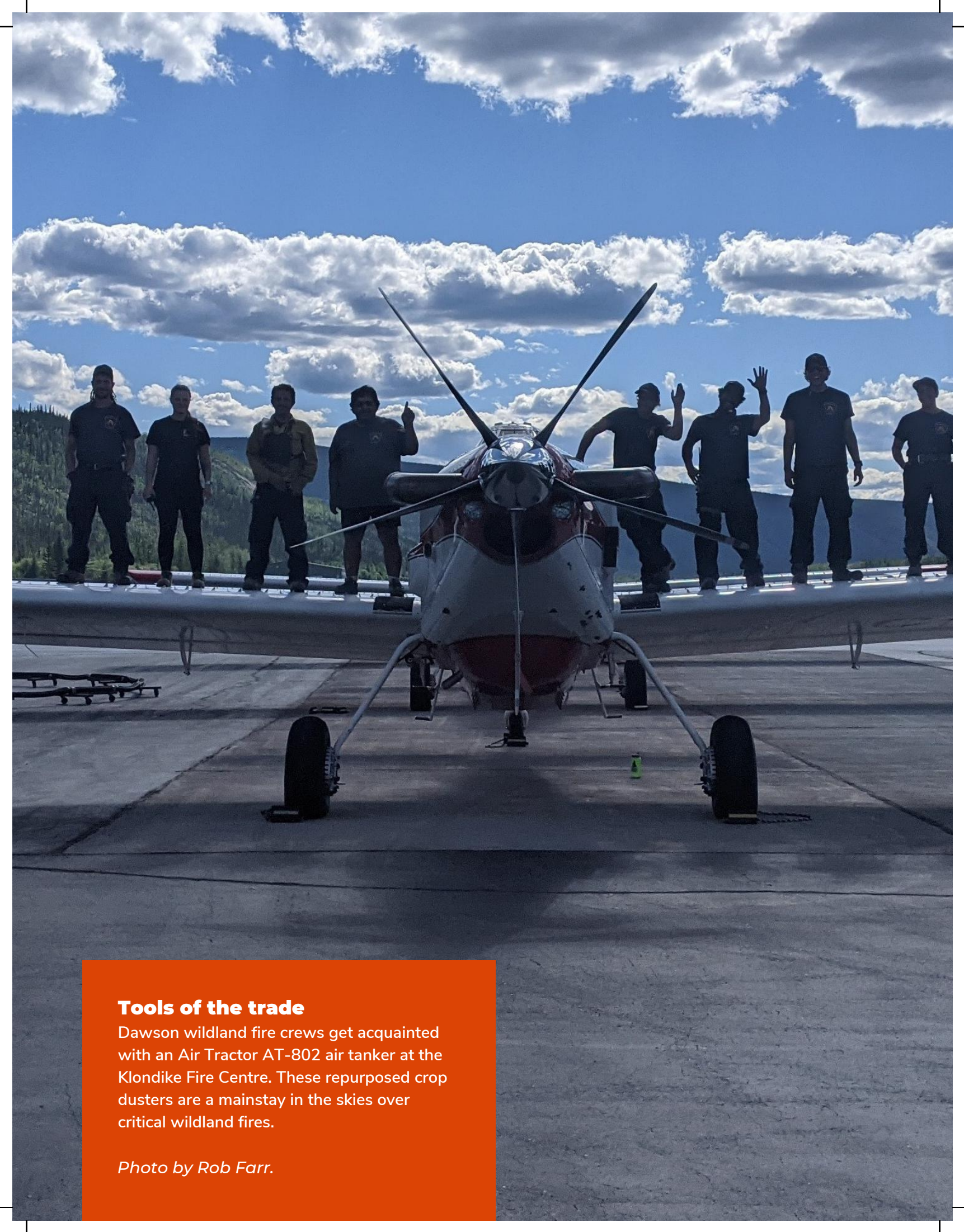


# Fireline

Yukon Wildland Fire Management's 2021 fire season in review



Yukon



### **Tools of the trade**

Dawson wildland fire crews get acquainted with an Air Tractor AT-802 air tanker at the Klondike Fire Centre. These repurposed crop dusters are a mainstay in the skies over critical wildland fires.

*Photo by Rob Farr.*

# Fireline



*Editor Julia Duchesne with contributing writers Mike Fancie and Emma MacDonald.*

Fireline is the Government of Yukon's Wildland Fire Management Branch annual magazine.

**Editor**  
Julia Duchesne

**Contributing Writers**  
Mike Fancie  
Emma MacDonald  
Kris Johnson

Follow Wildland Fire on social media through Yukon Protective Services and online at [Yukon.ca/Wildfires](http://Yukon.ca/Wildfires).

*Front cover photo: Ignition specialist Doug Cote leads an ignition operation on the Lake Laberge fire (XY-007) to protect historic sites at Hootalinqua. Photo by Keith Fickling.*

# From the Director's desk

Considering this extraordinary year, words cannot express the appreciation and respect I have for this team. In a busy Yukon wildfire season we felt added pressure from an historic flood event and the continued COVID-19 pandemic. During this season we mobilized and demobilized a vast amount of resources; developed and disseminated high quality information; successfully managed complex incidents; worked with our partnering agencies to coordinate and bolster resources; and made progress on the creation of wildfire resilient communities. In addition to Yukon priorities, we were able to help our neighbours through a CIFFC export to British Columbia.

The flood event of 2021 drew heavily on Wildland Fire Management resources to staff the incidents, provide financial and logistics support, and coordinate through our Yukon Duty Office. These demands did not affect our composure and competence, which is a testament to the dedication and professionalism of this team. As we develop unit work plans and a strategic branch plan, we aim to improve our capacity to respond to other incidents while facilitating the creation of fire-resilient communities and holding tight to our primary mandate to protect life, property and infrastructure from wildfire.

Thank you to each and every one who contributes to this organization. Thank you to our Fire Operations Joint Health and Safety Committee for their time and energy to provide us with the tools we need to have a safe working environment and establish a culture of safety at the workplace. I encourage everyone to be an advocate for the health and safety of their teams.

In a short amount of time I have seen that Wildland Fire Management staff are capable and skilled individuals who come together as an incredible team to face challenges and accomplish goals. Be proud of yourselves and your teams; I am. Your efforts are noticed and appreciated, and your legacy is a model of excellence for others who wish to be leaders in their teams and organizations.



Lisa Walker  
Director  
Wildland Fire Management





### **Ready to launch**

Initial-attack crewmember Riley Pettitt stands beside a Eurocopter AS250 helicopter at Wildland Fire Management's Southern Lakes Fire Centre.

*Photo by GBP Creative.*

# Features

## 2021 fire season in review 8

Learn about this year's fires by the numbers, how much the fire season cost, and where the notable fires burned.

## Shoulder-to-shoulder 14

Wildland Fire Management and 14 Yukon First Nations fight wildfire together.

## Summer of the flood 27

Wildland Fire crews stepped up across the places impacted by this summer's historic flooding.

## FROGS ahoy! 38

Fire FROGS are new, made-in-Yukon technology that safely measure fire growth.

## The FireSmart update 40

WFM works with local governments to make communities more resilient.

## Mike Sparks calls it a career 56

One of Wildland Fire Management's longest-serving staff is hanging up his boots after over 40 years in fire.

*The southwest flank of OC-002 on June 27, 2021. Photo by Emma MacDonald.*



## Tailgate talk

Trainee air attack officers take flight	16
Yukon First Nations Wildfire partnership develops future leaders	19
Wildland Fire on the web	20
75 years of wildfire management in the Yukon	22
Fighting fire in British Columbia	23
A timeline of wildland fire management in the Yukon	30
Summer photo contest winners	32
Modelling fire risk with Yukon University	34
New Emergency Response Officer program steps up	36
2021 wildfire crew and staff photos	47
Protecting Whitehorse from wildfire	54
Smokey Bear goes to school	60
Fox watch	62

*Right: Yukon initial-attack crews on their way to the Garrison Lake fireline during operations in British Columbia.*

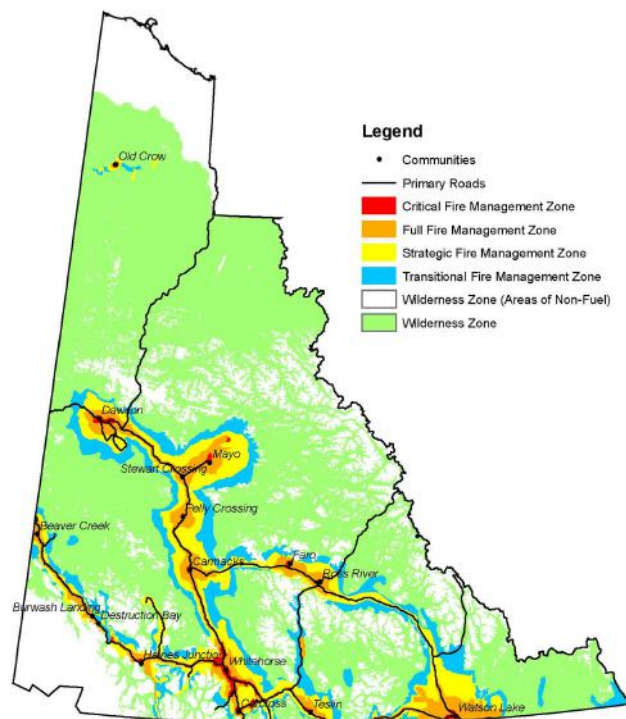


# 2021 fire season in review

## Fires by zone

Fire Management Zones subdivide the Yukon into five zones: Critical, Full, Strategic, Transitional, and Wilderness. Typically, fires closer to the Critical zone are a higher priority for suppression. Whenever possible, fires in or near the Wilderness zone are allowed to fulfill their natural role in the boreal forest. That's why more than 99 percent of the hectares that burned this year were in the Strategic, Transitional and Wilderness zones.

Response zone	Area burned (hectares)	Percent of the total burned area
1 - Critical	0.6	0.0005
2 - Full	1.5	0.001
3 - Strategic	21,776	18
4 - Transitional	24,317	21
5 - Wilderness	72,031	61
<b>Total</b>	<b>118,126</b>	



## Fires by district and area

This year, a total of 112 fires burned in the Yukon's 10 fire districts. The total area burned was 118,126 hectares. Dawson and Mayo districts in central Yukon had the most fires, with 27 and 19 fires respectively. The district with the most hectares burned was the Old Crow district.

Region	District	Number of fires	Area burned (hectares)
Klondike	Dawson	27	10,047
	Old Crow	8	48,449
Kluane	Beaver Creek	3	226
	Haines Junction	7	36
Southern Lakes	Teslin	2	375
	Whitehorse	12	5,214
Northern Tutchone	Mayo	19	16,495
Tatchun	Carmacks	12	18,104
	Ross River	12	1,262
Tintina	Watson Lake	10	17,918
<b>Yukon</b>		<b>112</b>	<b>118,126</b>

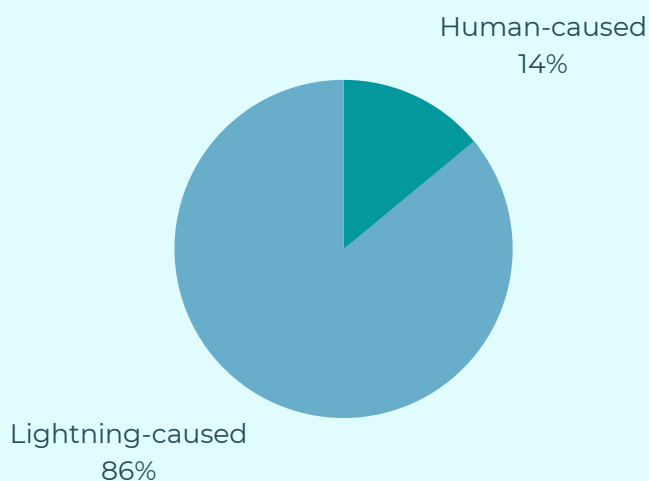
### What's a hectare?

A land measurement unit equal to a square with 100-metre sides. That's just over 6 NHL hockey rinks. There are 100 hectares in 1 square kilometre.



## We didn't start the fires

Typically, about two-thirds of Yukon fires are started naturally by lightning, and one-third by humans. This year, an even higher percentage than usual started by lightning.



*Duran Simon examining the behaviour of CA-005 on July 27, 2021. Photo by Pete Dayman.*

## Fire costs

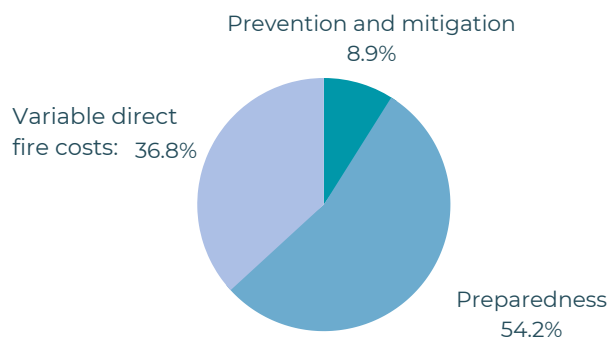
This year, Wildland Fire Management adopted a new budget structure. In the past, budgets were broken into costs for FireSmart, Pre-suppression, and Suppression work. With the new structure, categories are clearly split between fixed and variable cost activities. Here's the new breakdown:

- **Prevention and mitigation:** These are the costs associated with reducing community wildfire hazard, including the FireSmart program, Yukon government-led large scale projects, and implementing Community Wildfire Protection Plans.
- **Preparedness:** These are day-to-day operational costs, including employee salaries and readiness costs such as annual air-attack contracts.
- **Variable direct fire costs:** These are the costs spent actually fighting fires.

## 2021-22 budget forecast

Here's the forecast budget for 2021/22 – it's a forecast because our year isn't yet over, although fire season has ended. Note that our direct fire costs this year included the cost of the flood response.

- **Prevention and mitigation:** \$2,737,886
- **Preparedness:** \$16,608,938
- **Variable direct fire costs:** \$11,274,485 (of which \$7,677,924 is the flood response costs)





# Notable fires of 2021

## Lake Laberge (XY-007)

---

Cause: Lightning  
Start date: July 5  
Size: 5,025 hectares

Burning 10 kilometres northeast of Lake Laberge, this fire had a smoke column that was visible from the Whitehorse area. The fire burned northeast along the Thirty Mile stretch of the Yukon River towards Hootalinqua.

Hootalinqua is a cultural and historic site at the confluence of the Thirty Mile and the Teslin River. Crews put structure protection in place on the parts of the site that were not already underwater due to Yukon River flooding. Sprinkler systems and pumps were installed on historic cabins and some forest fuel was removed around the site.

At the fire's height, we recommended that paddlers avoid the affected stretches of the Yukon and Teslin rivers. The fire soon took enough rain that the warning was lifted. Instead, we asked travellers to use caution en route and not stop in burned areas. We predict this will be a morel-picking hotspot next summer!

*Top photo by Brandon Smith. Middle and bottom photos by Keith Fickling.*

# Coal Creek (DA-024)

---

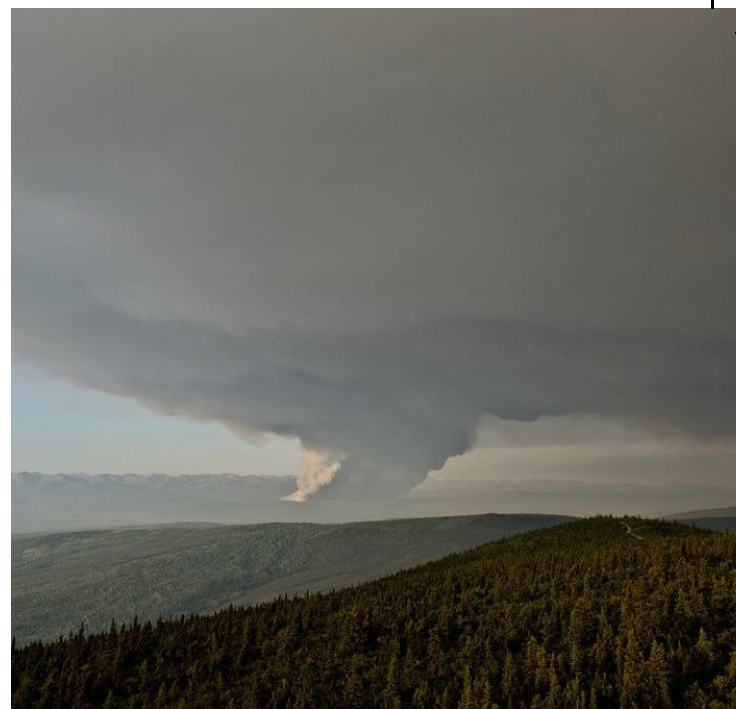
Cause: Lightning  
Start date: July 21  
Size: 7,109 hectares

The Coal Creek fire caused a stir in Dawson this August. After burning quietly in the transitional zone for several weeks, this fire woke up in a big way on August 2. Taking advantage of hot, dry weather, the fire took a six-kilometre run southwards in one evening, putting it 7 kilometres from the Dawson subdivisions of Henderson Corner and Rock Creek and about 10 kilometres west of the Dempster Highway.

The following day, with a similar forecast predicted, the Emergency Measures Organization issued an evacuation alert for the two neighbourhoods, the Dawson Airport, and properties along the North Klondike Highway. Crews from Dawson and across the Yukon leaped into action, working with local fire departments to set up structure protection on vulnerable farms, lodges, and houses. The fire measured about 6,500 hectares at the time.

Thankfully, the worst didn't come to pass. The fire took some well-timed rain on August 3 and then settled into a slow burn east and northwestwards for several days. Crews put in a cutline north of the Klondike River, marshalled mobile water cannons, and set up miles of sprinkler systems. The evacuation alert was in place for nearly a week before the fire was tamed by more than 50 millimetres of rain falling over a few days. Thanks to the Klondike Valley and Dawson City fire departments, local volunteer fire departments, Tr'ondëk Hwëch'in, and the City of Dawson for working together on this fire response.

*Top photo by Markus Lenzin. Middle photo by Joaquin McWatters. Bottom photo by Lisa Walker.*





# Ta'tla Mun & Ptarmigan Mtn. (CA-005 & CA-007)

---

Cause: Lightning

Start date: July 19 & 20

Size: 9,375 hectares & 4,142 hectares

The Ta'tla Mun (CA-005) and Ptarmigan Mountain (CA-007) fires put a lot of smoke into the skies over Pelly Crossing and the North Klondike Highway in July. The larger fire burned right to the shores of Ta'tla Mun, an important lake for Selkirk First Nation.

Crews worked diligently to protect the historic cultural site at Ta'tla Mun, clearing out forest fuels and setting up structure protection on buildings. The lake itself helped by acting as a natural barrier to the fire. Crews also worked hard to protect a drilling camp between the lake and the highway.

Ultimately, both fires burned to the end of the season without harming any people, buildings or infrastructure.

*Top photo: CA-005. Middle and bottom photos of CA-005 by Kris Johnson.*



# Notable fires of 2021



## **Tuchitua (WL-007)**

Ignited by lightning on July 6, this fire occurred 10 kilometres west of the Robert Campbell highway near the Nahanni Range Road junction.

It soon moved east, and crews put structure protection in place for cabins near the junction. The highway was closed for several days before the fire quieted down with cooler weather in late July.



## **Clear Creek (MA-003)**

This 10,600-hectare fire ignited June 19 south of the Clear Creek road between Mayo and Dawson. Crews protected farms and mining camps in the area with sprinkler systems and ignition operations.

By August, Mayo 3 had merged with the Mayo 11 fire to create one large fire. The fire burned until the onset of snowy fall weather without damaging any buildings or infrastructure.



## **Johnson Creek (OC-002)**

The biggest fire of the summer was Old Crow fire 2, located 42 kilometres southeast of Old Crow. Measured at 21,279 hectares, this lightning-caused fire burned from June 24 onwards.

Under 24-hour sunlight, this fire often displayed aggressive behaviour. The fire burned until the September snows but quieted significantly in August.



# Shoulder-to-shoulder

Wildland Fire Management and 14 Yukon First Nations fight wildfires together

*This article was first published in Pathways, a Government of Yukon publication highlighting stories of collaboration, partnership and reconciliation in the Yukon.*

Through Wildland Fire Management branch, the Government of Yukon has fully integrated Yukon's First Nations into how it manages wildfires. 14 of the Yukon government's 25 initial-attack wildfire crews are hired through contracts with First Nations or their development corporations, while a progressive fire response policy mandates protecting people and property while preserving fire's place in the wilderness.

Some of the government's initial-attack contracts predate the 1990 Umbrella Final Agreement (UFA) and the devolution of fighting fires from the federal government in 2003. Earlier this year, the government finalized its initial-attack crew agreement with the White River First Nation, ensuring that all 14 First Nations are represented among the government's initial-attack program.

Dave Trudeau is Wildland Fire Management's Regional Protection Manager in the Northern Tutchone fire management region and hails from the Wiikwemikoong Unceded Territory. Dave was first recruited to fight fire in 1998 as a short-term Emergency Fire Fighter. His

brother Gerry, who was a member of the Selkirk First Nation's elite Pelly Fire-Head Hunters fire crew, facilitated his brother's recruitment to fight the Haines Junction 'Beetle Burnout', a major fire that was made more intense by a spruce beetle infestation that killed entire forest stands. "I established a bit of a reputation at the Beetle Burnout because I found my passion," Dave says with pride. "I had a lot of bush skills. I was a professional chainsaw operator and people noticed me." In 2000, "the Selkirk First Nation tracked [him] down" and recruited him to the Fire-Head Hunters – where he eventually served two years as a crewmember, then three more as its crew leader.

Since rising through the ranks, Dave has seen government firefighters and First Nations contract crews work shoulder-to-shoulder in common purpose. He says it's very simple: "if you're going to fight fire, then you're going to go fight fire. When everybody's in Nomex, nothing else matters."

Wildland Fire Management's collaboration with First Nation governments has evolved

beyond implementing the UFA into full-on reconciliation. In the lead-up to devolution, wildfire officials consulted with First Nation governments to develop a territorial fire management policy that uses zones to determine how aggressively fires are fought.

Mike Sparks was a federal Resource Management Officer who helped develop the policy:

“When we did the consultation, we visited all 14 First Nations and discussed the process with them. We did a tour to every First Nation and asked people which areas needed protection. We drafted a series of maps, then presented them back to the community.”



A firefighter employed by Yukon First Nations Wildfire carries a hose bag during a training scenario in May 2021. Photo: Mike Fancie.



An Emergency Fire Fighter crew receives a briefing in 1998.

First Nations engagement in the policy’s development led to some unique results. In Old Crow, residents flagged the Porcupine River for more forceful fire suppression because residents use the river and its tributaries extensively. As a result of meaningfully including the community, wildfire officers can make more relevant decisions about how to protect the community.

Finalized in 2003, Yukon’s fire management policy remains a progressive document in a professional community that continues to evolve past a suppression-focused mentality. Thanks to the policy, Yukon maintains a better balance between public safety and preserving fire’s role in the forest.

As Wildland Fire Management grows, it continues to hone its relationships with Yukon’s First Nations. It maintains a strong relationship with Yukon First Nations Wildfire Limited Partnership, an organization that provides valuable services like wildfire suppression crews and administers some First Nation development corporations’ initial-attack contracts. The FireSmart program also creates countless opportunities for First Nation governments to make their Traditional Territories more resilient to wildfires while having the chance to employ local forestry technicians. 🔥

# Firefighting aloft

## Two trainee air attack officers take flight

The air attack team had a busy summer in the Yukon and beyond. For Airtanker Program Supervisor Chris Boland, the best thing about 2021 was the chance to pass on his knowledge. For the first time in a decade, the air attack team welcomed two trainee officers.

Air attack officers fly in small “bird dog” planes to guide air tankers as they drop water or suppressant over fires. Officer certification is a three-level process. Levels 1 and 2 involve theory, cockpit procedures, and getting to know the aircraft. In Level 3, trainees take on a front-seat role.

Ted MacDonald and Tom Hutchings are this year’s trainee officers. “Both of the trainees got a lot of exposure this year,” says Boland, who completed his 20th season as an air attack officer this year.

The team responded to 14 Yukon fires this summer, giving the trainees crucial experience coordinating air tanker action. This year, WFM’s aerial resources included two contract tanker groups: one group



*Tom Hutchings and Steve Janzen debrief a training flight at Revelstoke airport.*

included a bird dog and three intermediate-sized 802 tankers, and the other included a bird dog and a heavy 3000-gallon L-188 Electra tanker. Along with the trainees, Boland, and Air Attack Officer Walter Nehring, three contract officers from B.C. and Alberta rounded out the team.

Trainee officer Tom Hutchings accompanied one group south for a 14-day deployment fighting B.C.’s extreme fires. They actioned a major fire in Sicamous and others near Vernon, Golden, and in the Cariboo region





before heavy smoke grounded them in their second week of deployment.

While that group was in B.C., the remaining group worked all the priority fires in the territory. At one point, the highest priority initial attack fire required more tanker action than one group could provide. Neighbouring Alaska provided support with a next-generation Q400 tanker from Palmer and an Aerial Safety Module (an Alaskan bird dog) from Fairbanks. This combined effort continues a long history of

**“It was kind of interesting sitting in the back, [to] be watching a next-generation air attack officer doing the bird-dogging and running the action.”**

**Chris Boland,  
Airtanker Program  
Supervisor**

cross-border resource sharing.

Trainee officer Ted MacDonald was in the front seat, coordinating the Yukon air tanker’s action alongside the Alaskans. Boland, his training officer that day, remembers the moment as a glimpse of the future. “It was kind of interesting sitting in the back, from my perspective,” he says. “To see this next-generation air tanker aircraft coming to the Yukon, and be watching a next-generation air attack officer doing the bird-dogging and running the action.” With Alaska’s assistance, the air attack team held the fire for successful ground crew suppression action.

For his part, MacDonald found the cross-border experience “really neat”. “Just seeing the amount of work that goes in, from the duty officers to the YDO and everything that goes on in the background, to all of a sudden a plane shows up and I have more tools at my disposal to help contain fires,” he says. “It was really amazing to see it all come together.” 🔥

# Trainee officers in their own words



*Ted MacDonald at the Dawson Air Tanker Base.*

## Ted MacDonald

### **Paying it forward:**

“I had heard Chris and Walter from below, and I always found them to be a reassuring voice in the sky when I was wandering around on the ground. I just tried to learn as much as I can from them, and try to match them in some small way, and maybe be that voice of guidance ... to the next generation of guys.”

### **Learning on the fly:**

“Learning something new, several new things, almost every single day... [Air attack is] very fast-paced, very low room for error, and a very demanding work environment that challenges the best of us.”

## Tom Hutchings

### **Air attack training:**

“The training is pretty involved. Training time is expensive, and you need to make sure you show up prepared. There’s not a lot of do-overs. You need to make every minute in the aircraft count.”

### **Learning from the best:**

“I felt very fortunate to train under such experienced Air Attack Officers in Walter and Chris. And because there were a few contract air officers from Alberta and B.C. up as well, it gave us a good opportunity to see how other jurisdictions work.”

### **B.C. highs and lows:**

“At first it was great. We were super busy, we bombed on multiple fires. And then the second week, like most other aviation resources, we were pretty buttoned down due to low visibility. We couldn’t even fly for the last six days.”



YFNW unit crew firefighters take part in a Wildland Fire-led training exercise this spring. Photo: Mike Fancie.

# Yukon First Nations Wildfire partnership develops future leaders

In 2021, Wildland Fire Management continued to strengthen our relationship with Yukon First Nations Wildfire (YFNW) by engaging them to do more emergency response and hazard reduction work than ever before. As a unique local provider of firefighting resources whose staff and leadership team are primarily Indigenous, this partnership is an important step in the Government of Yukon's reconciliation process.

This year, YFNW was hired to do wildfire suppression work in Yukon and in British Columbia, provide labourers during this summer's flood response, and implement FireSmart contracts near Yukon communities. We invested over \$1.1 million in YFNW to provide these services and to develop their

crews skills. Building on a partnership that is several years old, we continue to provide training resources and other capacity-development opportunities not normally available to the public to support YFNW's ongoing success. As a result, this relationship supports Wildland Fire Management's provision of critical services to our communities and valuable opportunities for young Indigenous people to develop their skills.

## YFNW funding by the numbers

- Southern Lakes flood response: \$712,506
- Wildfire risk reduction contracts: \$137,766
- Unit crew deployment to British Columbia: \$133,000
- Unit crew deployment to Dawson: \$83,946
- Annual Beat the Heat support: \$50,000 🔥

# WFM on the web

Wildland Fire Management shares information through the Yukon Protective Services social media accounts. With 10,357 followers, the Yukon Protective Services Facebook page is one of the largest in the government's digital ecosystem, second only to the main Government of Yukon page.


## By the numbers

Yukon Protective Services Facebook posts received tens of thousands of reactions, shares and comments this summer. In general, posts related to wildfire activity had the highest engagement. Here are some stats from May to September, 2021:

- 29,000 reactions
- 6,200 shares
- 4,500 comments

Our top post this summer was a dramatic video of the Lake Laberge fire. Kudos to crewleader Brandon Smith for taking the initiative to capture all sides of this major fire while on a helicopter overflight. The video was viewed as far away as California and Australia!

- 72,700 individuals reached
- 14,800 post clicks
- 4,300 reactions, comments and shares

Other popular posts included photos of our firefighters flying south to help with the B.C. fires, and an evacuation alert issued for the Coal Creek fire near Dawson. 







# Wildland Fire Management celebrates 75 years

Assistant Deputy Minister of Protective Services Damien Burns reflects on what's changed — and what hasn't — over the years.

This year marks 75 years of the Yukon's wildfire agency, in its many forms. We've come a long way since 1946. The branch has been in constant innovation to meet the unique challenges of fighting forest fires in the Yukon.

I have been fortunate to have been involved with this agency for over 20 years. My own experience began in the late 90s as an extra firefighter, then as an initial-attack crew member in Ross River and Dawson. These were formative years in my life, and I will always remember the lessons taught to me by some of the hardest working and dedicated public servants I have ever encountered. We took great pride in working hard to deliver world-class fire suppression services, often with limited resources. This attitude and excellence still prevails in our operations.

My time as the director of Wildland Fire Management, from 2018 to 2020, represents a highlight of my public service career. I had the unique opportunity to see the branch's mandate expand and adapt to a changing global climate and an increasing Yukon population. Today, Wildland Fire Management protects life, property and critical infrastructure from wildfire while facilitating the creation of fire-resilient Yukon communities. In doing these things, they are world leaders in innovative fire management. As the organization continues to grow, it will be important to remember that much of this proud

fire management innovation is borne directly from the historic and traditional knowledge passed down to us from the zonation policy developed by the government and our First Nation partners during devolution. This process forged strong government-to-government relationships that endure in many aspects of Wildland Fire Management's work.

The zonation policy is a modern approach to fire management. It allows most remote forest fires to fulfill their natural process. However, fire suppression near Yukon communities has prevented that process from taking place, resulting in denser fuels. Wildland Fire Management's nation-leading prevention and mitigation and FireSmart programs manage this risk and create wildfire-resilient communities with support from additional funding dedicated to developing landscape-level fuel treatments.

It is very clear when I attend meetings of other Canadian agencies that Wildland Fire Management is a highly regarded agency that does more than its share at the national level. This hard work is done by each staff member, in each role, in each region. You should all be very proud of the work you do and the example you set. I am proud of the small role I play on this team. Congratulations on this 75th anniversary! 🔥

# Fighting fire in British Columbia

## Answering the call to help our neighbours

Yukoners headed south this August to fight fires in British Columbia as the province battled a record-breaking wildfire season. Wildland Fire Management sent 40 firefighters and 8 overhead staff to support the B.C. Wildfire Service's ongoing wildfire response.

Personnel deployed to B.C. included Wildland Fire Management's own crews as well as Yukon First Nations Wildfire crews contracted to WFM. They got a lift on the journey south thanks to 435 Squadron Royal Canadian Air Force.

In B.C., crews worked on the Garrison Lake fire

near Princeton, the White Rock Lake fire west of Vernon, and the Mt. Law fire in West Kelowna. They learned about fighting large, complex fires and worked alongside firefighters from across Canada and beyond.

In July, a Yukon air tanker group deployed to Revelstoke for 14 days to help with aerial suppression. The air tanker group included three Air Tractor AT-802 aircraft, a bird dog plane, pilots, an air attack officer and an air attack officer trainee. Read more about our air attack team on page 16.



**“Any opportunity we can take to help our fellow firefighters and friends and neighbours in the south there, I would jump on.**

**It’s ... something that definitely gets in the blood, and once it’s in there, you can’t say no.”**

Hyder Bos-Jabbar,  
Safety & Training Manager  
(CBC interview)



Previous page: notes of appreciation in town.  
Top: firefighters board a Royal Canadian Air Force C-130J Hercules bound for Kamloops, BC.  
Middle: burned-over forest at the White Rock Lake fire.  
Bottom: Yukon firefighters assigned to the Mount Law fire.





## CBC's Leonard Linklater interviewed Safety and Training Manager Hyder Bos-Jabbar and Initial Attack Crewmember Sam Connolly about their time in B.C.

Here are some highlights from their conversation on *Midday Cafe*:

Hyder Bos-Jabbar was a Division Supervisor in B.C., responsible for 100+ people on the White Rock Lake fire. "In the Yukon, we really have never had a fire that required hundreds of people on it," he told Linklater. The B.C. fires were more complex than most Yukon fires, with more houses and infrastructure affected, and many more firefighters involved. In his 22,000 hectare division of the White Rock Lake fire, dozens of houses and vehicles were burned. He was responsible for firefighters from Quebec, Alberta, and B.C. His main concern? Ensuring that first responders could do their jobs safely, and come home safe. "Houses can be rebuilt, but lives can't," he said. "We always take that as our number one consideration."

They encountered some tension; people lost their homes to the wildfires, adding to existing stresses about COVID-19 in the B.C. interior. "The absolute support that we received from the community kind of cut that tension," said Bos-Jabbar. Firefighters were greeted by signs, cheering crowds, and little kids dressed up as firefighters. "It's something that I'll cherish for the rest of my life."

Bos-Jabbar said that working on, and learning from, such complex fires is an invaluable opportunity for Yukon crews and officers. "With climate change, we are going to see more and more of these fires that are growing close to communities," he said. "One day, we may be in a very similar position, and we'll be leaning heavily on those individuals who have the experience."

Sam Connolly is in his second season with WFM. In B.C., he fought the Mt. Law fire in West Kelowna. "I very rarely had dealt with anything that big. Normally, out here, I'm part of a small IA crew. We're used to just jumping in and out of helicopters in the middle of the gold fields with chainsaws on our back, crushing a new start fire within a couple hours, heading back to base, and gearing up for the next one," he said. "This is a whole different ballgame."

On the Mt. Law fire, his crew swept the fire's edge looking for spot fires caused by wayward embers. "They were constantly popping up, and sometimes really close to people's homes," he said. In the Yukon, the threat isn't usually so close. "We felt the heat – quite literally sometimes. But we were always in a safe place. We never felt like we were being put in harm's way."

Despite the proximity and size of the fire, Connolly kept his cool. "It's a little bit stressful, but also, I'm not alone. There was such brilliant leadership there, and I felt such excellent camaraderie and excellent communication with the crews I was working with," he said. "I always felt that we were going to get the job done."

He added: "It was less stressful than having to get out of a hovering helicopter for the first time." 🔥



### **Smoke sentinels**

High in the air above the Yukon, fire lookouts spend their summers scanning the horizon for signs of blazes like the Coal Creek fire (DA-024), seen here from the Dawson lookout tower.

*Photo by Markus Lenzin.*

# Summer of the flood

## All hands on deck for an historic flood season

If the 2020 fire season was defined by historic rainfall, the beginning of the 2021 fire season will be remembered for the downstream consequences of that rain and the 2020 winter's snowfall. Come spring, the above-average snowpack melted into the Yukon River watershed, causing high water warnings in communities from Teslin to Lake Laberge. In Carmacks, high water on several local Yukon River tributaries had the same consequences.

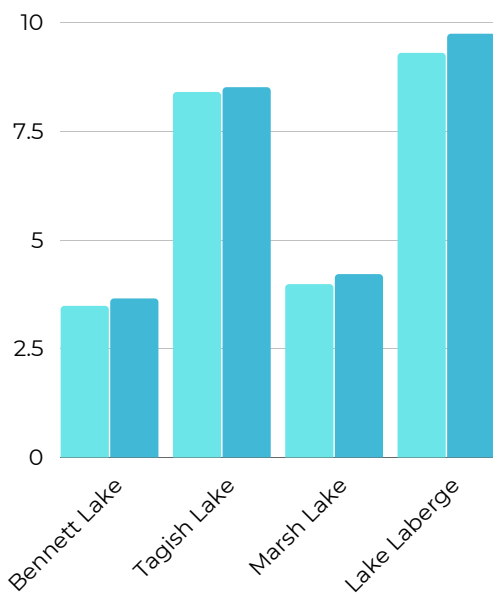
These communities all faced record high-water levels this summer. 2021 water levels even surpassed the measurements taken during the major flooding of 2007.

Yukoners from all corners of the government and the community mobilized to respond to the floods. Thanks to its expertise managing complex public safety incidents through the Incident Command System (ICS), Wildland Fire Management branch was tasked with providing incident management teams as well as front-line responders for the responses in Carmacks and the Southern Lakes area.

*This page and facing page: WFM crews laying sandbags and berms along River Drive in Carmacks. Photos by Julia Duchesne.*

Incident management teams provide a comprehensive structure for planning, implementing and supporting a response. In the Southern Lakes area, Wildland Fire Management staff coordinated a response involving several hundred responders and support staff from the Yukon government, the Canadian Armed Forces, Canada Task Force 2, the Manitoba government, and local governments. At the time of writing, Wildland Fire Management staff continue to manage the response to water emergencies related to the flooding.

**Peak high water levels in 2007 and 2021, in metres**



*Note: In 2007, water level data was not collected in Carmacks.*

The flood response and the ongoing COVID-19 pandemic, combined with wildfire incidents, made summer operations more complex. This increased complexity sparked the expansion of the Yukon Fire Centre's Operations Centre, led by Wildland Fire Management's Yukon Duty Officer, into a fully-fledged team-based environment.

Using the same ICS principles that allow an incident commander to expand or draw down their team based on an incident's complexity, the Operations Centre supported the duty officer with a full slate of command-level staff. These leaders supported Regional Protection Managers and Incident Commanders by providing services above and beyond normal Operations Centre responsibilities, including:

- Wildland fire behaviour prediction
- Crew and Incident Management Team availability and time-out tracking
- Triage of incident-level resource requests
- Development and management of a temporary forward-attack base in central Yukon

In future fire seasons, Wildland Fire Management is looking forward to applying the lessons learned from a more complex year to its normal slate of operations. We will also be working with other Yukon government teams to improve the coordinated response to incidents such as floods and the COVID-19 pandemic. 🔥





### **Working the line**

In 2017, Yukon firefighters were sent south to British Columbia to help with increased fire load in that province. This summer, Yukoners were again dispatched to help in BC.

*Photo by Derek Wolfe.*



# The 'Awful Splendour' of wildland fire response

This year WFM celebrated its 75th year in the making. We took a look at the organization throughout the years.

Here's a look back at the early days of the Yukon's fire history, drawn from Stephen J. Pyne's 2007 book *Awful Splendour: A Fire History of Canada*, a comprehensive review of fire and firefighting in Canada.

## 1897-1940s

Fire has been part of the Yukon landscape since time immemorial, but colonization brought increased fire activity to the Yukon. Klondike Gold Rush stampeders caused frequent fires along the Yukon River, in Dawson City, and in the goldfields. Dawson got a fire brigade by 1898, but the Yukon didn't have a wildfire agency for another half-century, when a Forest Protective Service was established to combat the fires springing up along the new Alaska Highway. The agency was US-controlled until 1946, when authority transferred to Canada.

## 1950s

The Whitehorse-based federal agency ran highway patrols and roadside prevention programs as well as fighting fire, but its firefighting capacity was soon tested. In 1958, "the worst fire season in living memory," 100 fires burned over 728,000 hectares of the Yukon. Two major fires, propelled by 40 mph winds, threatened Whitehorse itself. In response,

authorities boosted the fire agency's size and staffing.

## 1960s

The agency took over aerial reconnaissance duties from the RCAF in 1961. Helicopters arrived in 1963 and two Snow Commander tankers followed in 1968. Soon, the agency realized it could not fight every fire and established protected zones covering a quarter of the Yukon. But in 1969, another bad fire season, 111 fires burned over 368,000 hectares in the protected zone alone. Faro was completely destroyed, Pelly Crossing and Crestview were evacuated, and smoke darkened the skies.

## 1970s

The agency, by then known as the Yukon Lands and Forest Service (YLFS), had a central dispatcher and a territorial fire control officer; ten lookout towers; nine helicopters, two patrol planes, a contract smokejumper crew, two A-26 airtankers plus a lead plane, and a contract tanker; and five air bases.

Then-Superintendent Edo Nyland called the YLFS a "modern, however small, fire fighting organization," quotes Pyne.



Unlike other jurisdictions, which needed to protect significant backcountry resources (like timber blocks), the Yukon has always focused its firefighting efforts on highways and communities. “It devised sharper, more precise techniques to achieve that goal, replacing the blunt-force methods favoured by the major provincial fire powers,” writes Pyne.

One technique borrowed from Australia and perfected in the Yukon was aerial ignition. Nyland believed that, with a small staff and vast lands to protect, aerial ignition was “far more desirable” than bulldozers and “far cheaper” than airtankers and helicopter attacks. The YLFS worked with the Canadian

Forest Service to improve aerial ignition so it could ignite backfires quickly and safely. While aerial ignition didn’t begin here, writes Pyne, the Yukon offered its “first practical application as a fire control tool.”

### 1980s

The agency continued to modernize, introducing an automated lightning detection network. The agency’s budget increased as the Yukon moved towards devolution, but the challenge for Yukon firefighting remained: how best to protect communities nestled within the boreal forest, where fire is part of life. 🔥



For the first time this summer, WFM ran a photo contest for fire staff. Crews, crew leaders and fire centre staff submitted photos to the monthly contest. Each month's winner received a prize like a bear spray belt or Aeropress coffee maker.

This contest was a great way to see fires through the eyes of firefighters. Fire staff from across the territory submitted excellent photos, making it hard to choose a winner each month.

Here are the winning photos for the months of May, June, and July, plus the season winner.

# Photo contest



Top left: Derek Crowe's black and white photo of a 2017 BC export won May's contest.

Bottom left: Rob Farr won the June contest with this photo of Eagle, White River, Taiga, and Tombstone crews, plus Logistics 4 & Dawson 5, atop an AT-802 air tanker.





## winners

Top right: Alex Klubi won for July with this photo of Dawson crews on patrol gridding DA-020.

Bottom right: Brandon Smith won the overall prize for his video footage of the Lake Laberge fire. Learn more about his video's unprecedented engagement on our social media account on page 20.



# Modelling fire risk

## A new model created in partnership with Yukon University researchers will help WFM assess fire risk

Fire managers will soon have a new tool to assess fire risk in the Yukon, thanks to a team of researchers from Yukon University.

Fire scientist Kris Johnson approached the university last year with a request for a simple computer model to calculate fire risk.

Instructor Jaclyn Semple and students Amanda Eskridge and Brandon Whey created the new model, which offers a coarse-scale risk assessment for any new ignition in the Yukon. The model is extremely simple, using just three inputs: the fuel layer, Values At Risk (VARs), and community boundaries.

When given the latitude/longitude of a new ignition point, the model uses these inputs to spit out a risk rating on a scale of 1 to 5 (low to extreme). It also gives the number of VARs in a 20-kilometre radius and the distance to the

nearest critical or full Fire Management Zone. This will help fire officers decide which fires are a priority.

Compared to others, it's a "quick and simple" model, requiring fewer inputs and taking less time to run, says Semple. It's meant to act as a check or backup to existing systems.

Semple's team is working with Spatial Database Administrator Leigh Relkoff to test and validate the model using this season's fire data. "We'd like to have it up and running for next fire season," says Semple.

The hope is that by 2022, it will be automatically integrated into WFM's IFMS system. Anytime a new ignition is logged, an automatic email could then be sent to duty officers with a map of the fire's radius showing the VARs, nearby communities, and risk rating.

In May, Semple presented the model to the International Association of Wildland Fire. "The response was that it's neat that we are doing a simple model, and that we are actually working with our local wildland fire

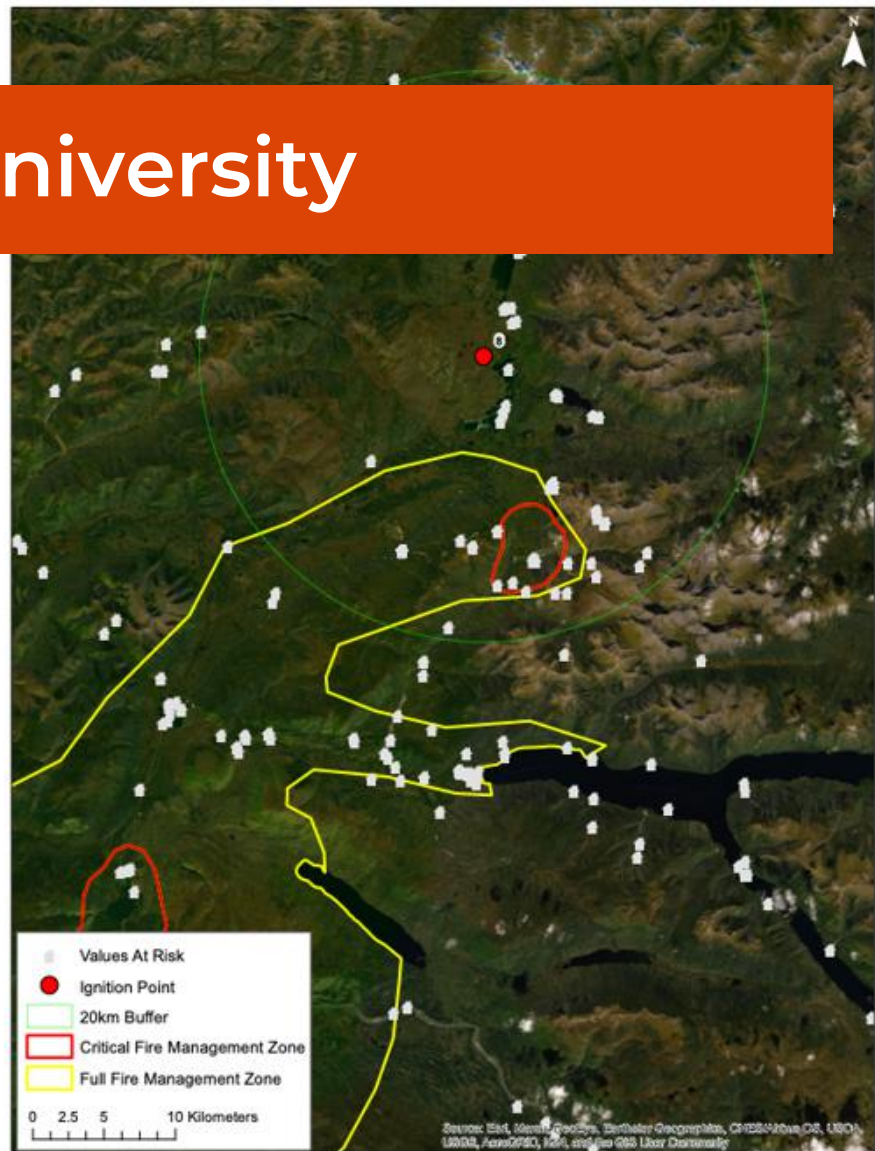
```
Number of VARs within 20km:  
178  
  
Minimum distance to FMZ critical:  
10.817km  
  
Risk Rating:  
3 (High)
```

*A sample output from the new model. The model uses the latitude and longitude of a new ignition point to produce a risk rating on a scale of 1 to 5, identify nearby Values at Risk, and calculate the distance to the nearest Critical or Full Fire Management Zone.*

# with Yukon University

"We were excited to just be involved with something that's useful."

Jaclyn Semple,  
Yukon University  
instructor



*With the new model, duty officers could automatically receive a map of each new ignition point showing nearby VARs and the Critical or Full Management Zones within a 20-kilometre radius.*

management," she says. "That seems to be a rare thing. And being up here in the Yukon, I think, gives that opportunity."

Semple and her students are grateful not only for WFM's financial support, but for the opportunity to collaborate. "We were excited to just be involved with something that's useful," she says. They've also had the chance to learn about fire science through courses like Advanced Fire Behaviour with WFM.

Semple's students were excited to work on the model, connect with WFM, and learn about

fire. One of their favourite parts? Learning about the existence of heli-torches, dragon eggs, and other "cool" ignition tools, says Semple.

Learning about the interdisciplinary nature of fire science has also been illuminating. "Now when we look at forests, we're like – look at that fuel!" says Semple with a laugh.

In future, the team may add more inputs to the model, such as previous burns, topography, and fire weather indices. 🔥

# Emergency Response Officers step up

A new unit rose to the challenge this summer

This summer, Wildland Fire Management launched the new Emergency Response Officer (ERO) Unit. EROs Conner Lee, Kris Johnson, Ted MacDonald and Tom Hutchings are experienced wildfire officers who were used as ‘chess pieces’ to address critical operational gaps within WFM and the wider Protective Services division. These officers were embedded in the Wildland Fire Management Incident Management Unit and work from the Yukon Fire Centre.

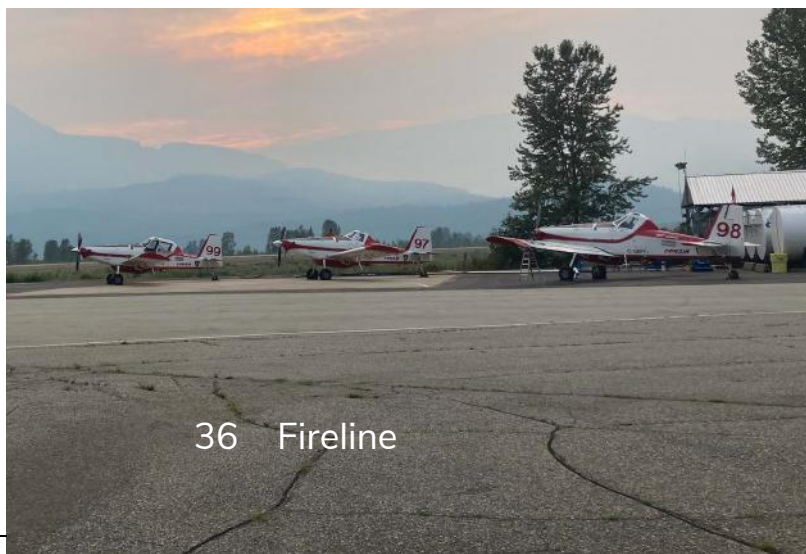
EROs fill many roles, in many locations. Operationally, this season they filled Regional Duty Officer roles in four of the Yukon’s six fire management regions, and filled over 20 percent of Yukon Duty Officer shifts. “I appreciate the willing-to-do-anything-to-help attitude the unit had this season!” says Klondike Regional Protection Manager Brian Douglas. “I see this position filling roles that regions need help in.” On the program support side, EROs led or participated in key program development initiatives like Crew Leader and Crew Member courses, chainsaw training, and fire behaviour course development and delivery.

The EROs initiated the development of four communities of practice (Ignition, Safety, Plans and Aviation), helped develop a new fatigue tracking system and revised the Wildland Fire Analysis process. The unit also played a key role in assisting with the 2021 floods, as officers worked in various capacities on every flood incident of the season. “The unit was spectacular at stepping up and filling in when and where required,” says Wildland Fire Risk Specialist Carl Cibart.

For perhaps the greatest contribution of the summer, two EROs were assigned to become Air Attack Officer Trainees, helping ensure that knowledge and expertise are passed on to a new generation. Read about the trainees’ experience in the air on page 17. 🔥



*Top: In back (L-R): Alex Soloviev, Conner Lee, Tom Hutchings; in front: Caleb Tomlinson, Kris Johnson, Ted MacDonald. Photo by Julia Duchesne.  
Bottom: Yukon's air tanker group 2 under smoky skies at B.C.'s Revelstoke Airport. Photo by Tom Hutchings.*





### **Experienced minds**

Mayo Regional Protection Manager Dave Trudeau has over 20 years with Yukon's fire program to his name, including as a firefighter with the Selkirk First Nation's Pelly Fire-Head Hunters.

*Photo not by Gerry Trudeau.*

# FROGS ahoy!

## WFM invents a new device for

Soon, Wildland Fire Management crews may be fighting fire with the help of fire frogs. Not the amphibians – rather, a clever new invention developed right here in the Yukon.

The Fire FROGS (“Forward Rate Of Growth Sensors”) capture information at the head of a fire, where it would be unsafe to put firefighters.

Each FROG is a small black plastic box attached to a big orange parachute. Inside the FROG are sensors that measure temperature and barometric pressure. Fire Assessors, flying at the head of aggressive free-burning wildfires, drop the frog in front of the oncoming fire from the relative safety of a helicopter. The FROGS transmit the information in real time back to a receiver aboard the helicopter.

As the fire approaches the FROGS, their temperature and pressure readings will increase. This information will be used by fire managers and scientists to better understand the physics of what is actually happening at the head of aggressive fires.

*Left: Ashley Harris drops a FROG on the Ta'tla Mun Fire on August 1, 2021. Photos by Kris Johnson.*



## tracking fire spread

When the fire front passes over the FROG, it (dare I say it) croaks – providing a valuable data-point telling us exactly where the fire was at a given time.

The FROGS' sacrifice will help fire scientists better understand fire behaviour, develop better fire growth models, and help fire managers make better decisions.

Fire FROGS are the brainchild of Yanik Freeman of Yukon's Advanced Sensor Research. Freeman worked with WFM's Kris Johnson to develop the devices, writing the software himself. They're based on a motherboard his company has had in the works for about a year.

FROGS were first used on August 1 at the Ta'tla Mun fire (CA-005), the first time that sensors have been used on the ground in a real fire rather than a controlled burn.

Congrats to Yanik Freeman, Kris Johnson, Ashley Harris, and everyone involved in developing and deploying this Yukon invention!



*Right: The Ta'tla Mun Fire (CA-005) on August 1 and the receiver on the helicopter.  
Photos by Kris Johnson.*





# Working together to reduce fire risk



# Kwanlin Dün First Nation

A Kwanlin Dün First Nation (KDFN) crew is hard at work this fall, thinning trees along the escarpment behind Falcon Drive. Brush is burned or chipped, while fuelwood is stacked and left in place for anyone to use. Some also goes to the First Nation for distribution to Elders, ceremonies, events, and the Kwanlin Koyotes ski club.

Gary Bailie, who has run KDFN's FireSmart operations for two decades, says it feels good to be part of safeguarding the community from fire.

He is proud of the work his crews do, and how it impacts their lives. "They're really right at home out in the bush, on the land," he says. Plus "socio-economically, it's boosting the quality of life for them and their families." He tries to be proactive in his hiring; there are two women on his seven-person crew. "It's a good thing in our community to have those role models," he says.

WFM FireSmart and fuels management specialist Luc Bibeau lauds the First Nation for setting an example in its work. "Kwanlin Dün has shown a great deal of leadership and proven to be a true partner in wildfire hazard reduction around Whitehorse. The pride that the crew takes in their work shows in the final product," he says, noting the attention to detail shown in KDFN's recent projects in Valleyview and Copper Ridge. Bailie says the excellence comes from pride in workmanship. He wants FireSmart crews to understand the importance of what they're doing.

"If all the conditions are all right, a fire could just come ripping through here," he says. "At least with FireSmart it puts the brakes on it, eh?"

Bailie sees other benefits to FireSmart. "It opens up the forest, it makes for healthy forests, and also it makes for a safer community too." With better sightlines, parents can keep an eye out for bears while their kids play outside. The wind blows through more easily, clearing out the bugs. "Those aren't written in the FireSmart manual," says Bailie, "but these are things we've noticed."

**"If all the conditions are all right, a fire could just come ripping through here... At least with FireSmart it puts the brakes on it, eh?"**

Gary Bailie, KDFN

Bailie says First Nations appreciate being involved in decision-making. "We know a lot about the land, and a lot about the wilderness, and we're happy to share our knowledge," he says. "We want to be at the table, we want to have some contributions, because we're all in this together, right?"

KDFN has "a great relationship" with Wildland Fire, he says. "We constantly talk back and forth." One suggestion that KDFN brought to WFM is the importance of wildlife habitat. Crews leave animal dens untouched, and when they find a dead tree, they check to see if it's good bird habitat. If it is, the tree stays standing. "We have to care for those animals too," says Bailie. WFM now incorporates these considerations into all FireSmart work.

"I'm grateful for the open dialogue we have



about future project areas, prescriptions, and what we can do together to make this community safer,” says Bibeau.

Crews sometimes encounter people who are nervous about seeing smoke and crews with chainsaws near their homes. But most people come around once they see the results. Ultimately, says Bailie, “We’re getting a really favourable response from all the people.”

Recently, to allay public concerns about burning brush, KDFN bought a wood chipper and chipped it instead. “We’re wide open to learning all the time,” says Bailie. He loves attending conferences to share KDFN’s story and to hear new ideas.

“People are always innovating,” he says. “It’s a success story, really, FireSmart.”

## Copper Ridge

This summer, Copper Ridge was presented with the inaugural Yukon FireSmart Leadership Award. But local residents are just getting started on their efforts to keep the neighbourhood safe from wildfire.

Stu Clark and Myles Thorpe are two founding members of Citizens for a FireSmart Whitehorse, a group pushing for action to address wildfire risk in the city. After the 2016 Fort McMurray fire, Clark started thinking of wildfire as the major risk to his home city in this time of climate crisis.

Since Clark and Thorpe live in Copper Ridge, a neighbourhood surrounded by uphill slopes and dense boreal forest, they decided to start close to home. With the Copper Ridge Neighbourhood Association, they’ve spent the past two years trying to improve wildfire resilience in Copper Ridge.

They started by holding public meetings and sending a FireSmart homeowners’ manual to every house on the perimeter of the neighbourhood, the most vulnerable to wildfire.



Photo: Copper Ridge celebrates its Yukon FireSmart Leadership Award.

“It was pretty clear from the first year that just providing people with information, even information at their doorstep... only goes so far,” says Clark. “People are busy, that thing might end up in the recycling pretty quickly.” Working with Wildland Fire Management, they also oversaw several fuel management projects on the south edge of Copper Ridge.

This year, they kicked it up a notch, going door to door to 140 houses on the perimeter of Copper Ridge. They offered to do a FireSmart property assessment, providing simple recommendations to make homes more resistant to ember showers.

Uptake was quick: the majority of households contacted said yes right away. Two young people, a University of Victoria graduate and a Yukon University student, were hired to do the assessments from June 15 to July 15. More than half of the responding households received an assessment.

Clark is quick to acknowledge support from both Wildland Fire Management and the Whitehorse Fire Department. “From the very start, both with the advocacy work as well as the practical work in Copper Ridge, Wildland Fire [has been] extremely supportive,” says Clark. “I think that that certainly gave us the gumption to try some of the things that we tried.”

Likewise, the Whitehorse Fire Department provided crucial help in FireSmart assessments, giving an orientation to the two assessors and even accompanying them on some of their rounds.

While Copper Ridge has made an important start, the next step is to see whether

homeowners actually acted on the recommendations they received. A follow-up survey is planned for 2022 to answer that question. After all, says Clark, progress is “actually achieving greater resilience to fire.”



Photo: firefighters supervise a prescribed burn near Whitehorse in May 2021.

# Haines Junction

When fire season is over, there's still a lot of work to be done. Along with our mandate to fight fire, Wildland Fire Management leads the development of wildfire-resilient Yukon communities by reducing wildfire hazards.

The branch is working with communities to create Community Wildfire Protection Plans, or CWPPs, that guide wildfire hazard reduction. CWPPs identify areas with high-risk fuel loads, and treatment options for those areas. They are led by the community, including municipal and First Nation governments, Renewable Resources Councils, and stakeholders. Wildland Fire Management staff facilitate the plans and contribute their expertise in wildfire hazard reduction.

Kluane Regional Protection Manager Ryan Nixon is working on the Haines Junction CWPP with Champagne and Aishihik First Nations, the Village of Haines Junction, the Alsek Renewable Resources Council, and Parks Canada. The CWPP will help these groups coordinate projects in order to build a consistent fuel break around the community.

"That's one of the goals of this," says Nixon. "Bringing our work together so we can get the best bang for our buck."

Unlike in some communities, the Haines Junction CWPP isn't starting from scratch. Haines Junction has an existing forestry fuel management group. Over the past two decades, priority areas for fuel abatement work have been identified and treatments recommended.

"The groundwork's already been done years

ago, as to where the hazards are, what should we address first," says Nixon. "So everyone's on board, plans are in place, but money hasn't been there, or maybe government appetite to move forward with the plans." Now, he says, people are excited that there's momentum to get the work done, and the funding to make it happen, through the CWPP process.

There's also increasing community support for the work. "Maybe 10 years ago, it was harder to convince people to cut trees around the community," says Nixon. With more awareness about the threats of wildfires to communities, that has changed. "Now, there's more support for actually doing fuel abatement around the community ... for protection."

The content of the Haines Junction CWPP was approved by all parties at a meeting last December and is now being polished up before signing. Fuel abatement treatment will be completed this fall for one priority area, Block 3. Work will begin on other priority areas next fall, after the projects have received regulatory approval.

"Once this is agreed to and signed off, we have a document that's good for the next, hopefully, 10 years, before we have to go back and readjust it," says Nixon.

The CWPP framework will also provide certainty for the businesses that bid on and carry out hazard reduction work in the territory. Nixon hopes that having a ten-year plan with reliable, designated funding will encourage employment and contract opportunities in wildfire hazard reduction work.

"If we can guarantee, [for the] next ten years, that this is the plan, and this is how much money we have a year, it will attract more people to get on board and get in the game." 🔥

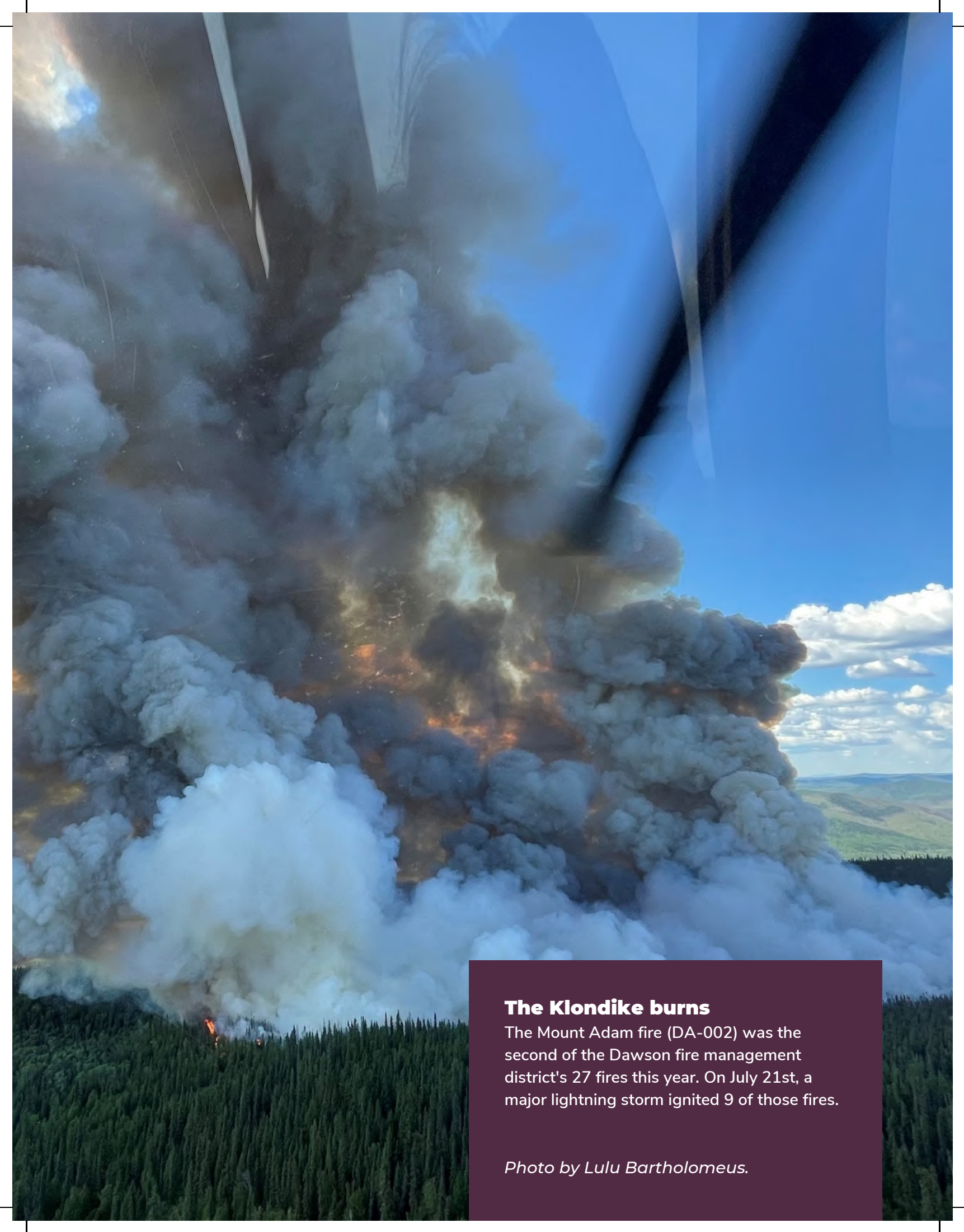


# 2021-22 FireSmart projects



Over the coming year, 36 groups will receive a total of \$1.1 million in FireSmart funding to remove forest fuels from areas near their communities and improve community wildfire resiliency. The Government of Yukon is investing \$850,000 through the FireSmart funding program, and the Government of Canada's Emergency Management Assistance Program is contributing a further \$250,000.

- Champagne & Aishihik First Nations
- Copper Ridge Neighbourhood Association
- Dawson City Fire Department
- Elijah Smith Elementary School Council
- First Nation of Na-Cho Nyäk Dun
- Golden Horn Elementary School Council
- Hidden Valley Elementary School Council
- Ibex Valley Volunteer Firefighters Society
- Junction Arts and Music Society
- Keno Community Club
- Klondike Valley Firefighters Association
- Kluane First Nation
- Kwanlin Dün First Nation
- Liard First Nation
- Little Salmon/Carmacks First Nation
- Marsh Lake Emergency Services Society
- Mary Lake Community Association
- McLean Lake Residents' Association
- Mount Lorne Volunteer Fire Department
- Pine Ridge Neighbourhood Association
- Porter Creek Community Association
- Porter Creek Secondary School Council
- Riverdale Community Association
- Ross River Dena Council
- Selkirk First Nation
- Spruce Hill Community Association
- Ta'an Kwäch'än Council
- Tagish Volunteer Fire Department Society
- Teslin Tlingit Council
- Town of Faro
- Tr'ondëk Hwëch'in
- Village of Haines Junction
- Village of Teslin
- Vuntut Gwitchin First Nation
- White River First Nation
- Wolf Creek Community Association



### **The Klondike burns**

The Mount Adam fire (DA-002) was the second of the Dawson fire management district's 27 fires this year. On July 21st, a major lightning storm ignited 9 of those fires.

*Photo by Lulu Bartholomeus.*

# 2021 wildfire crews



**Berdoe:**  
Jesse Globensky, Clint Wheeler, Julius Skookum



**Champagne & Aishihik First Nations:**  
Tristan Allen, Cole Sinclair, Evyn Dinn



**Firestone:**  
Ronan Hopkins, Rena Dehne, Adam Leary



**Haines Junction Alpha:**  
Maya Cairns-Locke, Laura Montmasson, Derek Wolfe

# 2021 wildfire crews



Haines Junction Bravo:  
Sam Turcotte, Ryan Dumkee, Frank Parent



Hyland:  
Luke Harris, Keith Hobbis, Grace Sheardown-Waugh



Liard:  
Aaron Chaput, Hunter Wolfe, Ethan Schilling  
(missing Aaron Johnston)



Little Salmon/Carmacks First Nation:  
Eddie Jim, Davide Tartaglia, Will Sternbergh





Na-Cho Nyäk Dun Greyhunter:  
Tyrell Genier, Devin Moses



Ross River Dena Council Dragon:  
Jordan Vallevand, Mikaiiah Ladue, Sid  
Atkinson, Anthony Caesar



Selkirk First Nation Pelly:  
Duran Simon, Myles Blattman, Samuel  
Christopherson, Gavin Joe



Taiga:  
Carl Gaumont, Sam Connolly, Guy  
Couture (not pictured)

# 2021 wildfire crews



Tr'ondek Hwëch'in Eagle:  
Joaquin McWatters, Lulu Bartholomeus,  
Elijah Stevens



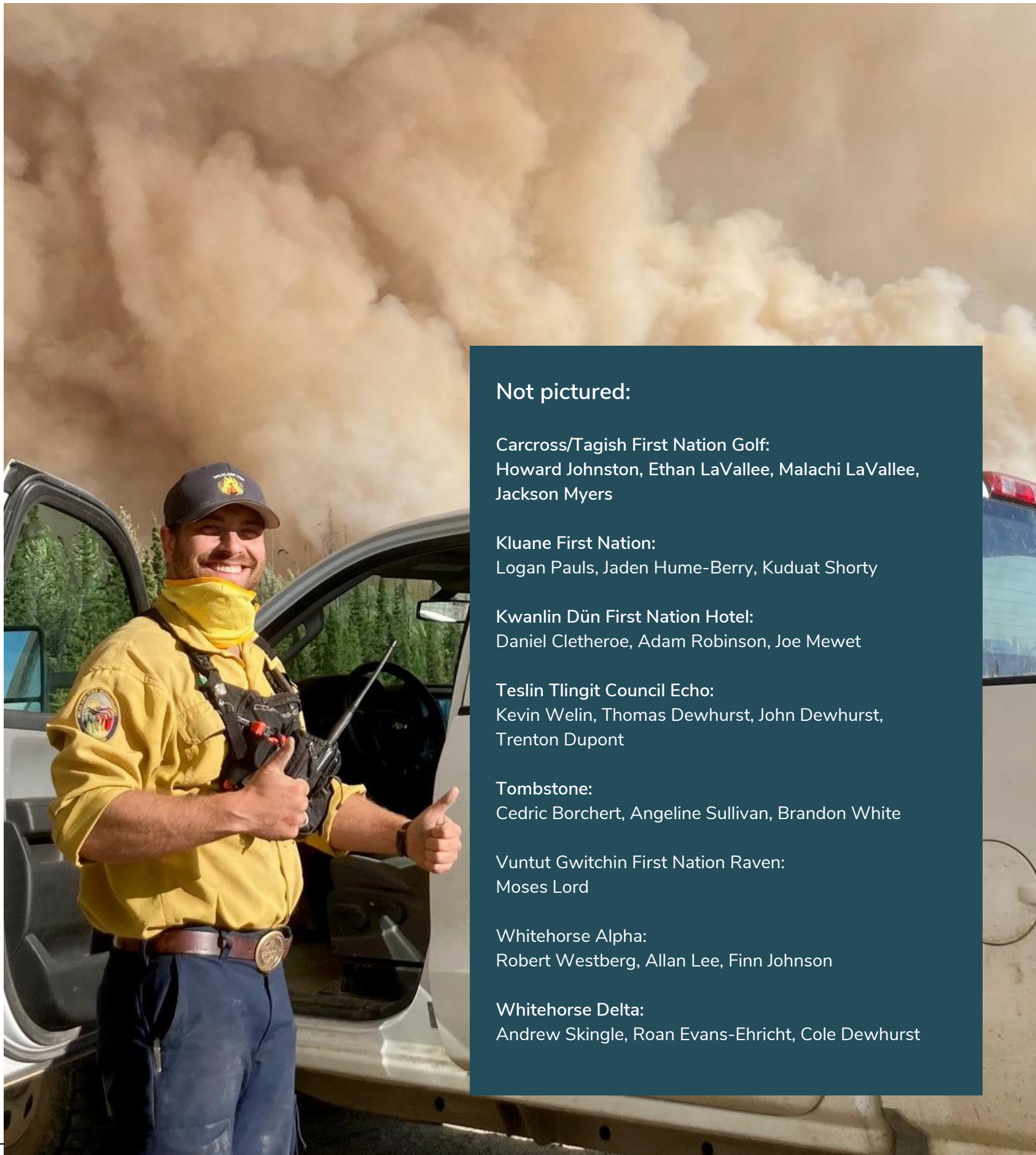
Whitehorse Bravo:  
Mac Prawdzik, Riley Pettitt, Marcus Deuling



Whitehorse Charlie:  
Brandon Smith, Brittany Au, Lewis Cameron



White River First Nation:  
Alex Klubi, Joey Lorenz, Chris Stevens



### Not pictured:

#### Carcross/Tagish First Nation Golf:

Howard Johnston, Ethan LaVallee, Malachi LaVallee, Jackson Myers

#### Kluane First Nation:

Logan Pauls, Jaden Hume-Berry, Kuduat Shorty

#### Kwanlin Dün First Nation Hotel:

Daniel Cletheroe, Adam Robinson, Joe Mewet

#### Teslin Tlingit Council Echo:

Kevin Welin, Thomas Dewhurst, John Dewhurst, Trenton Dupont

#### Tombstone:

Cedric Borchert, Angeline Sullivan, Brandon White

#### Vuntut Gwitchin First Nation Raven:

Moses Lord

#### Whitehorse Alpha:

Robert Westberg, Allan Lee, Finn Johnson

#### Whitehorse Delta:

Andrew Skingle, Roan Evans-Ehrich, Cole Dewhurst

# 2021 fire centre staff



## Mayo Fire Centre:

Simon Woods, Acting Regional Protection Officer  
 Kissel Reid, Regional Finance and Administrative Assistant  
 Gary Gordon, Acting Mixmaster  
 Brad Hoogland, Stores  
 David Trudeau, Regional Protection Manager  
 Brian McDonald, Ferry Hill Lookout Tower (inset)



## Watson Lake Fire Centre:

Aaron Johnston  
 Luke Harris  
 Hunter Wolfe  
 Grace Sheardown-Waugh  
 Aaron Chaput  
 Cal Read, Regional Protection Manager  
 Kai Widdecke, Mixmaster  
 Front (L-R): Louyse Mongeon, Regional Finance and Administration Assistant  
 Keith Hobbis  
 Tyson Cole  
 Ethan Schilling  
 Danielle Bossio



## Carmacks Fire Centre:

Gerry Trudeau, Regional Protection Manager  
 Brian Murrell, Regional Protection Officer  
 Christine Spencer, Regional Finance & Administration Assistant  
 Emmanuel Ribao, Stores  
 Bobby Gage, Carmacks Lookout Tower  
 Milada Pardovicova, Mixmaster

## Ross River Initial Attack Base:

Jeffrey Melnychuk, Regional Protection Officer

Klondike Fire Centre:

Brian Douglas, *Regional Protection Manager*  
Markus Lenzin, *Dawson Lookout Tower*

Southern Lakes Fire Centre:

Keith Fickling, *Regional Protection Manager*  
Doug Cote, *Emergency Response Officer*  
James Kathrein, *Whitehorse Regional Protection Officer*  
Daniel Adamson, *Teslin Regional Protection Officer*  
Linda Brandvold, *Regional Finance & Administration Assistant*  
Stephen Trudeau, *Stores*  
Avery Bridges, *Stores (end of season)*  
Robert Stitt, *Tagish Lookout Tower*

Kluane Fire Centre:

Ryan Nixon, *Regional Protection Manager*  
Shane Oakley, *Regional Protection Officer*  
Lorne Burnett, *Regional Protection Officer*  
Nick Van Vliet, *Stores*  
Talyce Henkel, *Regional Finance & Administration Assistant*

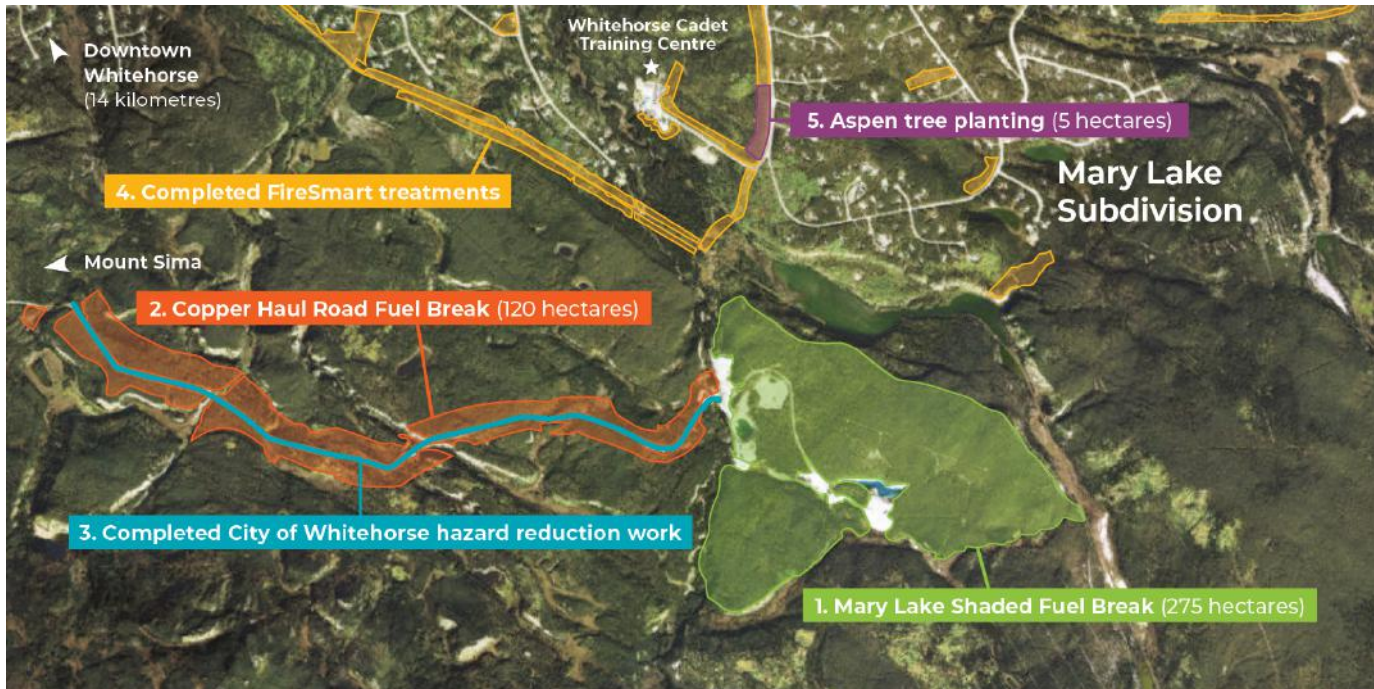


Yukon Fire Centre:

Left to right: Jeff Lister, Caleb Tomlinson, Alex Soloviev, Coleen O'Hagan, Conner Lee, Jocelyn Thompson, Lisa Walker, Ted MacDonald, Shawn Kinsella, Tom Hutchings, Kris Johnson (kneeling), Pete Wright, Catherine Welsh, John Wright, Colin Urquhart (kneeling), Meaghan Bouvier, Leigh Relkoff, Carl Cibart, Vern Marshall, Michael Smith, Luc Bibeau

Not pictured: Dan Baikie, Jane Bell, Nicole Charbonneau, Emily Dorosz, Julia Duchesne, Mike Fancie, Mark Hill, Emma MacDonald, Melanie Magnusson, Mike Sparks, Tristan Sparks

# Protecting Whitehorse from wildfire



*These wildfire hazard reduction projects are part of the Whitehorse South Fuel Break.*

Progress was made this year on the Whitehorse South Fuel Break, a 395-hectare parcel of land that reduces the City of Whitehorse's wildfire hazard.

Existing breaks in forest fuels like the Copper Haul Road have been widened to further reinforce the area as a fuel break. For a distance of up to 125 metres on either side of the Copper Haul Road, higher hazard forest fuels have been thinned or removed. In addition to this, an area west of the Mary Lake, Wolf Creek and Cowley Creek subdivisions is undergoing hazard reduction through a combination of thinning and clearing. This fuel break reduces potential fire behaviour and creates a defensible space for firefighters to use.

The harvested coniferous trees were used for firewood, sawlogs and biomass. Next spring, thousands of aspen seedlings will be planted in the area. Aspens are a leafy deciduous tree and are more fire-resistant than their coniferous counterparts. When these aspen trees grow up,

the converted forest will not only be beautiful, but also more resilient to wildfire.

The Whitehorse South Fuel Break is funded by the governments of Yukon and Canada. It was created as a joint project between Wildland Fire Management and the City of Whitehorse. 🔥



*Thousands of aspen seedlings will be planted in 2022 to replace the harvested conifers. Photo: Kat Hallett.*

## **Jalopy, baby**

41 firefighters, their personal gear, and a crew-cab pickup truck crammed into a C-130 Hercules for an airlift to BC in August. Fire Information Officers are responsible for documenting and showing people the branch's work.

*Photo by Mike Fancie.*





WILDLAND FIRE



WILDLAND FIRE





# Mike Sparks calls it a career

On June 12, 1999, embers from a waste burn at the Burwash Landing transfer station blew into the forest and started a fire. Driven by strong winds, the fire escaped control and quickly swept towards the community about 8 kilometers away.

Mike Sparks, then a Resource Management Officer at the federal government's Yukon Fire Management in Watson Lake, was assigned to take charge of the fire. Quickly leaving his wife, toddler and newborn baby for Burwash, he arrived at 10:15 a.m. to lead a handful of firefighters in the efforts to protect the community.

*Left: Mike Sparks at the Yukon Fire Centre in 2021. Photo: Mike Fancie. Top: an Emergency Fire Fighter watches a crown fire burning from downtown Beaver Creek in 1999. Photo: unknown.*

The fire, still driven by windy weather, had made quick work of the forest between the transfer station and the community. The decision was made to evacuate 88 residents and tourists. They would not be back for over two weeks.

The fire eventually claimed five homes, but no one was hurt. Things might have been different if not for Sparks' initial decision to light a controlled burn that redirected the fire away from the community. He tells the story of how they did it with a handful of people with the calm and confident cadence of someone with over 40 years working wildfires, and who counts the Burwash Landing fire as one of his career highlights.

As the 2021 fire season comes to an end, Sparks, the beating heart of a program

# Rapid fire with Mike Sparks

*The new logo or the old one?*

I much prefer the old logo; it was well received by staff and across Canada and the Western US – it was great for building esprit de corps.

*Would you take bottled water or sports drink to the fireline?*

Back in the day we didn't have bottled water. We used to drink from streams or creeks; that's still my preference.

*Which uniform looks better – Nomex or greys?*

They both look good, but if you're wearing Nomex it's best to be dirty! As a leader you need to get dirty at times.

*What's the best deployment swag?*

I think our challenge coins have become pretty popular over the last few years. They go a long way in the fire community now. I'll leave you with my hat collection (that my wife has so patiently put up with for 30 years).

*What message do you have for new crew members?*

Stay safe, enjoy the ride, and remember to spend time with your family when fire season is done. If I have any regrets, it's the time I spent away from family during the summer months.

that has undergone countless changes during his tenure, is calling it a day.

His career started in 1979 as a relief fire tower lookout in Valleyview, Alberta. By 1981, Sparks was an initial-attack crew leader in High Level – an assignment that he credits with teaching him most of his fireline knowledge. In 1988, the temptation to drive North overtook Sparks:

“I came to the Yukon in 1988 as a crew leader, I drove up the Alaska Highway not knowing a single person or where I was going. When I first arrived in Watson Lake my job was to lead a 6-person initial-attack crew. On day two I was sent to the training camp at Takhini Forest Reserve as an instructor.

1988 also saw Sparks join an export crew that worked in the Midwestern United States:

“14 of us went down to Yellowstone and we worked fires there for 6 weeks. Because of my experience with medium helicopters I was assigned as a helicopter manager for a Bell 214 and a Chinook helicopter. The assignment took me to fires on the Salmon River in Idaho and West Yellowstone.

Sparks quickly rose in the Yukon Fire Management ranks. By devolution, only the Yukon and Parks Canada could lay claim to federally-managed wildland fire organizations. When Canada handed over responsibility to the Yukon government, Sparks was the Resource Management Officer for southeastern Yukon and was central to the process of working with federal and territorial officials to create a Yukon wildland fire program within the Department of Community Services.

That process was hard work, but Sparks was prepared for the job. After the Umbrella Final Agreement (UFA) was signed, Fire Management set about fulfilling its obligations to share responsibility for forest management with First Nation governments. One practical outcome of this process was the signing of agreements for First Nation governments to provide initial-attack crews to the fire management program.

The first contract was negotiated between the Liard First Nation and a team of officials led by Sparks shortly after the UFA was signed. He went on to negotiate initial-attack contract negotiations that, in Sparks' eyes, "formed partnerships with Yukon First Nations and the basis of our initial-attack program". The contracts are meant to provide employment and capacity-building within the Yukon's First Nations communities. It remains a unique program in Canada that puts meaningful reconciliation into practice.

If you asked Mike Sparks about the highlight of his career, he would tell you one of his main jobs was to make sure crews and staff have what they need to get the job done.

Having based his entire career around "coming up from operations", Sparks never lost sight of the fact that the "people on the ground are the most at risk of harm". Focusing on firefighter safety and welfare just makes sense to someone who spent so much time on the fireline before being minted as an officer.

Now, as he passes the torch to a new cadre of operations managers (that's right – it's a multi-person job now!), Mike Sparks leaves behind a modern wildland fire agency that has grown in leaps and bounds from the one he joined as a crew leader in the 1980s.

Thanks to the road he has paved ahead of them, they're already on the path to success. 🔥

*Below: crewmembers pose for a photo during their S-131 certification course. Photo: Hyder Bos-Jabbar.*



# Smokey goes to school

## Wildfire outreach in the community

One afternoon this spring, the hallways of Christ the King Elementary school witnessed a strange sight – a bear wandering the hallways. But the visitor wasn't just any bear. This bear sported blue jeans, big boots, a ranger's hat, and bright red Dawson City suspenders. Smokey Bear was on site to teach a classroom of kids about fire safety. It was a beautiful day, so the lesson happened outside under the blue skies of Riverdale.

First, Smokey's Wildland Fire Management sidekicks taught the kids about proper campfire safety. The attentive audience learned how to safely tend and extinguish a campfire. Never make a fire bigger than you need, and be especially careful in windy or dry conditions. When you're done, remember to "soak, stir, repeat" – soak the coals with water, stir them with a stick, and repeat until the ashes are cold to the touch. Then, kids got a chance to use a real handheld hose pack. One by one, the kids used the pump to target bowling pins set up on a fence, cheering when a jet of water knocked a pin to the grass.

Then, it was time for Smokey Bear to visit. When Smokey appeared, kids crowded around the huge bruin, getting hugs, high-fives, and fist bumps. They even demonstrated their "soak, stir, repeat" moves, receiving a thumbs-up from the bear. While some of the kids couldn't decide if Smokey was a real bear, they all enjoyed the visit. Word of Smokey Bear's presence spread, dare I say, like wildfire. When it was time for the bear to wave goodbye to the first class of kids, a teacher requested a detour through a hallway so a few others could say hi.



Smokey was no match for the dozens of students who piled out of classrooms to catch a glimpse of the famous firefighting bear. Waylaid, Smokey ended up visiting several classes to greet admirers and spread the fire safety message. Curious kids trailed Smokey down the hallway and out towards the front door before finally being corralled by their teachers.

The visit to Christ the King was just one of the many outreach events we attended this spring before fire season got into full swing. We also spoke to students at Grey Mountain Primary, Takhini Elementary, Ross River School, and the St. Elias Community School in Haines Junction. Most of these visits were organized by Fire Communications Assistant Emma MacDonald, who hit the ground running in her second year as a STEP student.



I'm Ember, the new FireSmart Canada mascot. I'll be helping Smokey Bear share wildfire safety information with kids across the Yukon!



Over the summer, we also attended FireSmart events in Carmacks, Tagish and Copper Ridge, and joined the Mt. Lorne Volunteer Fire Department for a great party to mark their 25th anniversary.

Donning the Smokey mantle is not for the faint of heart, but it's a privilege to help teach kids about fire safety and bring smiles to their faces

at the same time.

Many thanks from the outreach team to the firefighters and other staff who helped out at some of these events – Smokey Bear salutes you! And thanks also to the teachers and communities who welcomed our team.

See you next year! 🔥

*Below: Smokey and crews in Haines Junction. Photo: Emma MacDonald.*

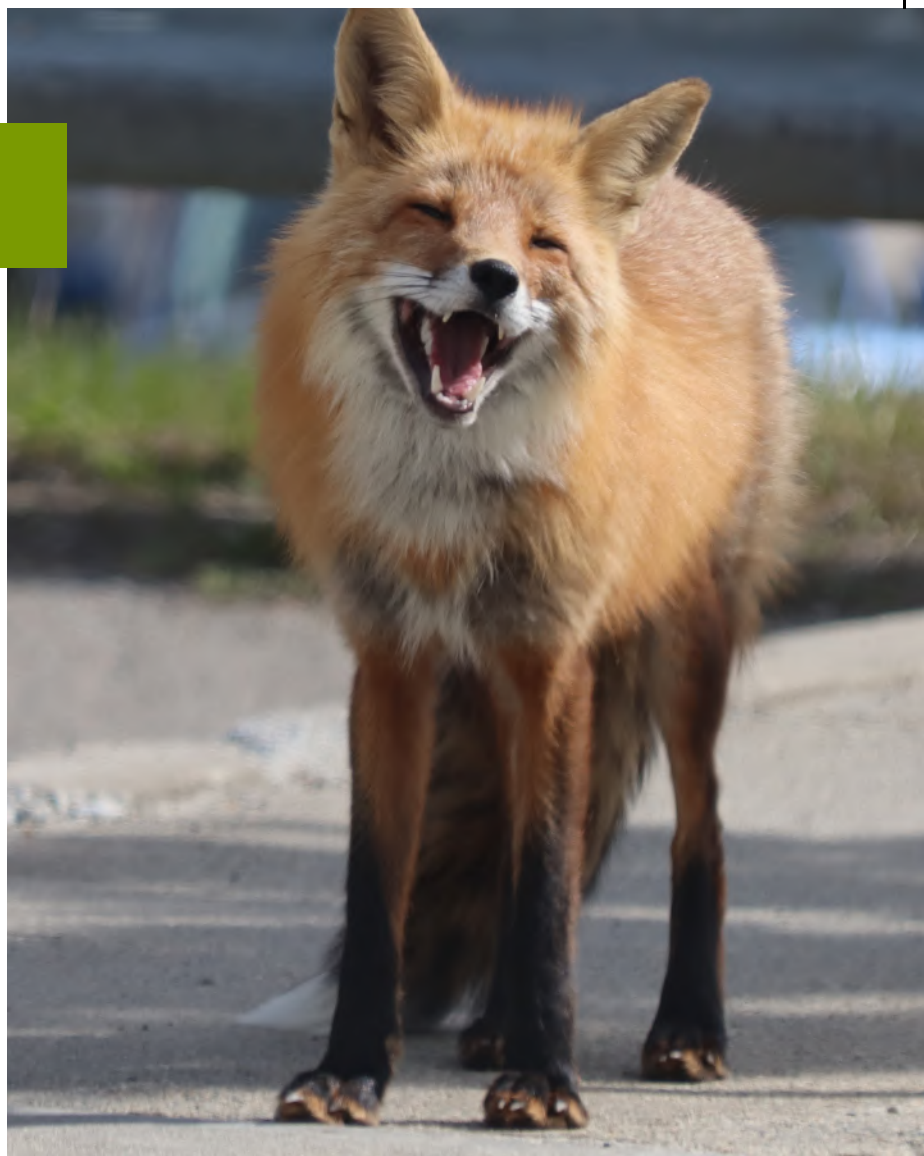


# Fox watch

Fox kits are one of the signs of summer at the Yukon Fire Centre. Foxes regularly den by the equipment yard near our operations centre in Whitehorse. Each spring, YFC staff eagerly await the arrival of a fresh crop of baby foxes.

This year, there were 7 kits in the den. These photos are from May, when the kits were young and playful. By summer, the foxes had grown large enough to disperse and move on from the den.

Environment Yukon is studying the city's foxes, whose population seems to be increasing. As part of a project with the University of British Columbia, they are surveying Whitehorse fox dens. They visited our den a total of 17 times over the summer to record the foxes' activity.



*Above: An adult fox poses near the Yukon Fire Centre. Photo by Julia Duchesne. Below: Four of the seven fox kits born this spring. Photo by Mike Fancie. Back cover photo: The Ta'tla Mun fire (CA-005) on August 1. Photo: Kris Johnson.*





**READY FOR A**

**WILD  
FIRE  
JOB?**



Apply to become a wildland firefighter.  
Learn more: [Yukon.ca/wildfires](https://Yukon.ca/wildfires)

**Yukon**



Yukon