

2023

# Cultural & Prescribed Fire

## Annual Summary Report



CULTURAL BURNING  
& PRESCRIBED FIRE



BC Wildfire  
Service



# EXECUTIVE SUMMARY

Fire is a natural process that is necessary for many ecosystems in B.C. and has been used by Indigenous People since time immemorial. Decades of successful fire suppression have resulted in a build-up of forest fuels in many forest types, negatively impacting B.C.'s many fire-adapted ecosystems. Combined with the impacts of climate change and human expansion into previously uninhabited spaces, B.C.'s forests are at a greater risk of severe wildfire activity than ever before.

Cultural and prescribed fire is an important tool for maintaining the health and safety of B.C.'s forests, communities and wildlife. The

Province is committed to expanding the use of beneficial fire as a land stewardship tool in partnership with First Nations. Working together, much progress was made in 2023.

Despite a record-setting and immensely challenging wildfire season, a total of 23 cultural and prescribed fire projects were implemented in 2023. Many of these projects were the result of resilient partnerships between the BC Wildfire Service (BCWS) and First Nations, local governments, industry partners, and many others.

At the same time, significant progress was made toward the co-development of a stable



long-term policy framework for cultural and prescribed fire. Consultation and engagement with First Nations informed initial changes to the Wildfire Act that make it easier for the BCWS to assist with burning when requested. Work continues to establish new training and capacity-building opportunities to develop and maintain the expertise needed for the safe use of cultural and prescribed fire. In addition, BCWS further streamlined existing planning and authorization processes to reduce barriers and clarify roles and responsibilities.

As we walk this path together, the BCWS is grateful to all our partners, without whom this work would not be possible. We will continue to prioritize relationships with communities, which not only advance the use of cultural and prescribed fire, but are essential for the safety and resiliency of all communities in B.C.

### Definitions

**Cultural Burning** is a practice that has existed for millennia. It holds different meanings for different Indigenous communities but is often defined as the controlled application of fire on the landscape to achieve specific cultural objectives.

**Prescribed fire** is the planned and controlled application of fire to a specific land area and is one of the most ecologically appropriate and relatively efficient means for achieving a variety of land management objectives.

**Shared Stewardship** is a collaborative approach to land management that focuses on working together with government agencies and other partners to establish joint priorities and opportunities.





## 2023 CULTURAL AND PRESCRIBED FIRE ANNUAL SUMMARY

The Airport Pasture prescribed burn on ʔaq'am reserve land was developed and led by members of the ʔaq'am First Nation in collaboration with external consultants and BC Wildfire Service staff from the Cranbrook Zone. BCWS staff largely assisted the project with resources for ignitions and control.

"Regular burning was a part of our cultural practices pre-contact times when it was just Indigenous people in this province. A part of forest management was regular burning. We used fire often and all over Ktunaxa homelands. The size of the fire, the intensity of the fire that we had out there this summer, if it wasn't for that prescribed burn, it would have gone directly towards the airport itself. There's a likelihood that it could have encompassed the entire property of the airport. BC Wildfire Service were able to move their own resources to other parts of the fire and they didn't actually have to worry about the prescribed burn area itself, because they knew that the prescribed burn area was doing what it was supposed to do. It was acting as a barrier."

Nasuʔkin (Chief) Joe Pierre Jr., ʔaq'am, reflecting on how the spring burning project ʔaq'am implemented with BCWS support protected his community during the St. Mary's River wildfire.



Cultural and prescribed fire projects are carefully planned to achieve specific land stewardship objectives, which can include wildfire risk reduction, ecosystem restoration, First Nations values, silviculture objectives like site preparation, and habitat objectives. To realize these objectives, burning projects require specific site and weather conditions to achieve the intended fire effects. For example, a burn plan may call for low-intensity fire that impacts surface fuels only or a higher-intensity burn that is able to climb into ladder fuels and affect the canopy. It may not be possible to maintain low-intensity fire behaviour when the weather is too warm and dry.

Generally, the conditions required for cultural and prescribed fire are found during the spring and fall but this is not always the case. Practitioners constantly monitor burn units to

ensure that projects proceed only when the site and environmental conditions are favourable to ensure the safety of crews and that the burn objectives can be met.

In 2023, unfavourable conditions in many parts of the province were compounded by a record-setting wildfire season that demanded the full attention of the BC Wildfire Service from April through October. The conditions that led to the 2023 wildfire season started in 2022, when British Columbia experienced one of the warmest and driest Octobers on record. Daytime highs were consistently four to 10 degrees above normal and there was very limited precipitation for what is typically a cool and wet month. Due to the limited moisture, drought conditions in the forests were much higher than normal.





# SPRING BURNING SEASON

Elevated drought codes carried over into spring 2023 and set the stage for a challenging spring burning season. Many northern regions of the province did not see significant precipitation throughout fall 2022 before the ground froze. These conditions, combined with high temperatures and low relative humidities caused by spring dip, meant that the northern

Fire Centres (Northwest and Prince George) did not see the necessary conditions to implement planned spring burning projects safely before wildfires started in late April. Despite these challenging conditions, work to collaborate with local partners continued in the north this spring.



### Case Study: Gitanyow Fire Stewardship Program

“For more than a century, colonial governments outlawed Indigenous burning, disrupting cultural fire systems and knowledge transmission within Gitanyow. DRIPA legislation and the Blueberry First Nation court case has altered how the B.C. government interacts with Indigenous People and, combined with repeated extreme fire seasons, catalyzed more proactive work with First Nations on fire stewardship. In 2022, BCWS approached the Gitanyow Lax’yip Guardians (GLG) program about developing a fire stewardship program - a pivotal step towards reconciliation and a recognition by BCWS that they need First Nations help to conduct prescribed and cultural fire.

In recent decades, discussions around fire have mostly been informal, but include a Gitanyow Wildlife and Food Security Management Plan (2017), with priorities around burning for berries and wildlife, and wildfire planning. The current BCWS initiative to engage with Gitanyow and provide funding and technical support has created momentum towards planning and capacity development, and helped Gitanyow leverage additional funding from the Federal Government and other sources. Dedicated funding towards fire stewardship planning has provided Gitanyow with some time and space to delve into the technical, social and cultural complexities of fire management in British Columbia. That said, there currently are major barriers to recreate the symbiotic relationship First Nations had with fire prior to colonization. The damage done by over 100 years of “fire” suppression will take many years to mitigate and this will require patience and a long-term commitment by the BCWS to achieve success.

In two short years, with the support of the BCWS, we have achieved some key milestones, including:

- Interviews with Chiefs and other knowledge holders about Gitanyow knowledge of cultural fire.
- Compilation of numerous spatial points, lines and areas relating to cultural infrastructure relevant to fire, Ansaan m’ay (ancestral huckleberry burning locations) and other areas of huckleberry occurrence.
- Extensive map inventories that overlay this information with biophysical/planning information such as forest type, land use plan layers, etc.
- Training of five members of the GLG program to the Type 2 Firefighter level.
- Conducted two small burns in conjunction with the BCWS in spring of 2023.
- Extensive field assessments of potential burn areas, which are now culminating in prescriptions that will lead to burn plans, which we intend to collaborate with BCWS on in 2024.
- Engagement with forest licensees operating on the Gitanyow Lax’yip to bring them into the fold and expand our fire stewardship capacity while improving huckleberry production and habitat enhancement, related to this is the reduction of fuel loading in cut blocks.
- **Perhaps most important is we have built many positive relationships with BCWS staff, specifically members of the Hazelton Rainmakers, and the benefits of this are immeasurable.**



The goals of the Gitanyow Fire Stewardship Program include:

- Revitalize fire management, a practice conducted throughout the Lax'yip for millennia.
- Increase capacity for conducting cultural burns alongside the establishment of a Gitanyow Initial Attack crew that is equipped and ready for fire suppression.
- Increase the knowledge and education level of Gitanyow people of fire, specifically youth.

Indigenous fire stewardship is a significant aspect of rebuilding collective capacities and leading wildfire response. In 2024, with the support of BCWS, we aim to conduct several cultural burns through the creation of Indigenous-led fire prescriptions. This will create

opportunities for land-based learning and increased fire line experience for Gitanyow people. The complex legal, bureaucratic, ecological and human resource factors that affect implementation of cultural burns are a hurdle that could prevent Gitanyow from conducting a level of burn implementation that we are all satisfied with. However, climate change demands a response and by incorporating cultural and technical information and communicating that information with spatial tools, we will support informed decisions on where and when to use cultural fire on the landscape. We are confident that with the continued support of the BCWS and other levels of government, we will clear these hurdles together, grow the Gitanyow Fire Stewardship Program, and provide a model for other Nations in B.C.”

- Gitanyow Fire Stewardship Program

In the southern half of B.C., more favourable burning conditions allowed BCWS staff to implement and support many successful cultural and prescribed burning projects. Across the Cariboo, Coastal, Kamloops and Southeast Fire Centres, 16 projects were implemented in spring 2023, many of which relied on close collaboration with local partners.





### Case Study: Simpchw Collaboration

“We worked with Simpcw to do about 30 hectares of prescribed burning in Chu Chua. This burn was a result of the strong relationship and collaboration that we have with the Simpcw. The burns were grass burns in and around the community. We worked with members of the Chu Chua Volunteer Fire Department as well as a few key members of the Simpcw Indigenous Initial Attack (IIA) Crew. Members of Kamloops Fire Zone Initial Attack crew, the Bighorns Unit Crew and some office staff participated in the burns as well.

Our relationship with Simpcw has grown over the years through the IIA crew and this burn was a great example of that growth, having the crews work closely together to be able to complete most of the goals set out for the burns. The success of this burn has opened more doors with Simpcw to look at future burning opportunities in the same area and expand the use of cultural and prescribed fire to help reduce wildfire risk in the community.

It was a great way to start the year working closely with Simpcw. It helped not only on the burning side but also having that face-to-face with the community and its members meant that when we saw them and talked on the phone throughout the wildfire season, the relationships were already there from collaborating on the prescribed fire at the start of the year.”

- Conlan Sprickerhoff, Wildfire Tech,  
Kamloops Fire Zone

### Case Study: Lytton (Lillooet Fire Zone) spring burning season

The spring burning season in the Lillooet Fire Zone was highly successful this year with four projects completed. These included partnerships with Lytton First Nation, Skuppah Indian Band, the Village of Lytton and the Cascade Forest District.

This was the first full spring burn season in the aftermath of the wildfire event of 2021 that caused the destruction of the majority of the Village of Lytton. This season’s prescribed burns were about the combination of cultural values and wildfire risk reduction, but even more so about the community becoming comfortable with the use of applied fire after the difficult aftermath of the Lytton Creek wildfire in 2021 and the Nohomin Creek wildfire of 2022. The collective apprehension of the greater community after the impacts of both these wildfire events cannot be overstated.

These were highly successful projects with treatment accomplished at the Lot 47 prescribed burn in the Botanie Valley (Lytton First Nation), Lytton Creek Gully (Lytton First Nation), Skuppah Indian Band and Village of Lytton/Cascade Forest District. These burns emphasized collaboration and partnership, and saw BCWS crews from Lytton, Lillooet and Salmon Arm working with Lytton First Nation and Lytton Fire Rescue resources on various projects. An intentional communications strategy, supported by the Lytton FireSmart Board, BCWS Communications and the communications departments of our partners, stressed the need for traditional fire to still be utilized in the community and generated significant public support for the re-introduction of applied fire in the greater community.

- Scott Rennick, Wildfire Officer, Vanjam Zone  
(formerly Wildfire Technician at the Lytton Base)

# THE WILDFIRE SEASON

In May, an early season heatwave delivered temperatures six to 10 degrees above normal. Rainfall amounts were considerably lower than historical norms, with some areas of B.C. receiving half of their average amount of precipitation. The exceptional summer-like conditions accelerated snow melt and the drying of fuels, making high-elevation areas snow-free and receptive to lightning two to four weeks earlier than usual.

In June and July, temperatures were significantly above historical averages. Many weather stations in B.C. recorded monthly temperatures in their top ten warmest ever recorded. In addition to the prolonged hot conditions, rainfall was very limited with only 20 to 60 per cent of normal rainfall being received.

Conditions through early August continued to pose a challenge. Between August 15 and 18, over 40 new temperature records were set. It was during this period that extreme heat and a strong wind event caused numerous wildfires to exhibit extreme fire behaviour and spread exponentially.





# FALL BURNING SEASON

September brought no reprieve for northern B.C., where conditions were persistently warm and dry, coupled with repeated cold front passages. Significantly increased wind speeds with shifting directions lasted over multiple days multiple times over the month. The wind events supported increased activity on long-standing fires across northern B.C. As a result, many BCWS staff were deployed to response throughout September and well into October.

This intense demand on staff and resources, combined with the cumulative fatigue of the intense 2023 wildfire season, impacted the fall burning season across the Province. In addition, there were only brief periods of suitable weather that would have allowed for the necessary site conditions to meet burn objectives during the fall of 2023. The combination of these factors made fall burning a challenge, with one project implemented.



# THE POWER OF PARTNERSHIPS

In total, five of the 23 implemented projects this year were delivered in partnership with First Nations, but implemented projects are only part of the story. The revitalization of cultural and prescribed fire in B.C. requires a partnership-based approach where the Province works alongside First Nations and local authorities to determine shared objectives, scope and plan projects, and monitor the outcomes of cultural and prescribed fire over time.

For example, this year in the Sea to Sky Resource District (Coastal Fire Centre), staff are working with the Squamish and Nquatqua Nations on Cultural Fire Scoping Assessments to identify areas within the traditional territory where the Nations remember burning and/or would like to burn in the future. The findings of these assessments will support collaborative identification of treatment units and the co-development of burn plans.

In the Boundary Zone (Southeast Fire Centre), the Kettle River Prescribed Burn benefitted from active engagement with First Nations. Members of the Penticton Indian Band and Osoyoos Indian Band were involved in both project preparation and implementation and will continue to be involved until all treatment units have been completed. These are just some of the ongoing projects where First Nations and BCWS are working collaboratively to restore the use of good fire in B.C.

**In 2023, more than 23 burn plans were developed or co-developed with First Nations.**

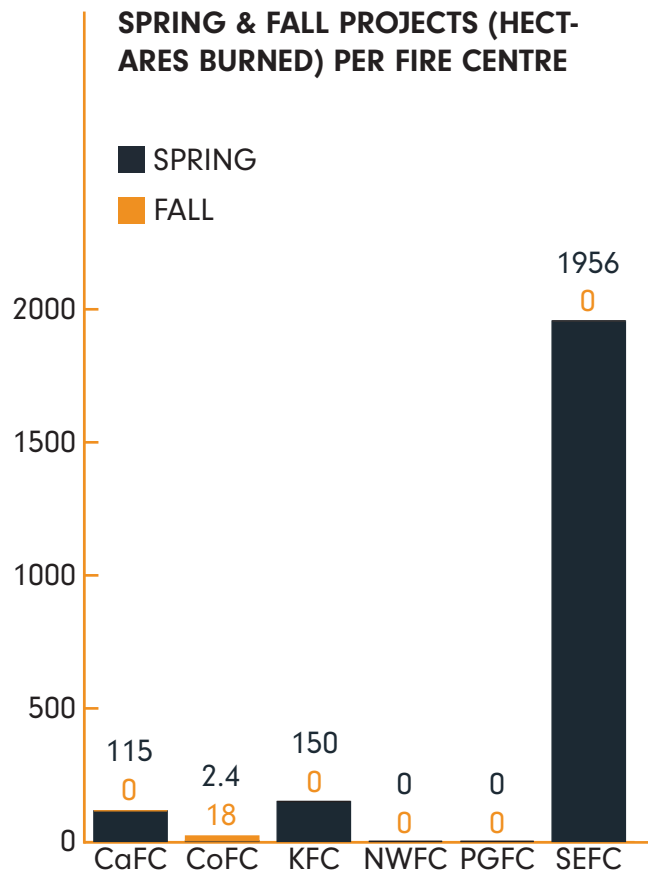
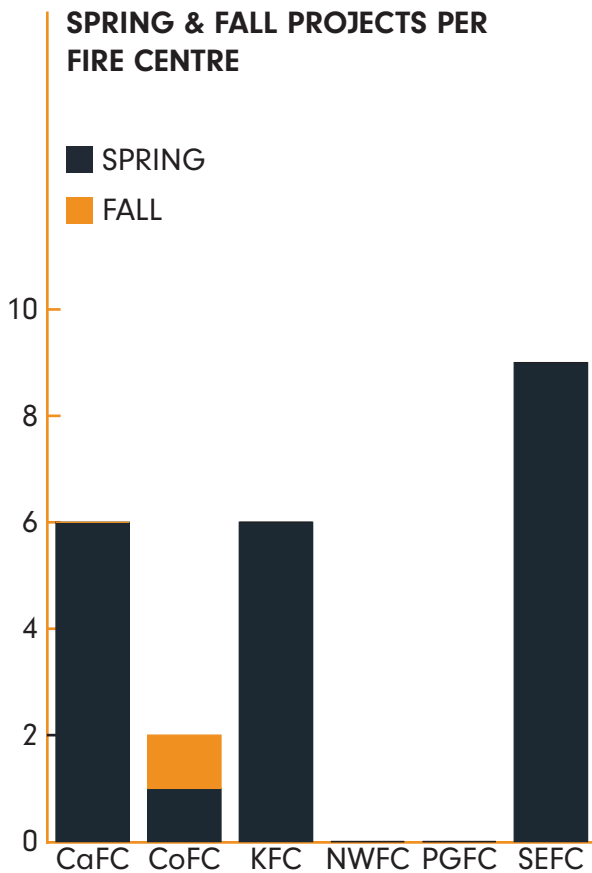




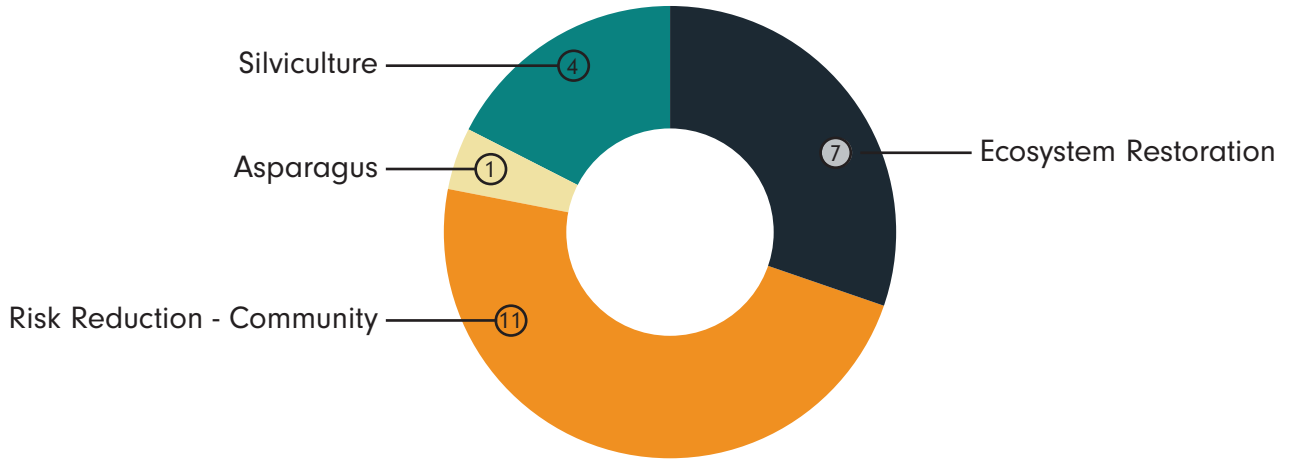
# THE NUMBERS

In 2023, 22 of 37 burning projects planned for the spring were implemented, covering a total of 2,223.4 hectares. One fall project was implemented for a total of 18 hectares. In total, 23 burning projects, covering 2,241.4 hectares were completed in 2023. There were 18 projects fully completed and five that were partially completed.

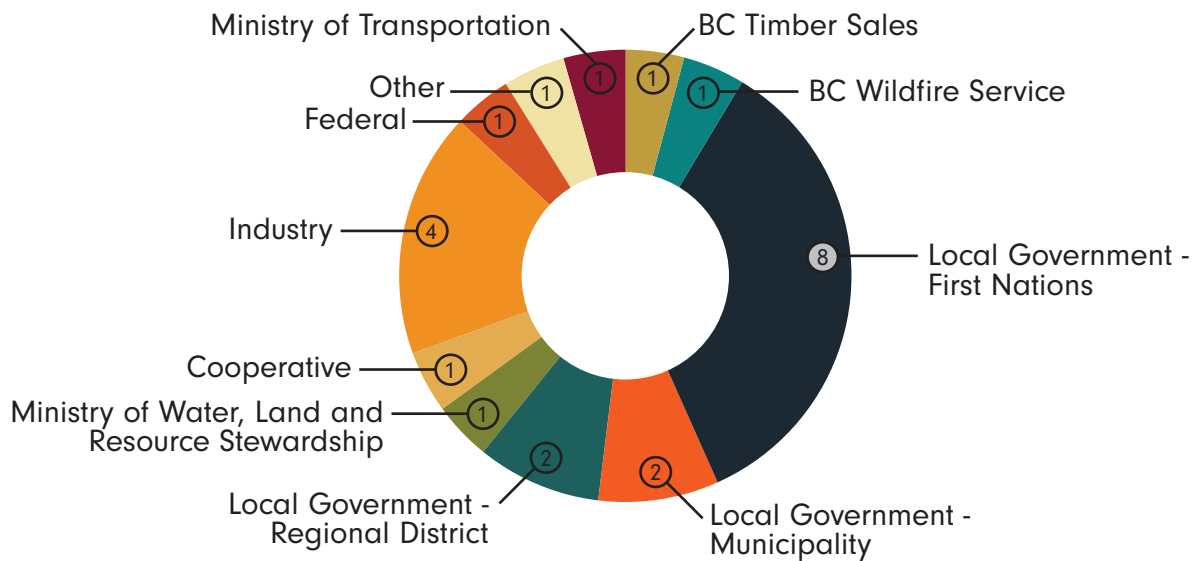
<b>CaFC</b>	Cariboo Fire Centre
<b>CoFC</b>	Coastal Fire Centre
<b>KFC</b>	Kamloops Fire Centre
<b>NWFC</b>	Northwest Fire Centre
<b>PGFC</b>	Prince George Fire Centre
<b>SEFC</b>	Southeast Fire Centre



**NUMBER OF C&RX FIRE PROJECTS PER PRIMARY MANAGEMENT OBJECTIVE**



**NUMBER OF C&RX FIRE PROJECTS PER PROPONENT TYPE**





# 2024 OUTLOOK

Despite the challenges posed by the 2023 wildfire season and related drought conditions, tangible progress was made towards the expanded use of cultural and prescribed fire in B.C. The number of hectares burned in 2023 exceeds the number in 2022, and the number of approved prescriptions and shelf-ready burn plans continues to grow. Crucially, work to build and strengthen local relationships and capacity is ongoing and remains a priority for the BCWS. There are 61 burns planned for 2024.

The BC Wildfire Service has heard and responded to feedback from partners who reported difficulty with the documentation required for burning projects. As we continue to ramp up the delivery of cultural and prescribed fire projects, BCWS is working to

co-develop a Prescribed Fire Training Exchange in B.C., and work continues to improve burn planning and documentation processes through direct communication and collaboration with local partners.

With the low precipitation and high drought codes in the northern half of the province stretching south through the Central Interior, forecasters warn that B.C. could experience conditions much like those that hampered project implementation in 2023. As we look ahead to 2024, working collaboratively with First Nations, local authorities, and other partners is more important than ever. In the years ahead, the continued expansion of cultural and prescribed fire is essential for improved wildfire resiliency and land stewardship, to ensure a vibrant B.C. for generations to come.

