire protection services include:

- firefighting
- operating and maintaining fire halls
- purchasing fire trucks, firefighting tools and equipment
- training and educating firefighters and community members

First Nations band councils manage fire protection services on reserves. ISC provides annual funding to First Nations that can be used for fire protection services as well as fire insurance. First Nations band councils can use these funds to run their own fire departments or to contract fire protection services from nearby communities. Some First Nations may choose to use fire protection funding on other priorities.

*Wildland Fire Suppression agreements*

There are several types of suppression agreements that may apply to First Nations, depending on their location and circumstances. These include:

1. Municipal Agreements
2. First Nation Agreements
3. Northern Fire Protection Program Agreements -
4. Out of Fire Region Policy FM: 2:04

[16] Fire protection in First Nations communities. Government of Canada. https://www.sac-isc.gc.ca/eng/1317842518699/1535120096924#chp3

5. Federal Agreements

For fires on First Nation (FN) lands located "Inside the Fire Region" (IFR)[17], the MNR is contracted by Indigenous Services Canada to provide fire response. Under First Nation agreements, communities are subject to Terms and Conditions they have to meet in order to get reimbursed for their fire management activities.

**Government Resources - Canada**

**ISC First Nations Fire Protection Strategy 2023-2028** - The Joint First Nations Fire Protection Strategy was first established in 2010 in collaboration with Indigenous and Northern Affairs Canada and the Aboriginal Firefighters Association of Canada (AFAC) to promote fire protection on reserve. In 2022, AFAC became the National Indigenous Fire Safety Council (NIFSC). This newest iteration of the strategy, 2023 to 2028, was co-developed by the Assembly of First Nations (AFN) and Indigenous Services Canada (ISC). It builds upon the previous strategy while adding some additional priorities to align with modern fire safety challenges facing First Nations today.

**Emergency Management Canada** - Indigenous Services Canada (ISC) partners with First Nations communities to prevent, prepare for, respond to and recover from emergencies. The website outlines several funding programs to support First Nations with wildland fire resilience.

**Wildfire Resilient Futures Initiative** - Under the Wildfire Resilient Futures Initiative (WRFI), Natural Resources Canada will implement programs and activities up to $285 million over 5 years, starting in 2023-24. WRFI invests in new programs and activities to reduce wildland fire risk in our communities and landscapes and is delivered through 3 interrelated activities. WRFI is an initiative within the Government of Canada Adaptation Action Plan, in support of the National Adaptation Strategy, launched on June 27, 2023.

[17] The IFR area is defined by the province's forest fire management strategy and dictates the responsibilities for fire suppression. Municipalities within the IFR are responsible for suppressing grass, brush, and forest fires within their boundaries. The Ministry of Natural Resources (MNR) may also enter into agreements with municipalities to ensure effective fire management.

## Ontario

Ontario defines five components of emergency management - prevention, mitigation, preparedness, response and recovery (Figure 2). The components of each as they apply to wildfire preparation and response are discussed in more detail in the following sections.

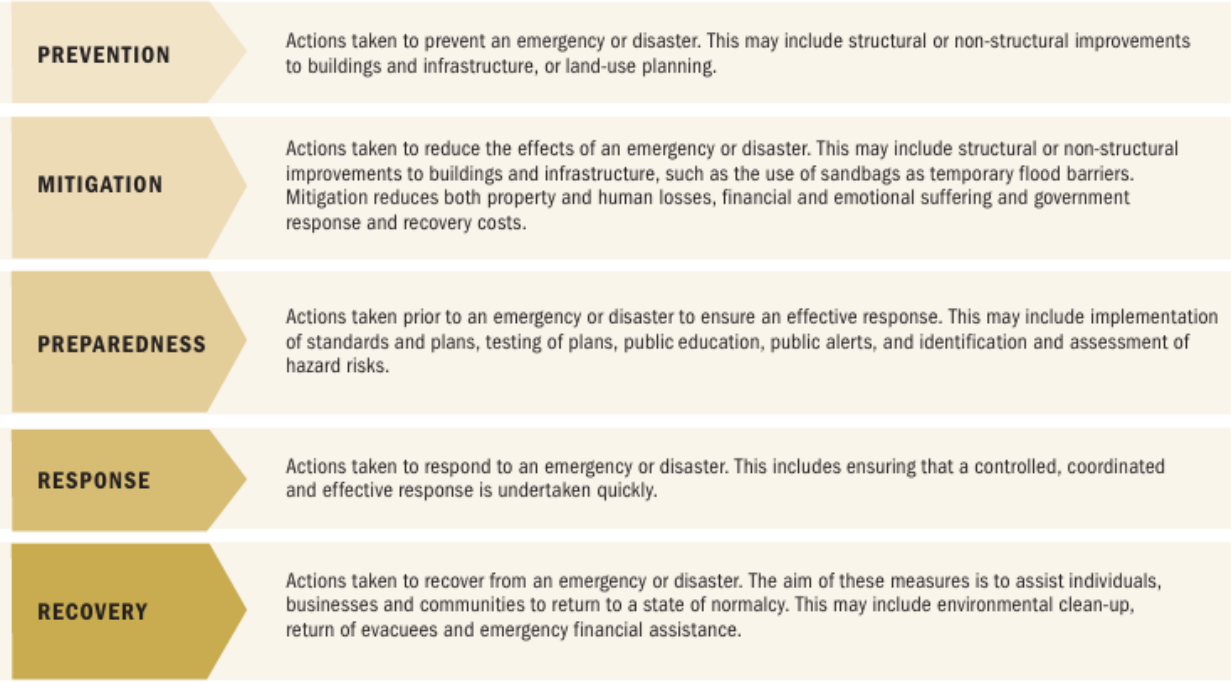


**FIGURE 2. FIVE COMPONENTS OF EMERGENCY MANAGEMENT IN ONTARIO (SOURCE OF DATA: MINISTRY OF THE SOLICITOR GENERAL)**

### Wildland Fire Prevention and Mitigation Through FireSmart Practices

The Gathering included a presentation on how to prevent and mitigate the effects and risk of wildland fire through FireSmart practices. Communities are encouraged to adopt vegetation management and ember-proofing strategies as preventive measures. Ontario's approach includes forest management practices that aim to reduce the risk of wildland fire through thinning, controlled burns, and vegetation management in high-risk areas. These practices aim to minimize fuel loads and create fire breaks that can prevent the spread of wildland fires. However, barriers to these mitigation activities include a lack of capacity for all communities to: a) develop Community Wildland Fire Protection Plans/FireSmart plans and b) implement them in practice. Spending on prevention continues to be much lower than spending on response (Figure 3).

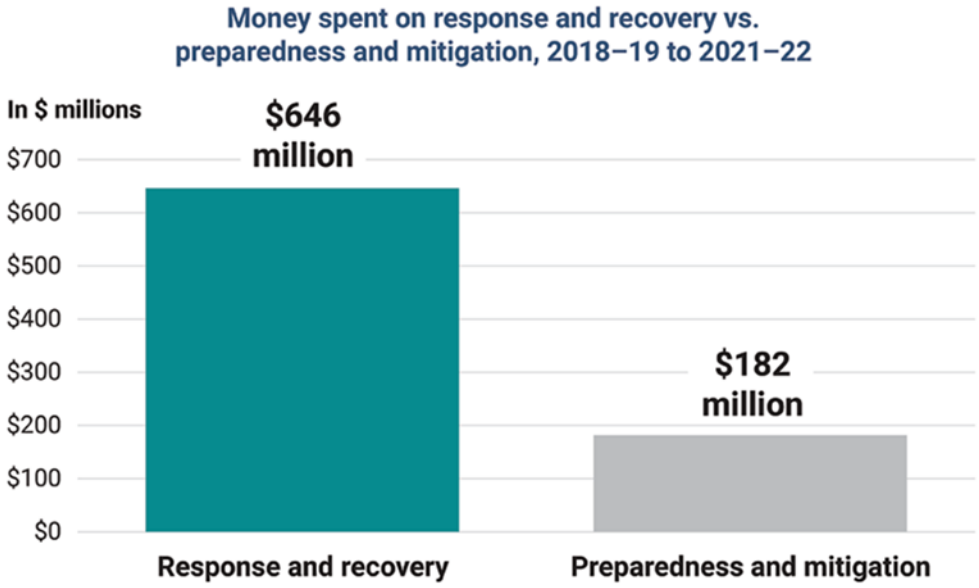


Figure 3. ISC spending on response and recovery vs. preparedness and mitigation, 2018-2022 (Auditor General of Canada, 2022).

Furthermore, while there are funding programs available in Ontario and across Canada for planning and implementing FireSmart programs, examples are relatively rare or remain undocumented in the public realm. A 2022 Ontario Auditor General's Report noted that "*over the three fiscal years (2019/20–2021/22), the Ministry spent less than half of the $1 million it budgeted for the FireSmart program. One component of the FireSmart strategy is to create Wildfire Protection Plans. These plans are intended to help communities assess their wildfire risk and make recommendations to lessen the threat and impact from forest fires. As of August 2022, only 15 out of 144 municipalities in Northern Ontario had a Wildfire Protection Plan in place. The Ministry did not know how many communities required a plan, but we noted 63% of districts with a rating of extreme or very high risk of fire had no communities with Wildfire Protection Plans. Funding was not targeted to those districts assessed as having an extreme or high risk of fire. In addition,* ***no funding was allocated to unorganized communities (geographic areas without a local municipal organization), including those in high-risk districts.***"[18]

Starting in 2023-24, Natural Resources Canada will implement programs and activities up to $285 million over 5 years under the Wildfire Resilient Futures Initiative (WRFI). This initiative is

[18] Value-for-Money Audit: Management of Hazards and Emergencies in the Environment. 2022. Office of the Auditor General of Ontario. Retrieved from: https://www.auditor.on.ca/en/content/annualreports/arreports/en22/AR_EmergencyMgmt_en22.pdf

designed to mobilize and bring together all orders of government, Indigenous peoples, public and private sectors, academia and individuals to participate and coordinate efforts to effectively live safely within wildland fire prone areas. The WRFI is being delivered through 3 interrelated activities, including a funding stream for building 'Resilient communities through FireSmart'.

FireSmart project funding is available for initiatives, such as:

- wildland fire pre-suppression planning
- wildland fire risk assessments
- fuel reduction, forest thinning, prescribed burning
- fire breaks
- wildland fire crew training
- vegetation management
- fire mapping
- FireSmart training, workshops, conferences
- community and youth engagement

Access to FireSmart funding for Ontario First Nations is mainly through Indigenous Services Canada, Emergency Management Assistance Program (EMAP).

**Government Resources – Prevention and Mitigation**

**Emergency Management FireSmart program** - EMAP supports wildland fire non-structural mitigation and preparedness initiatives through the FireSmart funding stream. FireSmart builds skills in First Nations communities to prevent and prepare against wildland fires. Programming involves training First Nations teams in wildland fire suppression duties, as well as fuel management and vegetation clearing, which reduces the intensity and spread of wildland fires. FireSmart also leverages Indigenous knowledge of the local environment and terrain to improve emergency planning, preparation, and response to wildland fires.

**First Nation Adapt Program** - The First Nation Adapt (FNA) program provides support to First Nation communities and organizations located south of the 60th parallel to assess and respond to the impacts of climate change, and increase climate resilience, in support of self-determined priorities. The program accepts project proposals year-round.

**Ontario FireSmart Communities Grant** - Available by application through the Transfer Payment Ontario Program.

There is little information to document the extent of activities that have been implemented in communities across the province, or their effectiveness. Existing policies and procedures pose practical barriers to Indigenous engagement in fire management. Restrictions on information

sharing (e.g., social media limitations for government staff), overly complex certification systems, and cumbersome regulations on prescribed or cultural burns all hinder timely and culturally appropriate responses. The provincial template for prescribed burns, for instance, is described as too onerous for successful implementation of community-led cultural burns that could be used as a prevention or mitigation measure.

**Recommendations – FireSmart**

1. **Based on wildland fire risk assessment, high risk First Nations should implement FireSmart programs by 2026. Moderate risk First Nations should complete a FireSmart strategy by 2027.**
2. **Both Ontario and Canada should track and report on the development of community Wildland Fire Protection Plans as well as the funding and implementation of FireSmart activities by Indigenous communities.**
3. **Develop provincial monitoring protocols as a part of emergency recovery to assess the effectiveness of implementing recommended FireSmart activities at a community level.**

## Wildland Fire Preparedness

### Planning

Ontario's Wildland Fire Management Strategy provides direction for how the ministry manages wildland fires across Ontario. The goals of the wildland fire management program are to:

- prevent loss of human life and injury
- prevent and mitigate losses including economic and social disruption
- promote understanding of the ecological role of fire
- use fire to benefit resource management

The current strategy uses an 'appropriate response' approach, which is a risk-based approach where each fire is assessed on its own merit and the response action is determined based on that assessment. This represents a move away from past zone-based responses, which were mostly suppression by default. Northern Ontario is divided into two fire regions (East and West) containing seven fire management areas each.

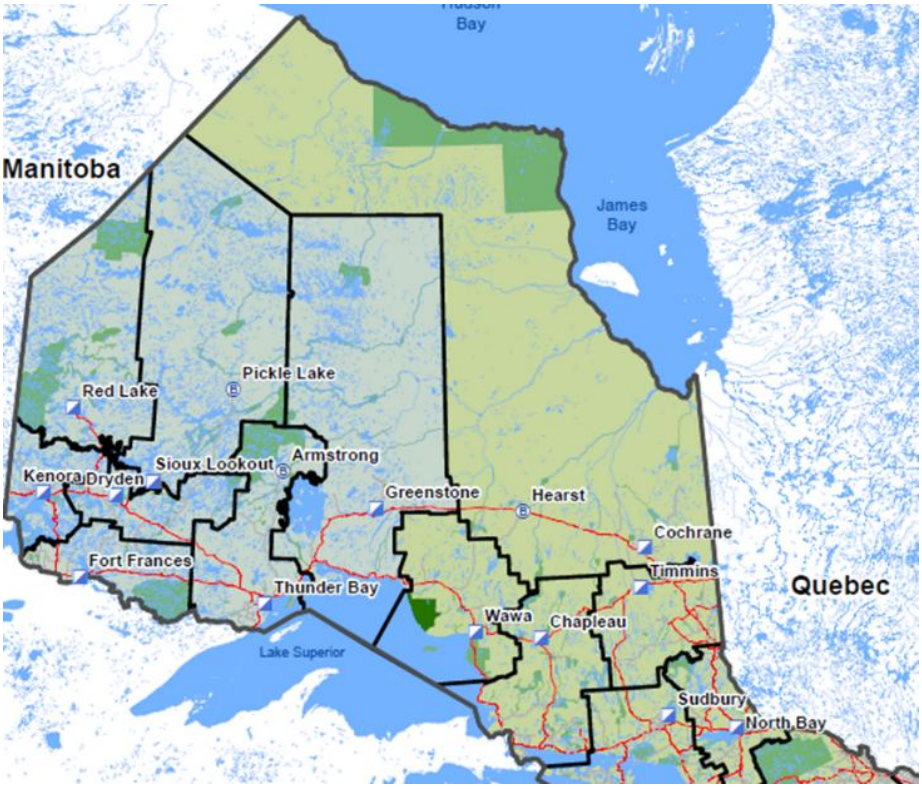


FIGURE 4. FIRE REGIONS AND FIRE MANAGEMENT AREAS IN NORTHERN ONTARIO.

Emergency Management Ontario (EMO) plays an important role in assisting Indigenous communities across the province with emergency planning by offering resources, encouraging partnership, and promoting culturally respectful approaches. EMO partners with Indigenous communities, federal agencies, and other provincial ministries to create and support emergency management plans and initiatives. It also works directly with First Nations to help coordinate emergency management efforts throughout Ontario. The Province of Ontario, through the Provincial Emergency Operations Centre (PEOC), provides emergency response assistance to First Nation communities through a bilateral agreement with the Government of Canada, as administered by Indigenous Services Canada (ISC). ISC is also responsible for assisting First Nation communities in developing and updating emergency plans at the regional and national level, as well as plans to mitigate the risk of emergencies.

**Government Resources – Preparedness**

Ontario **Wildland Fire Management Strategy (2014)**

**Modernizing Ontario's Wildland Fire Management** (no date) – a discussion paper that lays out a proposed new vision for wildland fire management: "*An Ontario that works together, through all sectors, to reduce the risks and minimize the unwanted impacts of wildland fires, creating safer and more resilient communities.*"

Emergency Management Ontario - Emergency Management Ontario works to keep people safe and secure by coordinating with other organizations to prepare for emergencies and respond to them, when they happen.

Despite the availability of resources, Gathering participants noted that emergency planning in NAN communities is still underdeveloped and can cause stress and economic hardship to communities affected by wildland fire events and evacuations.

**Recommendations – Wildland Fire Emergency Planning**

1. **Conduct tabletop exercises simulating wildland fire emergencies as well as annual emergency response drills to improve community readiness.**
2. **Develop communication tools to keep community members up to date on wildland fire risk, mitigation options and emergency response protocols.**

### Training and Equipment

Many communities lack resources such as firefighting equipment, trained personnel, and infrastructure for fire response. Communities need resources like firefighting equipment, training, and personnel to handle wildland fire threats effectively and be prepared for the annual wildland fire season. The Gathering highlighted several gaps in the ability of communities to be ready to respond to wildland fire emergencies.

#### *Firefighting Equipment*

Gathering participants and presenters discussed the importance of pre-season preparation to ensure that necessary firefighting tools and equipment are available in the community and in good working order. Part of this is ensuring the interoperability of equipment purchased, so that tools and machinery from different agencies can work together effectively. Presenters highlighted delays due to global wildland fire equipment demand and advised pre-purchasing critical parts.

The types of potential community equipment includes: fire hydrants, sprinklers, fire extinguishers, fire suppression equipment (pumps, hoses, backpacks, and handheld tools), Northern protection kits, rapid attack multi-use apparatus, first aid kits, Nomex clothing, wildland fire brush trucks, heavy-duty pumper/tank trailers, and high-end community value protection pumps, Quick Deploy FireBozz cannon sprinklers, I.A Fire Rescue boats, heavy-duty chippers, among other things. Funding streams for equipment are varied among federal departments,

including the Emergency Management Assistance Programs (EMAP)[19], the ISC First Nations Infrastructure Investment Plan[20] and others as determined by federal and provincial budgets.

Some of the concerns related to equipment raised included:

- A lack of appropriate firefighting vehicles and maintenance funds.
- Long wait times for parts and equipment, as well as repairs to current inventory.
- Lack of training in maintaining and using firefighting equipment.
- The high cost of bringing equipment in, getting more challenging as the winter road operability window closes due to climate change and the cost of air transport for equipment and personnel increases.

These issues exacerbate challenges in the wildland fire season. Participants and presenters both advocated for knowledge sharing rather than centralizing resources, allowing communities to become more self-sufficient through collaboration.

**Grassroots Innovation**
In the face of equipment shortages, communities are finding resourceful solutions, such as retrofitting trucks for firefighting or improvising unconventional tools (e.g., sewage trucks filled with water) showcasing ingenuity in crisis.

Many communities lack firefighting equipment, trained personnel, and the financial capacity to maintain readiness. Gathering participants noted that competition for limited funding leaves smaller/under-resourced communities at a disadvantage. Many communities have limited access to expertise and consultants for grant writing and project planning in a complex and fragmented funding system, which does not offer sustained funding for preparedness and recovery efforts. Disparities noted include ensuring equitable access to resources, particularly for remote and northern communities that are at high risk of wildland fire and under-resourced.

**Recommendations – Equipment**

1. **Increase access to equipment funding and operations training.**
2. **Develop support systems to ensure annual equipment inventory planning, maintenance, and equipment orders in advance of the fire season.**

[19]Low-value equipment purchases under EMAP. https://www.sac-isc.gc.ca/eng/1624302370418/1624302401778
[20] First Nations Infrastructure Investment Plan, ISC. https://www.sac-isc.gc.ca/eng/1440084290678/1533645718223

*TRAINING*

The province has been working to strengthen the role of community-based firefighting efforts, particularly in remote and northern areas. This includes training local firefighters and providing funding to support regional fire protection initiatives. Due to limited expertise in the field, high turnover, and the seasonal focus of the job, Ontario has been facing challenges in workforce availability. Workforce instability and expertise loss further exacerbates the province's capacity gaps in wildland fire management.[21]

> "In a perfect world, our crews would fight fire in the summertime, do wildfire mitigation stuff in the or training in the wintertime."
>
> ***Government participant, 2025 NAN Wildland Fire Gathering***

As of 2014, the AFFES transitioned from a uniform, zone-based fire management strategy, which often resulted in the undue and overzealous use of fire suppression techniques, to a risk-based, appropriate response strategy that allows them more flexibility in their response to individual wildland fires as they relate to public safety, infrastructure, and ecological objectives. This change in approach has succeeded in reducing the unnecessary expenditure of firefighting resources and promotes the strategic use of fire to support natural processes where appropriate.

The firefighting training programs available in Ontario were reviewed and further assessed for their suitability in meeting the capacity-building goals of First Nations communities. The SP100 offers basic firefighting training to regional and national standards, respectively, but the SP103 Willand Fire Fighting Training was promoted as an ideal alternative for individuals in First Nations communities as it is capable of more flexibility, due to lack of certification standard, for incorporation of cultural values and community-specific needs into fire response training.

Shortcomings in the accessibility of these training options were a key discussion point, and future developments, such as community-based training, AFFES instructors that specialize in First Nations training, and train-the-trainer programs, were proposed to minimize barriers to participation in the future.

A national study that took place in 2022 found that only 2.2% of firefighters across Canada are of Indigenous descent, making them a minority in the workforce. According to 'Blazing the Trail – Indigenous Fire Stewardship'… "*a change in emphasis on safety standards, fitness requirements, and crew structure and changes to firefighting practices in the 1990s reduced the number of Indigenous Peoples working for wildland fire agencies across Canada. For Indigenous firefighters*

[21] Base, S.C. A. 2023. Barriers which preclude the formation of strong, comprehensive wildland fire mitigation plans and strategies in Ontario: A knowledge gap analysis. [50] pp.

*that continued firefighting for wildland fire agencies, the tactics shifted to predominantly non-Indigenous fire suppression. Many Indigenous wildland firefighters are now employed on temporary or contract-based roles such as seasonal Type 2 firefighters. Given the long history and land-based lived experiences in fire stewardship along with the realities of wildland fire effects on Indigenous communities, there are not enough Indigenous firefighters in Canada currently employed in permanent and/or management positions. This is likely due to the requirement by wildland fire management agencies of post-secondary/technical education over lived "on the ground" fire experience."*

The Gathering identified a need for accessible and consistent training for community members in wildland fire management. Developing and standardizing a wildland fire suppression training curriculum for communities and delivering it in communities would reduce barriers for community members to participate in wildland fire fighting. Increasing the number of Type 2 Indigenous firefighters would help remove barriers to full participation in the province's wildland firefighting programs. However, the current Type II firefighter procurement system presents barriers for Indigenous start-ups seeking entry into the field.

**Recommendations - Training**

1. **Develop community-based training programs (SP 100 and SP 200) with AFFES instructors that specialize in First Nations training in communities, and train-the-trainer programs to minimize barriers to participation.**
2. **Improve retention by expanding the roles of Forest Fire Rangers to include off-season mitigation work - would require reclassification, increased pay, and institutional change, which pose significant barriers.**
3. **Work with MNR/AFFES to identify systemic barriers to employing qualified Indigenous fire crews.**
4. **Develop fire management training options tailored to specific community needs.**

### Wildland Fire Emergency Response

Jurisdictional complexities between federal, provincial, and Indigenous governments can lead to confusion over roles and responsibilities, potentially hindering effective fire management. Additionally, there may be gaps in funding and resources, affecting the implementation of fire protection services and training programs within First Nations communities. The integration of traditional Indigenous knowledge into contemporary fire management practices also remains an area requiring further development and mutual understanding.

#### *Fire Suppression*

Ontario's Aviation, Forest Fire and Emergency Services (AFFES) is responsible for the majority of the province's wildland fire suppression efforts, including air and ground resources. AFFES deploys aerial water bombers, helicopters, and ground crews to fight wildland fires, especially during the peak fire season (spring to fall).

Ontario has an established system of wildland fire suppression tools, including specialized equipment, water bombers, firefighting crews, and equipment that can be deployed to impacted areas. The province uses a combination of satellite technology, fire detection towers, and aerial patrols to monitor fire conditions and detect fires early. The severity of the fire season is closely monitored to allocate resources effectively.

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**Government Resources**

**CANADA:** Emergency Management Assistance Program (EMAP) - In partnership with First Nations communities, provincial and territorial governments and non-government organizations, Indigenous Services Canada's Emergency Management Assistance Program (EMAP) provides application based funding to help on reserve and other eligible First Nations communities access emergency supports and implement initiatives within all pillars of emergency management.

**ONTARIO:** Ontario Corps - Ontario Corps is a group of partners and people that the government can call to help communities hit hard by emergencies and natural disasters. Ontario Corps includes an enterprise-wide vendor of record for evacuation services, partnerships with NGOs and emergency organizations to augment community capacity, hubs and loaned emergency equipment, as well as a new public volunteer deployment program.

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#### *Coordination and Communication*

##### Coordination

Ontario promotes communication between various agencies, communities, and the public, particularly during high-risk fire seasons. Communications include regional fire briefings, daily updates for affected First Nations communities, and active coordination between the AFFES, municipal fire departments, and community leaders.

The Aviation, Forest Fire and Emergency Services (AFFES) is often a main point of government contact for First Nations—even on matters beyond its mandate, such as health concerns related to smoke or evacuation logistics. This highlights broader coordination gaps and blurred responsibilities across agencies. The emergence of new Indigenous organizations working in fire and emergency services has introduced both opportunity and confusion, with respondents describing "stepping on each other's toes" and overlapping mandates.[22]

### Communications

Gathering participation noted some gaps in their understanding of communications protocols in wildland fire season and related to emergency response. Regular pre-season briefings and direct lines of communication between community leaders and fire management officers were highlighted as priorities. Other issues included difficulty reaching individual communities during emergencies. Presenters and participants discussed the importance of Community Fire Officers in attending daily sector briefings and relaying actionable information to community leaders. Officers are expected to attend daily sector briefings and relay updates to local leaders, ensuring informed decision-making during emergencies.

In 2023, AFFES started Indigenous Partner Situational Briefings to provide updates on the overall current fire situation provincially, identify available information resources for continued awareness and provide a forum for discussion. The Indigenous Partner Situational Briefings were praised for enhancing awareness and decision-making during wildland fire events.

**Government Resources – Communications**

**Indigenous Partner Situational Briefings** (2023) - provide updates on the overall current fire situation provincially, identify available information resources for continued awareness and provide a forum for discussion.

**Interactive Fire Map:** Provides updates on active fires, fire danger ratings, and restricted zones.

**Social media:** Ontario Forest Fires (Facebook & Instagram) and others provide up-to-date information on fire situation across the province.

However, the Gathering findings suggest that there remains some confusion about protocols, roles and responsibilities as well as who to contact in case of wildland fire emergencies. It was

[22] Wildland fire management in Ontario: Scan of the institutional landscape for supporting First Nation communities. 2024. Centre for Northern Forest Ecosystem Research. Information Report IR-33 Science and Research Branch Ministry of Natural Resources and Forestry. https://www.publicdocs.mnr.gov.on.ca/srb/Pubs/IR-33.pdf

noted that effective communication between agencies often relies on individual relationships rather than institutional frameworks.

Indigenous organizations also face internal communication silos, often due to funding constraints and resource scarcity. In the absence of formal coordination structures, there is a limited awareness of fire conditions or activities between neighbouring tribal councils and communities. As the role of Indigenous organizations in wildland fire response expands, all parties are working through some growing pains to develop an integrated framework for the most effective fire response at the local and provincial level.

**Recommendations – Emergency Response and Communications**

1. **Continue to enhance knowledge and participation in Indigenous Partner Briefings and fostering direct contacts through Community Fire Officers.**
2. **Enhance government use of social media, local radio and direct emails for wildland fire updates.**
3. **Strengthened roles for Community Fire Officers to act as liaisons and inform local leadership of wildland fire risks and necessary actions.**
4. **Conduct tabletop exercises simulating wildfire emergencies as well as annual emergency response drills to improve community readiness.**

*Evacuation*

Ontario works with local municipalities and communities, especially remote and Indigenous communities, to develop and implement effective evacuation plans in the event of a wildland fire. This includes shelter-in-place strategies and coordination of transportation and emergency services.

Evacuation plans should be regularly updated and practiced ensuring that the community is prepared to evacuate. Proactive measures, such as establishing avenues of communication between local emergency contacts from Indigenous communities and provincial and/or territorial emergency management organizations, are also taken. This ensures that relevant information about evacuation procedures and social services available to evacuees are locally available. These plans also encompass re-entry strategies to facilitate the safe return of residents to their community.

When an evacuation is necessary, emergency alerts are communicated to residents on alert interfaces such as radio, television, phone, and social media broadcasts. During an active

evacuation, the government provides financial, administrative, and health services support to evacuees, and once the threat has passed, will also assist with the facilitation of re-entry.[23]

**Government Resources**

**Joint Emergency Management Steering Committee (JEMS) and the Service Level Evacuation Standard** - In support of individual First Nation emergency plans, the Office of the Fire Marshal and Emergency Management has, in consultation with ISC and First Nations in Ontario, compiled the Joint Emergency Management Steering Committee (JEMS) Service Level Evacuation Standards. Emergency Management Ontario and Indigenous Services Canada co-chair the committee. Members include First Nations communities and organizations, relevant federal departments, provincial ministries, and municipalities.

**Provincial Emergency Operations Centre** (PEOC) - When an emergency occurs or is imminent, it is the responsibility of the Chief of the First Nation community to decide whether, or not to make a declaration of emergency and if so to notify the PEOC by the most expeditious means available. This would typically be by calling the PEOC Duty Officer at 1-866-314-0472 ext. 2, and by delivering a signed copy of the declaration to the PEOC via fax (416) 314-0474 or email to peocdo01@ontario.ca.

### Wildland Fire Recovery

Indigenous communities often face significant barriers in the aftermath of wildland fire events. Gathering participants noted that one of the main challenges is the limited and delayed access to funding and recovery support, which is often funneled through complex federal and provincial systems that may not reflect community priorities. Housing shortages, lack of local infrastructure, supply chain constraints, and insufficient mental health services compound the difficulty of returning to normalcy.

Many communities are forced to rebuild with limited resources and without consistent government coordination or culturally relevant supports. In some cases, repeated evacuations and poor communication with outside agencies lead to long-term disconnection from the land and loss of trust. Addressing these challenges requires not just emergency response improvements but also long-term investment in Indigenous-led recovery strategies that are culturally grounded, holistic, and community focused.

[23] Indigenous Services Canada. (n.d.). Emergency preparedness for Indigenous communities: Emergency management and evacuation plans. Retrieved from https://www.sac-isc.gc.ca/eng/1686078907307/1686078925161

**Government Resources**

**Canada**

**Building back better: Emergency Management Assistance Program Strategy** - The EMAP serves on-reserve residents who have evacuated due to a probable, imminent or an occurring threat; it also serves those on-reserve residents that have damages to their primary residence. It aims to meet the unique needs of First Nation communities following an emergency event flowing funding through the Capital Facilities and Maintenance Program.

**Capital Facilities and Maintenance Program (CFMP) -** CFMP provides funding for the construction, renovation, and maintenance of community infrastructure on reserves, including fire protection infrastructure like fire halls and water systems. This program supports the development of essential facilities to enhance community safety and resilience.

**First Nation Infrastructure Fund** - Funding for First Nations communities to improve community infrastructure.

**Ontario:**

**Indigenous Community Capital Grants Program (ICCGP) -** ICCGP funds the development of community capital projects that contribute to a sustainable social base and support economic participation in Indigenous communities, both on and off reserve. The program provides funding for feasibility studies, design completion, and construction/renovation of community infrastructure.

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There are a range of solutions—both practical and systemic—that can support better wildfire recovery outcomes. These should be community-led, culturally grounded, and sustained beyond the crisis.

**Recommendations – Supporting Community Recovery After Wildland Fire Events**

1. **Invest in fortified infrastructure: Strengthen roads, airports, power systems, and water access in remote communities to better withstand fire and support faster recovery.**
2. **Pre-position supplies and housing units: Stockpile essential resources (like air purifiers, backup generators, modular units) in regional hubs or within communities.**
3. **Simplify and coordinate funding: Create one-stop funding mechanisms that reduce red tape and align provincial, federal, and Indigenous support systems. Sustained funding is essential to support long-term wildland fire resilience.**
4. **Provide funding support for rebuilding community psychosocial resilience (e.g., land-based healing, culturally appropriate mental health support) as well as rebuilding infrastructure.**

# DECOLONIZING WILDLAND FIRE MANAGEMENT

## First Nations and Wildland Fire

Indigenous Peoples in the Boreal region co-evolved with wildland fire over thousands of years. Cultural or controlled burning evolved as a vital tool for land stewardship, cultural practices and ecological management. Cultural burning was an important community practice that was matched to local context. For Pikangikum First Nation, "*knowledge and relationship of fire is by no means limited to its potential role in managing vegetation at the scale of sites but includes knowledge of fire as it occurs at both smaller and larger scales*"[24] Not only did it improve landscape conditions, but also "*promoted intergenerational teachings, strengthened social networks, and supported overall community physical and mental health*"[25,26,27]

Burning was used to manipulate the landscape, creating a mosaic of successional stages and openings in the forest. This was integral to enhancing food sources, the diversity of medicinal plants, and reducing the accumulation of combustible materials around communities; thereby decreasing the risk of large-scale wildland fire. There were many other ecological and cultural reasons for using fire as a management tool, some of which are outlined in Table 1.

**TABLE 1. USES OF FIRE BY INDIGENOUS PEOPLES IN THE BOREAL.** [28]

| Ecological reasons | Social and cultural reasons |
|---|---|
| To open dense understories to improve chances of a clear shot when hunting | To extend the growing season |
| To force game, including birds, to expose themselves as they moved away from the advancing fire front | To improve settlements and campsite areas |

[24] Miller, A. M., Davidson-Hunt, I. J., and Peters, P. (2010). Talking about fire: Pikangikum first nation elders guiding fire management dialogue. In Miller, A. M. Living with Boreal Forest Fires: Anishinaabe Perspectives on Disturbance and Collaborative Forestry Planning, Pikangikum First Nation, Northwestern Ontario. PhD Thesis. Natural Resources Institute. University of Manitoba, Winnipeg, Manitoba. 152–177. p. 402

[25] Steffensen V. 2020. Fire country: how Indigenous fire management could help save Australia. International Journal of Wildland Fire, 29(11): 1052–1053.

[26] Lake FK, Wright V, Morgan P, McFadzen M, McWethy D, and Stevens-Rumann C. 2017. Returning fire to the land: celebrating traditional knowledge and fire. Journal of Forestry, 115: 343–353.

[27] Lake FK, and Christianson AC. 2019. Indigenous fire stewardship. Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires, Cham, Switzerland.

[28] Roy-Denis, C. (2015). Fire for Well-Being: Use of Prescribed Burning in the Northern Boreal Forest. Earth Common Journal, 5(1). http://www.inquiriesjournal.com/articles/1334/fire-for-well-being-use-of-prescribed-burning-in-the-northern-boreal-forest

| | |
|---|---|
| To maintain meadows, grasslands and new forest to provide forage for large mammals | To make and maintain trails |
| To burn deadwood and reduce fuel risk. | To increase berry production |
| To open up animal habitat | For religious reasons |
| To reduce pests (e.g., ticks) | To obtain firewood |
| To support biodiversity through creating edge habitats | To increase diversity of medicinal plants |

## Colonization and Wildland Fire

In Canada, there was a high level of anthropogenic burning during the early years of the migration of colonists toward the West Coast for mining, agriculture, railroad operations, and forestry. This eventually stimulated a major government response including the establishment of Dominion and provincial forest reserves and management organizations, as well as technological developments in pumps, engine spark arresters, and eventually aircraft.[29]

The introduction of colonial fire suppression policies in the late 19th and early 20th centuries disrupted these traditional practices. Legislation criminalized Indigenous burning, leading to a decline in cultural burning activities and a loss of associated ecological knowledge. This shift contributed to changes in forest composition and increased vulnerability of Indigenous communities to uncontrolled wildfires.

Some Indigenous Peoples still hold knowledge about seasonality, timing, fuel conditions, relative humidity, wind, other general weather conditions, slope steepness, and natural fire breaks as they relate to burning. However, in many communities Elders are the last generation with the knowledge of fire use. Past restrictions on the application of Indigenous fire knowledge and practice have created a generational gap in passing on traditional knowledge of fire as a landscape management tool in the Boreal.

At the NAN Wildland Fire Gatherings, Indigenous approaches to land management, such as controlled burns, were recognized for their value in reducing wildland fire risks. Participants highlighted the importance of integrating Indigenous knowledge and practices, such as cultural burns, into wildland fire management because there is a need to balance wildland fire mitigation with preserving cultural and ecological values in land management. Participants

[29] Pyne, S.J. 1997. An Awful Splendour, A Fire History of Canada. UBC Press. Vancouver, BC.

proposed more collaborative land management projects involving Elders and traditional land stewards. Workshops on cultural burning techniques were also suggested.

Some of the challenges noted for reviving cultural practices in the Boreal Region include:

- Biophysically driven regime of high-intensity, large-area fires, often started by lightning.
- In boreal mixed-wood stands dominated with conifers, only a narrow range of weather conditions exists between a controllable prescribed fire and a rapidly moving wildland fire.[30]
- Loss of local knowledge about cultural burning practices as a result of fire excluding policy and legislation.

While there are many calls to action related to the reintegration of cultural burning and its role in wildland fire management, there remain some practical barriers to overcome. On average, one billion dollars of public money is spent each year suppressing wildfires in Canada[31], with indirect costs to livelihoods and health much higher[32,33] However, relatively little of this money is invested in wildfire risk reduction practices, including more research and applications of Indigenous fire stewardship Technical Ecological Knowledge.[34,35] Some recent studies from US jurisdictions suggest that supporting Indigenous-led fire stewardship and governance to mitigate impacts of wildland fire can significantly reduce fire suppression costs in the long term.[36]

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[30] White, C.A., Perrakis, D.D.B., Kafka, V.G. et al. Burning at the Edge: Integrating Biophysical and Eco-Cultural Fire Processes in Canada's Parks and Protected Areas. fire ecol 7, 74–106 (2011). https://doi.org/10.4996/fireecology.0701074

[31] The right to burn: Barriers and opportunities for Indigenous-led fire stewardship in Canada. (n.d.). Retrieved June 26, 2025, from https://www.facetsjournal.com/doi/full/10.1139/facets-2021-0062#core-collateral-ref42

[32] Sankey S. 2018. Blueprint for wildland fire science in Canada (2019–2029). [online]: Available from cfs.nrcan.gc.ca/publications?id=39429.

[33] Johnston LM, Wang X, Erni S, Taylor SW, McFayden CB, Oliver JA, et al. 2020. Wildland fire risk research in Canada. Environmental Reviews, 28: 164–186.

[34] Christianson AC. 2015. Social science research on Indigenous wildfire management in the 21st century and future research needs. International Journal of Wildland Fire, 24(2): 190–200.

[35] Christianson AC, Caverley N, Langlois B, Eustache J, Andrew D, and Michel G. 2019. Xwisten and revitalizing traditional burning: Integrating Indigenous cultural values into wildfire management and climate change adaptation planning. Report prepared for First Nations Emergency Services Society and Xwisten.

[36] Marks-Block T, and Tripp W. 2021. Facilitating prescribed fire in Northern California through Indigenous governance and interagency partnerships. Fire, 4(3): 1–37.

While Indigenous Peoples have practiced fire stewardship for thousands of years and continue to hold deep knowledge of fire, there are still major challenges to fully re-engaging in cultural burning today. Collaborative efforts between Indigenous communities and governmental agencies should aim to blend traditional ecological knowledge with contemporary fire management to restore forest health and resilience.[37]

Many Indigenous communities face major challenges in reintroducing cultural burning due to decades of fire suppression and timber-driven forest management, which have led to dangerous fuel buildup in some areas of the province. Restoring these practices safely often requires expensive and labor-intensive fuel reduction work, a cost-intensive practice particularly when the thinned material has no commercial use or value to underwrite the cost of management and disposal.

Cumulative underfunding of infrastructure and services on reserves has also left many communities focused on urgent needs like clean water and housing, with little financial support or community capacity to rebuild fire stewardship practices.

**Recommendations – Reintegrating Indigenous Fire Stewardship**

1. **Work with MNR, NRCan and other agencies to increase knowledge of and formalize methods for incorporating traditional fire stewardship knowledge into regional wildland fire mitigation strategies.**
2. **Collaborate with Elders and knowledge keepers and include youth to preserve cultural knowledge about fire stewardship.**
3. **Host annual gatherings focused on traditional fire stewardship practices and knowledge transfer.**

## YOUTH PANEL

First Nations historically played an important role in modern wildland fire response for decades, with several generations of firefighters and emergency responders in some communities. In recent years, there has been a resurgence of interest in Indigenous fire stewardship. The 2024-2025 Gatherings highlighted some of the community initiatives that have been developed, in some cases in response to the challenges related to rapid wildland fire response in remote northern communities. Youth are an important part of and the future of this movement, and

[37] FACETS Journal. The right to burn: barriers and opportunities for Indigenous-led fire stewardship in Canada. https://www.facetsjournal.com/doi/full/10.1139/facets-2021-0062

the youth panel participants highlighted the importance of mentorship and the role of youth in changing fire management policy moving forward.

**Sharing experiences – youth panel participants**

I give a quick shout out to Eric Hansen there. You know, that fall, he started mentoring me, and later the next season, he started training me in wildland firefighting.

And as a young person, young man, and young two-spirit person, I see myself as a natural caregiver within my community and that need to want to take care of people and ensure their safety.

I think I think First Nation youth, have a really big role in becoming bridges and activists, kind of translators and in some of these conversations and, and recognizing that, some of the goals or some of the worldviews are not currently represented in policy, but there are ways to change that, and there are ways to make sure your voice is heard.

### Workforce Pathways and Barriers

Over the course of several days, presenters highlighted some of the job opportunities in wildland fire fighting that are open to young people who can access training opportunities. Jobs include:

- Type 1 & 2 fire crews
- Aviation mechanics
- Aircraft contracting
- Pilots – helicopter and fixed wing
- Community evacuation and fire liaisons

One of the key gaps in the province is in the crew leader range. It takes 4 or 5 years to get an individual the training and experience to take that next step to become an initial attack crew leader on a fire crew. The province is currently facing a shortage of qualified crew leaders that is somewhat geographically specific. It's harder to attract staff to areas that don't have housing or are very industrial like Greenstone, where a mine can take up all the housing that's available for staff or have even hired firefighters into the mine.

A national study (2022) found that only 2.2% of firefighters across Canada are of Indigenous descent, making them a minority in the workforce. According to “Blazing the Trail – Indigenous Fire Stewardship”… “*a change in emphasis on safety standards, fitness requirements, and crew structure and changes to firefighting practices in the 1990s reduced the number of Indigenous Peoples working for wildfire agencies across Canada. For Indigenous firefighters that continued firefighting for wildfire agencies, the tactics shifted to predominantly non-Indigenous fire suppression. Many Indigenous wildland firefighters are now employed on temporary or contract-based roles such as seasonal Type 2 firefighters. Given the long history and land-based lived*

*experiences in fire stewardship along with the realities of wildfire effects on Indigenous communities, there are not enough Indigenous firefighters in Canada currently employed in permanent and/or management positions. This is likely due to the requirement by wildfire management agencies of post-secondary/technical education over lived "on the ground" fire experience."*

There are currently three options for Indigenous firefighters, which also include barriers for trained community members such as:

1. Joining the province for full-time seasonal work
    - barriers for meeting hiring eligibility that individuals in-community do not have access too.
    - barriers to re-location due to increased cost of living, access to transportation, and accommodations are limited to certain locations.
2. Type 2 system where firefighters work from home on a casual/on-call basis
    - barriers due to flight costs/aircraft availability.
3. Communities develop programs that use their own trained firefighters to respond to local fires
    - more support and funding are required to develop collaborative, well-resourced, frameworks between First Nation and Government working relationships.
    - a strategic plan to utilize indigenous-owned resources is not currently available for wildland fire management on Indigenous ancestral lands.

The Gatherings identified a need for accessible and consistent training for community members in wildland fire management. Developing and standardizing a wildland fire suppression training curriculum for communities and delivering it in communities would reduce barriers for community members to participate in wildland firefighting.

**<u>Recommendations - Training</u>**

1. **Develop community-based training programs (SP100 and SP200) with MNR AFFES instructors that specialize in First Nations training, and train-the-trainer programs to minimize barriers to participation.**
2. **Work with MNR AFFES to ensure training and seasonal employment opportunities are communicated and made available.**
3. **Identify systemic barriers to regular employment of trained Indigenous fire crews.**

### Firefighting Equipment Shortages

Gathering participants and presenters discussed the importance of pre-season preparation to ensure that necessary firefighting tools and equipment are available in the community and in

good working order. Part of this is ensuring the interoperability of equipment purchased, so that tools and machinery from different agencies can work together effectively. Presenters highlighted delays due to global wildfire equipment demand and advised pre-purchasing critical parts.

The types of potential community equipment includes: fire hydrants, sprinklers, fire extinguishers, fire suppression equipment (pumps, hoses, backpacks, and handheld tools), Northern protection kits, rapid attack multi-use apparatus, first aid kits, Nomex clothing, wildfire brush trucks, heavy-duty pumper/tank trailers, and high-end community value protection pumps, Quick Deploy FireBozz cannon sprinklers, I.A Fire Rescue boats, heavy-duty chippers, among other things.

Some of the concerns related to equipment raised included:

- A lack of appropriate firefighting vehicles and maintenance funds.
- Long wait times for parts and equipment, as well as repairs to current inventory.
- Lack of training in maintaining and using firefighting equipment.
- The high cost of bringing equipment in, getting more challenging as the winter road operability window closes due to climate change and the cost of air transport for equipment and personnel increases.

**Recommendations – Equipment**

1. **Conduct annual inventory planning, ensure serviceability and interoperability and secure critical parts ahead of wildland fire seasons**
2. **Increase investments in maintaining and servicing firefighting equipment before the wildland fire season.**
3. **Provide ongoing maintenance and service support for firefighting vehicles and equipment.**

PROFILE: MATTAWA FIRESMART EQUIPMENT FUNDING

In 2023, Matawa First Nations Management (MFNM) was able to secure two wildland fire rapid attack bush trucks for use in Eabametoong First Nation and Webequie First Nation. The purchase of these vehicles was made possible by the partnership between FireSmart Canada/Ontario, Indigenous Services Canada, and Matawa First Nations through a FireSmart Project.[38]

## COMMUNITY-LED WILDLAND FIRE INITIATIVES

Presentations at the Gatherings highlighted several community-led initiatives, that are being instigated by people in communities taking leadership roles in ensuring better local coordination of wildland fire management. Collaborations and resource-sharing are an important part of these projects.

**The 2023 Far North Regional Wildland Fire Training Initiative/Community-led Wildland Firefighter Training (Weenusk First Nation, Peawanuck)**

- An inter-agency collaboration to empower NAN communities and to improve wildland fire preparedness by increasing local firefighting capacity through certifying community members in SP100 as wildland firefighters.
- Training took place in the community of Weenusk First Nation providing economic opportunity to the First Nation.
- Partners included Weenusk First Nation, Nishnawbe Aski Nation, MNR Indigenous Relations Team, Keewaytinook Okimakanak, and the participating community members of Weenusk, Fort Severn, Keewaywin, McDowell Lake, and Fort Albany.

[38] Matawa First Nations Management. (2023). Matawa First Nations Management receives Indigenous Services Canada support to secure two wildfire rapid attack bush trucks. Retrieved January 2, 2025, from https://www.matawa.on.ca/matawa-first-nations-management-receives-indigenous-services-canada-support-to-secure-two-wildfire-rapid-attack-bush-trucks/

PROFILE: INDIGENOUS FIRE CREWS INITIATIVE

The Whitefeather Fire Rangers crews from Pikangikum First Nation were first established in 2014 in partnership with Whitefeather Forest Community Resource Management Authority and the community. They were driven by community priorities, are community-based with shared accountability and have strong connections to the Community Fire Officer and local AFFES Fire Management Headquarters. The crews are recognized as a successful model that could be expanded to other First Nation communities. Since 2014, there has been a progressive expansion of the Initiative Crew program with 9 additional community-based Initiative crews funded by ISC, including: Wabseemoong Independent Nations, Mishkeegogamang Ojibway Nation, Lac Seul First Nation, Whitesand First Nation, Fort William First Nation, Kiashke Zaaging Anishinaabek, and Aroland First Nation.

The roles and responsibilities of fire crew can vary, depending on local priorities, capacity and training. Work can build off FireSmart Community Wildland Fire Protection Plans and mitigation strategies and include:

1. Community education – fire prevention and awareness, and cultural teachings
2. Fuel treatment and hazard reduction
3. Providing fuel wood to Elders
4. Hazard reduction around infrastructure
5. Waste disposal sites
6. Forward Attack Base maintenance
7. Firefighting experience and deployments
8. Community projects

**Independent First Nations Alliance Integrated Emergency Services, Fire Rescue Community Crews**

- The Independent First Nations Alliance (IFNA) is a First Nations-led Tribal Council for the five communities of Whitesand First Nation, Lac Seul First Nation, Kitchenuhmaykoosib Inninuwug, Pikangikum First Nation and Muskrat Dam First Nation.
- Crews are trained in all hazards to respond to a diversity of emergencies including wildland urban interface fires
- This initiative builds First Nations capacity on reserve, reducing reliance on external emergency services, and incorporates local knowledge to identify threats at the community level
- Among its activities, IFNA works with government partners to help coordinate fire response in communities including training, equipment, FireSmart activities, inspection and maintenance of community infrastructure, including fire alarms and smoke detectors.

**Thunderbird Collective (housed in the Indigenous Leadership Initiative, est 2024)**

Budget 2019 provided funding support for the establishment of a National Indigenous Wildfire Management Working Group, provides a safe and ethical space for Indigenous Peoples to work together to support and advocate for Indigenous involvement and leadership in wildland fire management including:

- supporting improved fire management on traditional lands,
- increasing ability of Indigenous communities to support the application and retention of Indigenous Fire Knowledge, and
- facilitating knowledge sharing and co-creation of fire management strategies and policies with western science practitioners.

## PROFILE: WEENUSK FIRST NATION WILDLAND FIRE INITIATIVE (WFI)

Weenusk First Nation is taking a grassroots approach to wildfire management by developing a community-based Wildland Fire Initiative (WFI). The WFI is an independent fire response program that reflects both proactive planning and a self-reliant response to the increasing wildland fire threat in Ontario's Far North.

Weenusk First Nation, located in Peawanuck Ontario, is a remote fly-in-only community on the Hudson's Bay coast with no year-round road access. Travel is limited to expensive flights, often costing thousands of dollars—with estimated flight times ranging from 1.5 to 3 hours from the nearest hub. This level of isolation presents significant logistical and financial challenges, particularly during emergencies. As a result, building self-reliance and sustainability is essential. Historically, residents have taken it upon themselves to respond to wildfires, protecting their community with limited resources. Establishing WFI is a crucial step in promoting safety and reducing the risks associated with delayed external support.

The WFI is primarily funded through federal sources, including the competitive, application based, Emergency Management Assistance Program (EMAP), as well as Wildland Urban Interface funding from the Infrastructure Program under Indigenous Services Canada (ISC)While the province of Ontario supports the initiative with resources such as training, emergency preparedness support, and occasional equipment, substantial gaps in funding and capacity remain.

### TRAINING AND CREWS

Weenusk operates its own community wildland fire crews, consisting of approximately 13–14 trained personnel, organized into three 4-person crews compromising of individuals trained in SP100 and SP203. Additional support is provided by SP103-trained personnel who serve as emergency back-up members. Averaging a total of 20 personnel for the program. These crews are mainly volunteers, who are compensated when possible. Crew members are trained in wildland fire response through courses such as SP100, a crew member wildland firefighter certification, first aid and AED, radio operations, bear awareness, and hazardous materials safety (WHMIS). Additional training, such as the SP230 course designed for structural fire departments, is pursued when resources permit as an immediate solution to develop leadership capacity in the wildland fire program. Specialty and advanced training opportunities, such as crew leader certification, remain largely inaccessible due to their limited availability within the province, and the financial and logistical challenges of the remote location to bring in supports from out of province. The WFI requires additional capacity and partnerships to research, develop, and deliver in-house training programs.


**FIGURE 5. WEENSUSK FN FIRE CREWS.**

### Planning and Funding

A component of the initiative is the creation of a Community Wildfire Protection Plan (CWPP), currently being prepared by the WFI lead, in cooperation with the Band Council. Developing such plans requires comprehensive assessment, including evaluating fuel loads and mapping infrastructure—work that often takes a full year to complete. Planning must align with seasonal conditions such as "green-up" periods, further complicating timelines.

Federal and provincial funding for equipment and support is often contingent on the completion of CWPPs, up-to-date emergency plans, and the resolution of all outstanding reports. These administrative hurdles present significant barriers to First Nations like Weenusk, where capacity is limited and often a single individual must manage all the work themselves to run the entire operation. Although Weenusk has applied for FireSmart Canada funding through Indigenous Services Canada, they have not received any grants to date, mainly because of an inability to meet these procedural requirements, resulting in the First Nation to rely on volunteer work to perform mitigation practices to protect their isolated community.

### Fire Response and Mitigation Practices

Weenusk responds to wildfires within their jurisdiction under a newly established mutual First Nation Fire agreement with Ontario's Ministry of Natural Resources (MNR), which reimburses the community for approved responses. Reimbursement from ISC has proven slow and does not provide the certainty of reimbursement unlike an agreement, which provides that certainty; one $8,000 claim reportedly took over a year to process through ISC.

In recent years, the community has successfully responded to several small wildland fires, containing most to 0.1 hectares with response times under 10 minutes for incidents occurring within 2 km of the community. As a result, preventing these fires from becoming complex emergencies. This effectiveness is attributed to trained volunteer fire crews who are equipped and prepared for immediate response. A three-stage alert system, informed by daily conditions and fire behavior forecasts, guides dispatch times. However, fires posing an immediate threat to the community receive an instant dispatch regardless of conditions. The Wildland Fire Initiative operates independently from the Structural Fire Department and does not divert resources from structural fire preparedness and response but still promotes collaboration between the two branches if required.

Residents also engage in grass burning each spring, a traditional practice to reduce fuel loads that can assist in Wildland Urban Interface mitigation. The community has taken direct action to mitigate fire risk through the construction of fire breaks. A fire break on the southern end of the community measures approximately 600 by 60 meters and was built using heavy equipment in collaboration with the local public works department. Additional efforts include clearing overgrown properties and brush, creating fuel breaks around critical infrastructure such as the hydro plant, conducting slash pile and grass burns, and promoting FireSmart. The presence of a local WFI promotes fire awareness among the community resulting in residents doing their part to protect their home and to understand good fires on the land.

### Systemic Barriers

Despite their success, Weenusk faces significant structural challenges. A lack of communication and involvement between First Nations and governments creates administrative burdens for First Nations, and around First Nation jurisdiction from the perspective of Provincial and Federal governments, often resulting in a ping pong effect. The community has attempted to connect with neighboring First Nations and broader networks including Nishnawbe Aski Nation (NAN) but response resources to support mutual aid agreements remain limited.

> "Working together is effective because it allows us to combine our strengths, resources, and ideas to achieve a common goal efficiently."
>
> ***Daylan Chookomolin, Wildfire Management Coordinator, Weenusk First Nation***

In the future, Weenusk envisions more integration of Indigenous wildland fire management, community involvement, and reciprocal relationships between First Nation and Government. However, the current system lacks a strategic framework for collaboration and underutilizes Indigenous fire stewards and firefighters. Challenges include recognition, support, as well as jurisdictional concerns over fire response on reserve lands, community protection zones, traditional territorial land, and Crown land. Furthermore, funding streams and government departments that support training for Indigenous firefighters often lack long-term strategies for integrating and retaining these individuals within the broader workforce

**Recommendations - First Nations Fire Stewardship**

- **Create a National Indigenous Incident Command team that works parallel to the Canadian Interagency Forest Fire Centre (CIFFC) to respond to wildland fire emergencies.**
- **Develop a network of Indigenous and non-Indigenous fire practitioners and researchers to identify key policy barriers for reintroducing cultural burning, including (but not limited to) jurisdiction, liability, and land governance**
- **Reduce wildfire science and management gate-keeping by opening up prescribed fire training and accreditation outside of wildland fire management agencies. Build capacity and support for Indigenous-led fire practitioner accreditation through programs such as Prescribed Burn Associations (PBAs) and Prescribed Fire Training Exchanges (e.g., TREX), as used in other countries.**

### Developing Joint Governance Models for Managing Wildland Fire

Despite examples of success, one of the challenges in fire management policy is that joint governance models have not yet been integrated across the province's fire management framework. Forest tenure reform in Ontario provides an example of how policy integration can lead to successful partnership/joint venture governance models where Indigenous communities are meaningfully involved and overseeing decision-making but where needed, have the necessary support through partnerships to build long-term capacity in forest management.

**Recommendations – Coordination and Collaboration**

1. **Build partnership and joint governance models into provincial and federal agencies (JEMS and COVID-19 task force as working examples).**

# BUILDING RESILIENCE TO WILDLAND FIRE

# Knowledge Gaps and Institutional Barriers

## Research and Innovation

### Governments

Ontario and Canada are investing in research to improve wildland fire forecasting, suppression techniques, and fire management tools. This includes studying fire behaviour, the effects of climate change on fire seasons, and developing innovative firefighting equipment. Research partnerships are an important part of this work.

For example, a recent collaboration between Natural Resources Canada and the University of Alberta has created a map of Ontario's Wildland-Urban Interface areas, highlighting those at the greatest risk of wildland fire. To define these areas, they positively correlated low-risk communities with areas that have been recently burned. The more recently burned area that exists around an urban-interface area, the lower the risk of catastrophic wildland fire, and vice versa. Until their collaboration, there had been no composite resource of Wildland-Urban Interface areas available in Canada.[39]

Investments are being made to fund research that examines wildland fire risk by region, optimal mitigation strategies and technologies that can enhance community resilience.

**Government Resources**

**Build and Mobilize Foundational Wildland Fire Knowledge** - $48 million invested by NRCan over four years starting in April 2024 to address gaps in foundational knowledge by developing and evaluating wildland fire risk assessment and risk mitigation strategies and technologies that support Indigenous peoples, local and provincial/territorial governments and fire management agencies to reduce wildland fire risk in the face of a changing climate.

However, there remain gaps in knowledge, both scientific and Indigenous knowledge, that could help develop better mitigation and management strategies for wildland fire in the Boreal Region.

### Indigenous Leadership Initiative – Guardians and Wildfire Management Project

The Indigenous Guardians and Wildfire Management project is focused on creating a draft national strategy to guide greater Indigenous Guardian involvement in wildland fire planning and response. This work explores how Indigenous values and knowledge systems can be more fully integrated into the management of fire-affected ecosystems, the revitalization of cultural burning and traditional fire stewardship, and the development of coordinated wildland fire response frameworks across Guardian programs. To support this effort, the Indigenous

[39] Base 2023.

Leadership Initiative has formed a national advisory committee made up of academics, practitioners, and experts. This committee is helping to identify key opportunities, gaps, challenges, and barriers that may shape the evolving role of Guardians in wildland fire management and represents Indigenous-led research priorities for improved wildland fire management in Canada.

**Recommendations - Research Gaps**

1. **Improve collection of climate data for the north** - The quality of the fire weather data in the northern parts of the country are less reliable than that in the south due to the low density of weather stations.
2. **Document the ecocultural use of fire by First Nations in the Boreal region** - there is limited information available about the eco-cultural use of fire by First Nations, particularly in the Boreal Region. Elders still hold knowledge, but there is limited time to share that knowledge with new generations before it is lost.
3. **Develop better accounting models for estimating the total cost of wildland fire** - Understanding vulnerability requires accounting for the total cost of a wildland fire disaster, including suppression costs, disruptions to business and tourism, recovery costs, mental and physical health costs, and ecological impacts. It should also consider the physical and socio-economic conditions that limit coping with long-lasting impacts, including the interactions of political, social, and economic factors.

### Institutional and Governance Challenges

First Nations in Ontario face significant institutional and governance barriers that restrict their ability to take on greater roles in wildland fire management. Although they possess generations of fire knowledge and stewardship practices, their involvement is often limited by overlapping jurisdictions, colonial structures, and insufficient resources. Fragmented programs between federal, provincial, and Indigenous governments create confusion and limit coordination, while inflexible policies and funding systems often sideline Indigenous-led strategies. Additionally, gaps in training opportunities and the lack of formal recognition for Indigenous knowledge systems prevent meaningful participation in both planning and operational activities. These obstacles not only weaken fire management efforts but also delay the restoration of Indigenous leadership and practices, such as cultural burning, that are essential for healthy landscape and safer communities.

A key theme at the Gathering was that First Nations communities should not merely be included in fire management systems—they should lead them. Respondents emphasized the need for a centralized, First Nation–led and operated agency to coordinate wildland fire response and prevention activities across the region. Increasingly, Indigenous communities are not asking for

"a seat at the table," but for support in leading their own solutions, with government agencies playing a collaborative, not directive, role.

> "Ideally, we'd have a centralized agency that is First Nation led and operated and owned, because right now we have, you know, different agencies doing different things and some step over each other's toes in an ideal environment. That's how I see it operating. This agency would be able to ensure that First Nation led solutions are given the opportunity. And so in the the push and the and the preparation and the work that First Nations and indigenous organizations are doing, it's not simply about wanting to get a seat at the table."
>
> ***Community participant, 2025 NAN Wildland Fire Gathering***

Challenges in the wildland fire management system are systemic and interrelated. Capacity issues are tightly linked to policy rigidity, siloed funding, and outdated organizational structures. Agencies should look to existing models, such as the Joint Emergency Management Steering Committee (JEMS), for how cross-jurisdictional and community-led collaboration can be structured. Additionally, governments need to adapt to more flexible, network-based coordination and support the integration of fire management with broader land stewardship, emergency response, and cultural revitalization goals. Embracing flexibility may be necessary to enable innovation and local leadership.[40]

## CONCLUSIONS

In the face of climate change, it is critically important to improve the preparedness of First Nations communities in Ontario's north to emergencies related to wildland fire. Promoting a community-led approach would help to ensure the long-term ownership of solutions that are developed for and by communities.

The growth of Indigenous-led capacity presents an opportunity to reimagine governance. Because of the inherent complexity of wildland fire management, coordination must be infused with systems thinking and structural change.

Preparedness for wildland fire disasters occurs when all phases of fire management are appropriately planned, resources and implemented (Figure 6). One of the key objectives of the NAN Wildland Fire Gathering is to determine how to increase the preparedness of communities

[40] Wildland fire management in Ontario: Scan of the institutional landscape for supporting First Nation communities. 2024. Centre for Northern Forest Ecosystem Research. Information Report IR-33 Science and Research Branch Ministry of Natural Resources and Forestry. https://www.publicdocs.mnr.gov.on.ca/srb/Pubs/IR-33.pdf

to the expected increase in wildland fire under future climate change scenarios. Recommendations have been made to address five stages of wildland fire management, from prevention, to mitigation, to preparedness, to response and recovery in NAN communities.


**FIGURE 6. WILDLAND FIRE MANAGEMENT PHASES (SOURCE: TYMSTRA ET AL., 2020)**

NAN communities are taking proactive steps to adapt to changing wildland fire risks. There are actions underway to improve on wildland fire risk management including prescribed burns, firebreaks, stand thinning, community wildland firefighters, and the acquisition of bush trucks for remote firefighting. Communities are doing advocacy for funding to support operational needs, training, and maintenance for firefighting equipment and creating plans to improve communication channels between communities and organizations. The use of unconventional tools (like sewage trucks filled with water) and sharing of resources have showcased ingenuity in crisis.

In Ontario and across Canada, First Nations are starting to proactively step into fire prevention and response roles in their communities. It was observed at the Gatherings that this has created some confusion and tension over who has jurisdiction in what area of wildland fire response and management. As one government participant put it, wildland fire management in Ontario is a 'messy space' right now. However, there are positive moves toward improved collaborations that combine local traditional knowledge and science and make way for First Nations to reclaim their place as wildland fire stewards in their communities and territories.

Despite these barriers, there are growing efforts by both governments and First Nations toward more meaningful engagement. Agencies such as MNR AFFES, Emergency Management Ontario

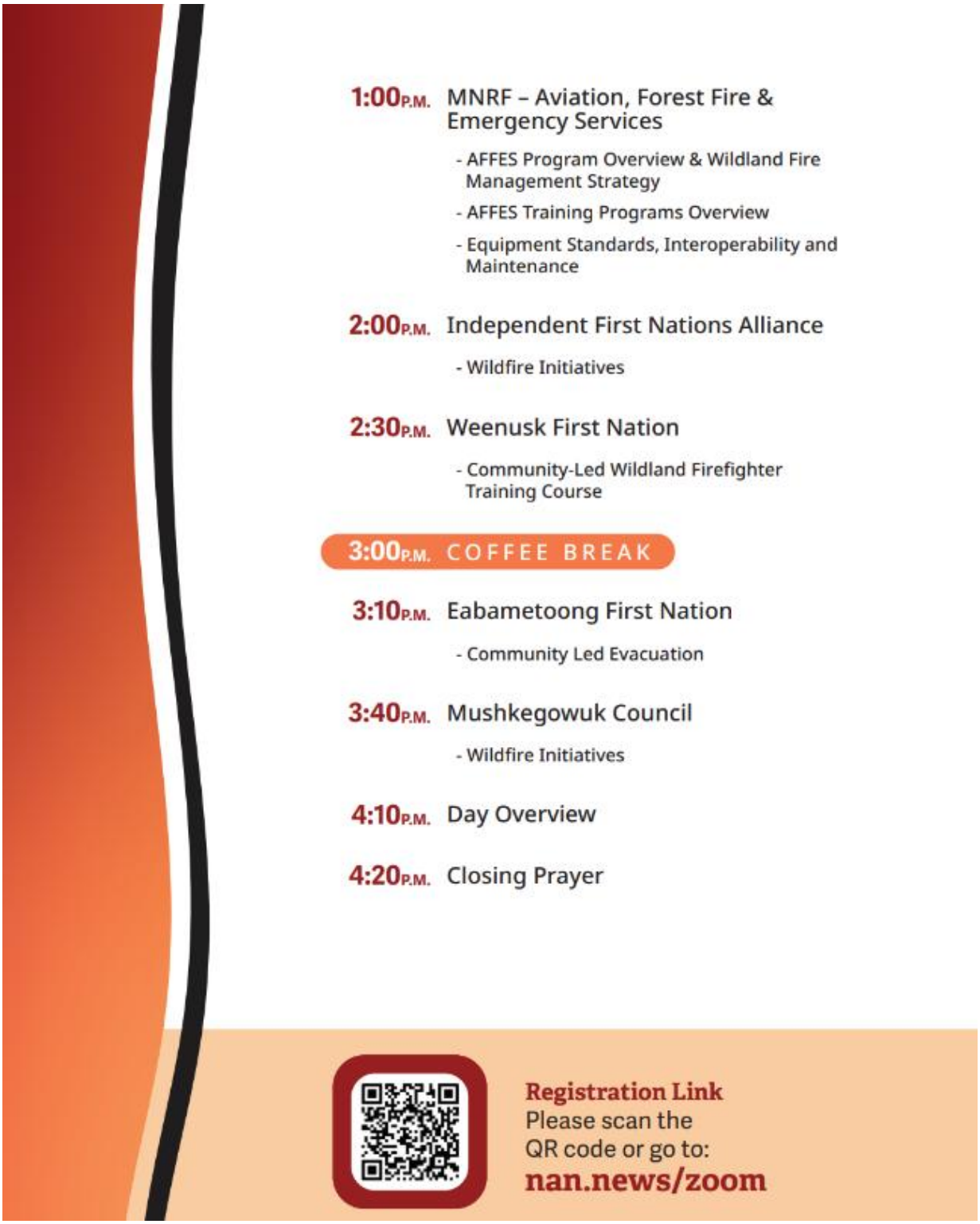
(EMO), and Indigenous Services Canada (ISC) are making concerted attempts to reach across silos and improve coordination. Both the MNR and EMO have established specific Indigenous Relations teams to prioritize meaningful engagement and reconciliatory actions.

> I think gatherings like this are important opportunities to learn from one another, not only about great ideas and innovation, but also about lessons that we learn as emergency responders and, members and benefactors of those response efforts so that we can all learn and improve together.
>
> ***Government presenter, 2025 NAN Wildland Fire Gathering***

The 2024-2025 NAN Wildland Fire Gatherings provide a foundation for moving forward to address gaps and inequities in wildland fire management. Climate change increasingly makes managing wildland fire a moving target that demands an adaptive response. Addressing the recommendations and community concerns summarized in the report will help build community preparedness in the face of changing wildland fire experiences across NAN Territory.

> “I've been at it for a while and something is really, it just makes you angry, you know. It's from the outcome department. Like, what the heck is going on? You know, so many good people working at a tremendous opportunity here, but we can't get there. It's almost like, a person reaching out and trying to grab ahold of a hand but just can't quite reach it. So, maybe part of the solution is exactly what we're doing today. And what I believe in is the kitchen table model. Maybe the other thing is pull up a stump, sit with me beside the fire, and we'll have a cup of tea and we'll see where we can go with this thing in reality.”
>
> ***Community participant, 2025 NAN Wildland Fire Gathering***

## Appendix A: NAN Wildland Fire Gathering Agenda 2024


1:00P.M. MNRF – Aviation, Forest Fire & Emergency Services
- AFFES Program Overview & Wildland Fire Management Strategy
- AFFES Training Programs Overview
- Equipment Standards, Interoperability and Maintenance
2:00P.M. Independent First Nations Alliance
- Wildfire Initiatives
2:30P.M. Weenusk First Nation
- Community-Led Wildland Firefighter Training Course
3:00P.M. COFFEE BREAK
3:10P.M. Eabametoong First Nation
- Community Led Evacuation
3:40P.M. Mushkegowuk Council
- Wildfire Initiatives
4:10P.M. Day Overview
4:20P.M. Closing Prayer
Registration Link
Please scan the QR code or go to:
nan.news/zoom


Wednesday, March 27
9:00A.M. Opening Prayer
9:15A.M. Welcome & Agenda Overview
9:30A.M. NAN Opening Address
9:45A.M. MNRF, Aviation, Forest Fire & Emergency Services
- Overview of available information sources and who to contact
- Mitigation Opportunities for Community-Led Initiatives
10:45A.M. COFFEE BREAK
11:00A.M. Emergency Management Ontario, Provincial Emergency Operations Center
12:00P.M LUNCH
1:00P.M. Natural Resources Canada
- Wildfire Initiatives
- Funding Opportunities
1:30P.M. Indigenous Services Canada, Ontario Region
- Emergency Management Assistance Program
Registration Link
Please scan the QR code or go to:
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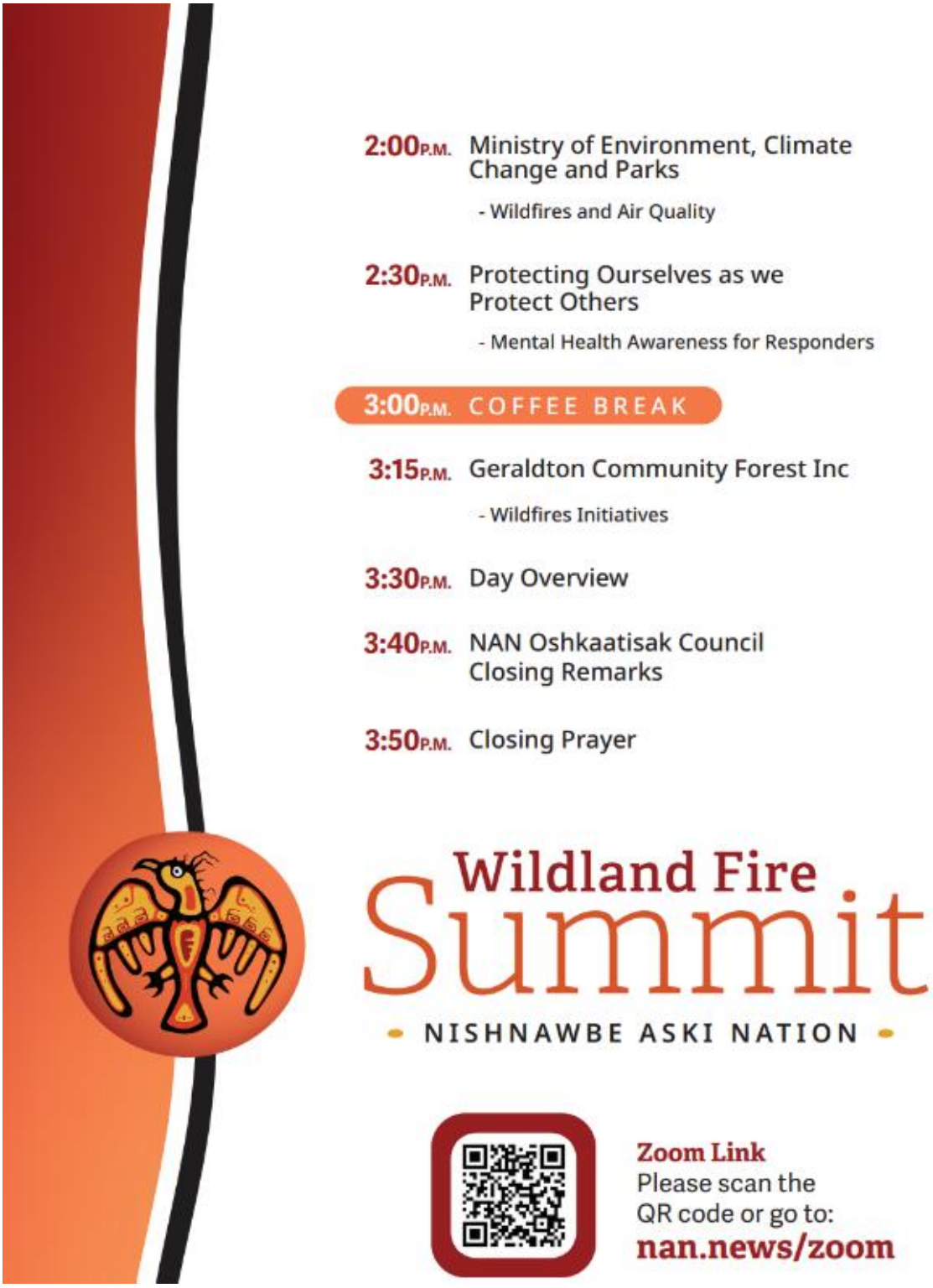
2:00P.M. Ministry of Environment, Climate Change and Parks
- Wildfires and Air Quality
2:30P.M. Protecting Ourselves as we Protect Others
- Mental Health Awareness for Responders
3:00P.M. COFFEE BREAK
3:15P.M. Geraldton Community Forest Inc
- Wildfires Initiatives
3:30P.M. Day Overview
3:40P.M. NAN Oshkaatisak Council Closing Remarks
3:50P.M. Closing Prayer
Wildland Fire
Summit
NISHNAWBE ASKI NATION
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## APPENDIX B: NAN WILDLAND FIRE GATHERING AGENDA 2025


THURSDAY
MARCH 27, 2025
9:00 A.M. Call to Order MC and Summary of Day 2
Kevin Ramcharan
9:15 A.M. 2024 Fire Season Overview, Weather Outlook for Spring 2025
Darren McLarty, Provincial Coordinator Planning, Research, and Development
10:15 A.M. Coffee Break
10:30 A.M. Camp Molly
Monique Belair, Camp Molly
11:00 A.M. Fire Prevention in NAN Communities
Shane Ferguson, Bob Popovic (Shibogama), Matthew Sainnawap (Kingfisher Lake FN)
12:00 P.M. Lunch
1:00 P.M. EMO Presentations - PEOC and Indigenous Engagement and Support Unit
2:00 P.M. Wildland Fire Management In Ontario: Scan of the Institutional Landscape for Supporting First Nation Communities
Lance Robinson, Research Scientist
2:45 P.M. Coffee Break
3:00 P.M. IFNA Wildland Fire
Eric Hansen and Nick Rhone, IFNA
3:30 P.M. AFFES Presentation - AFFES Information Sources & Who to Contact
Chelsea Pearson, Partnerships Specialist
4:10 P.M. Day 2 Overview and Adjournment
Kevin Ramcharan
4:20 P.M. Drum/Closing Prayer
Thunder Mountain Singers, Barney Batiste
4:30 P.M. Days End
MIIGWETCH FOR JOINING US!
Nishnawbe Aski Nation

## APPENDIX C: NAN WILDLAND FIRE GATHERING PARTICIPANT SURVEY RESULTS

A participant survey offered feedback to the organizers, including topics that were of interest for 2025. The feedback included most valued topics, areas for more information and some of the priorities for partnerships moving forward.

**Most Valued Topics and Presentations:**

- Community perspectives and experiences with wildfires were highly appreciated, especially firsthand accounts from community members and leaders.
- Presentations on FireSmart initiatives, wildland fire suppression systems, and specific community programs like the SP100 far north regional wildland fire training and youth training in Weenusk First Nation stood out.
- Attendees emphasized the importance of community-led approaches and the potential for partnerships with MNR's Aviation, Forest Fire and Emergency Services (AFFES).

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**Topics Attendees Want More Information On:**

- Practical solutions for remote communities, including resources, training, and firefighter networks.
- Funding mechanisms, equipment procurement, and hiring processes for Type 2 firefighters.
- Communication and coordination, including roles of NGOs and success story sharing.
- Interest in evacuation planning and how to access support from Indigenous Services Canada (ISC).

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**Top Partnership Priorities with MNR AFFES:**

- Clear, two-way communication with communities.
- Community capacity-building, hiring local Indigenous firefighters, and prioritizing local crews.
- Support for SP-200 implementation, First Nation Fire Agreements, and establishing full-time fire leadership roles in communities.
- Emphasis on off-season support, daily briefings, and collaborative planning (e.g., Wildland Fire Initiative).