# Adams Lake Facilitated Learning Analysis

Use the dots or arrows on the right hand side of the page to navigate through the varying events of the Adams Lake Complex.

Within each block that you see a 'START' icon in orange, you can access more content about the: Situation Build Up, Burn Day, Extreme Fire Behaviour Impacts the Urban Interface, and From Then On (by clicking to the right).

Maps, videos, and audio clips are incorporated throughout as alternative ways to share information and firsthand stories.

There are a series of 'For Discussion' prompts throughout the FLA that contain questions intended to encourage reflection and discussion. Consider these prompts as opportunities to engage with your peers and supervisors, exploring various perspectives.

***[The following pages contain the text from an online portal that also contained photos, maps, and videos. Public access to this site was removed by the BCWS shortly after they learned it was under public scrutiny.]***

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**Disclaimer:**

This Facilitated Learning Analysis (FLA), embarked upon by an assembly of dedicated BC Wildfire Service (BCWS) staff, delves into two impactful events that occurred on the Adams Lake Complex during August 2023. The FLA team has attempted to piece together the multitude of narratives from a wide range of interviews and perspectives to capture the complex and chaotic nature of wildland firefighting. It is a journey through a fast paced, rapidly evolving, and volatile fire environment, where the boundaries of organizational span of control, experience, and communication were tested.

Our goal is to give light to people's experiences in the context of a situation that was beyond the capabilities of any wildfire response organization and to ask questions about what matters in these moments. The narrative employs language to remain true to the interviewees' experiences, thus acknowledging the importance of the role of emotions and feelings in decision-making during stressful situations. This document encourages readers to reflect on the events and aims to enhance learning and preparation for future challenges by understanding different perspectives. The purpose and approach of an FLA is not meant to be an operational review, find root causes, establish exact timelines, or make recommendations. Instead, it focuses on sharing stories and perspectives from those involved to foster discussion and learning.

We would like to thank FLA participants from the First Nations, BCWS, W-Teams, Fire Departments, pilots, Regional District, and contractors. Without you sharing your story, this complex event would never be a learning opportunity for others.

**Please note there are several tabs along the top of this text box to click on for further information such as background on the 2023 Fire Season, Weather, and Incident Complexities.**

**Overview:**

During mid-August of 2023, the BCWS, amidst a large volume of long term and new wildfires across the province, readied for an impending cold front. The Adams Lake Complex, comprised of wildfire incidents K21620, K21633, and K22024, demonstrated challenges that intertwined and created conditions of uncertainty for response staff, partners, and community members. This FLA acknowledges the events described took place on the traditional territory of the Skwlāx te Secwepemcúl̓ecw and Adams Lake Indian Band people of the Secwépemc Nation.

The scope of this narrative involves 2 specific events that occurred on August 17th and 18th, 2023 and how these events were experienced by the people involved.

The map below shows the 3 significant fires that the IMT was managing: West Adams Lake (K21633), East Adams Lake (K21620), and Rossmoore Lake (K22024). These 3 fires made up the Adams Lake Complex. The map shows the fire perimeters as of August 16th, 2023.

Fire Season 2023

The fire season in 2023 started early with significant fire activity in May for the north of the province with a persistent, high fire load that had kept Incident Management Teams, fire crews and support staff busy for months as wildfires spread across the entire province. Many fires had impacted community infrastructure in both frontcountry and backcountry contexts, thus placing a strain on resources with targeted - rather than complete - containment, challenging fire behaviour and consistent heavy workloads. A progressive shift towards fires in the south with continued significant fires in the north of the province resulted in the import of multiple Out of Province fire fighting resources, including international crews and Incident Management Team's (IMT). These resources were woven into the fire fighting system to support fatigue management and volume of workload.

As multiple waves of lightning-caused fires began to spark across southern portions of the province, resources were tasked to manage only for BC Emergency Management priority 1 (Human Life and Property) and 2 (Critical Infrastructure) values. This resulted in geographic complexes of multiple fires being assigned to IMTs that could focus on managing the community impacts of these fires. Many of these assignments involved supporting communities that were under great duress, as the fires and associated threats were expansive and rapidly shifting.

The depletion of resources provincially had many Out of Province IMTs (and fire crews and single resources) cycling in to assume command of fire complexes. These fully certified teams would bring valued expertise to the incidents they were assigned, yet there are significant difficulties for any group working out of jurisdiction. These include familiarity with systems (safety, finance, and operations etc.), client and partner relationships and differences in the climate, terrain and forest types of British Columbia. However, the one thing that is universal is the Incident Command System (ICS), which provides a predictable structure for emergencies regardless of scale or objectives.

During this period, the BCWS was facing significant challenges in their ability to coordinate the many varied resources being assigned to these complex events, with the situation rapidly changing and critical decisions being made under great time pressure. This system was being pushed to its fullest extent, resulting in a need to work with what was available, leveraging local support where possible, limiting risk and exposure to unsafe situations and sharing critical resources with other incidents to ensure protection of the priority 1 values.

The Weather

The Shuswap region had a very dry June; typically, this is a time when rain moderates fire season risk. As the summer progressed, fire risk increased due to above average temperatures

and below average rainfall through July and August. The recorded 17-27% increase in fuel drying led to a corresponding increase in fire intensity that allowed for lightning events to readily spark fires, and the difficult terrain contributed to rapid fire growth, resulting in the deployment of an IMT at early stages of the new fires in the Shuswap region.

Growth of the 3 large fires in this complex was influenced by steep terrain exposed to the lake effect of wind channeling, high elevation weather, inversions, and weather patterns conducive to overnight downslope spread events. This challenging fire environment allowed for fire spread under a wide variety of conditions. There are significant complexities and challenges forecasting weather at the foothills of the mountains surrounding the Adams Lake Complex. Wind patterns were unpredictable due to the complex terrain, slight deviations in trajectory of a weather system significantly magnified or negated weather impacts in this area.

A notable trend in the 2023 fire season was the occurrence of single-day spread events that exceeded projected multi-day fire growth estimates, achieving 2-3 days' worth of anticipated growth within just one day. This goes to show the severity of fire behaviour and spread that was repeatedly challenging suppression efforts. Wind funneling through valleys and ridges resulted in localized drastic wind differences within a short distance. It quickly became apparent that the complexity of forecasting local weather conditions, including the terrain impacts on winds and fire behaviour, would be difficult and inaccuracies could have significant outcomes.

An additional challenge of this region was that high-pressure weather systems could produce nocturnal downslope winds. The terrain often created ‘inversion layers’ of warm, dry air at mid to upper slope elevations at night. Conditionally unstable weather allowed these bands of trapped-air inversions to push dry air downslope at night, creating potential for significant fire growth. This downhill fire spread posed a challenge because it contradicted typical firefighting strategies that rely on reduced fire activity overnight.

Leading into the events of the FLA, the provincial weather forecast showed a cold front passage anticipated to arrive at the Adams Complex late on August 17. The forecast predicted strong winds from the S – SW, that would shift to a NW wind, picking up around noon on August 18th. The strongest winds were forecasted 15-20 km/hr and gusting to 40. This would be accompanied by a remaining dry airmass that would result in significant fire behaviour potential for the many fires across the province. This feature was closely tracked by meteorologists and was a serious concern for every fire. The Kamloops Regional Wildfire Coordination Center - and the Province as a whole - was preparing for a difficult few days.

Incident Complexities

Fire K21620 (East Adams Lake) had remained a top priority within Regional Strategic Wildfire Allocation Plan (RSWAP) rankings due to its proximity to communities and high value assets from the outset of the fire's escape from Initial Attack. This incident, along with others in the area, was assigned to an IMT.

Later additions to the complex from successive lightning events included the Rossmoore Lake wildfire (K22024) which proved to be another challenging, emergent fire. This fire was 70 km west of the main group of fires that the IMT was tasked with managing and displayed consistent daily fire growth that challenged ground resources. The Rossmoore Lake wildfire had all the complexities to warrant a single IMT, however with the lack of resources and need for doing more with less, the assigned IMT had to constantly juggle which battles became the priority.

The fires within the Adams Lake Complex demonstrated persistent growth that challenged fire fighting efforts. One key difficulty was the heavy fuel loads in surrounding forests being receptive to spot fires that would gain momentum during daily periods of increased fire behaviour. Heavy equipment lines would be established where possible with plans for direct attack and ignitions to bring fire to these lines for containment, however it only took one quickly growing spot fire outside the guards to ruin multiple days of work. This was a daily challenge that occurred often amongst the three large fires, repeatedly disrupting plans and shifting priorities quickly.


https://www.cbc.ca/player/play/video/1.6941883

Situation Build-up

The video above offers an overview of the wildfire situation in BC and narrows in on the Adams Lake Complex, which this FLA will explore in greater depth.

As the incoming IMT returned to take over the Adams Lake Complex, a chain of events unfolded that would ultimately lead to the entrapment of firefighters and an evacuation of fire camp and surrounding communities. Take a look here to learn more about circumstances that set the stage for unintended outcomes at the Adams Lake Complex.

# Handing over the Reins

On August 15, the Australian IMT handed over control of the Adams Lake Complex to the returning BC Wildfire Service (BCWS) IMT. During their two-week deployment, the Australian team had set up a new camp location closer to the Adams Lake fires, where crews were grappling with terrain challenges that made equipment and ground work unsafe. Because of this, their strategy had focused on monitoring the fire's natural progression to predetermined trigger points before implementing large-scale ignition plans.

The high-profile nature of all three fires in the complex posed significant challenges due to the proximity to community values and infrastructure, including a lumber mill that supported many local jobs. The primary focus until this point had been on the Rossmoore Lake fire, which had been displaying persistent fire growth. There were ignition plans aimed at containment on that fire prior to the cold front, targeting persistent spotting areas within the thick forest.

The incoming BCWS IMT, having previously worked on this fire, returned to find a relatively stable situation. However, as they reviewed the existing strategy, they sensed that the forecasted weather events could cause the fire to spread rapidly through the region. Significant efforts were being invested on completion and securing of planned ignitions in advance of the weather event.

# Preparation for a Significant Weather Event

Since the incoming BCWS IMT was very familiar with the systems and nuances of each of these incidents, it took no time for the team to get established and focus on the tactical communications and planning required for the potential fire growth. Fire projections and meetings were conducted regularly as known information was shared to enable local invested parties and governments to prepare.

The fire activity had been generally small areas of growth within the planning areas up to this point, and crews were diligently adding to the containment efforts for the Adams Lake East and West fires. The fire growth was expected to impact values such as the lumber mill, which was a significant priority to protect, as well as the adjacent residences of Adams Lake for which major structure protection plans were developed.

The Rossmoore fire remained the most active fire, burning in fuels that were receptive to spot fires. Many times, short range spots would be thrown up to 100 m from the fire and created ‘spotty’ conditions that were difficult to contain with equipment. This fire was looking like the most exposed fire with capabilities for growth. The potential impact on the Lac le Jeune area and Long Lake Road were probable and required aggressive action.

As details for the weather forecast became more clear on August 15th, the team was heavily focused on preparedness as they took command of the complex. The messaging was clear; the fires are currently being aggressively worked on and in the days ahead, those containment efforts would be challenged significantly. However, all the resources and partnerships available to meet the task were in place and getting prepared.

# Up in the Night

In the early hours of August 16th (approximately 03:00), members of the IMT woke up to a remarkable sight: Fire K21620, East Adams Lake was steadily progressing down and across Nik Creek, which would extend beyond any of the current planning areas for fire control. The fire had now surpassed trigger points established by the previous IMT and a significant area of additional community values were now potentially at risk of active fire. This shift in fire priorities added to the already complex situation and the IMT needed to act quickly.

The Fire Behaviour Analyst had run a Prometheus Fire Growth Projection on August 15th which generated a growth projection that painted a concerning picture. It showed the communities of Scotch Creek and Lee Creek being impacted by end of day on August 18th. Now the fire had a head start and was in a position that made this projection a real threat and possibly an underestimation.

Compounding the situation, new fires had started elsewhere in the province, including the McDougall Creek Fire near West Kelowna, while other fires, like the Kookipi Creek Fire, were rapidly expanding, quadrupling in size. These fires threatened communities, driven by the same forecasted cold front. This initiated a number of resources such as structure protection and aviation being diverted from the Adams Lake Complex to respond to these emerging priorities.

With the forecasted arrival of a cold front on August 17th, the fire's growth and new perimeter necessitated a revised plan and risk assessment. The Incident Commander and select command staff began looking for the next feasible opportunities to create a fire break. They also reassessed potential community impacts and how to manage them. This was not a situation of potential for the fire to grow but what, if anything, could be done to change the outcome considering expected fire growth.

Photo: Image shows lenticular clouds that represent upper atmosphere winds and triggered instability from the moisture and heat of the fire being driven into the upper atmosphere. This

can often draw high, dry winds down to the surface as displayed in this inversion-driven fire spread.

# Painting a Concerning Picture

On the afternoon of August 16th, the Regional Advanced Planner was asked to complete a Technosylva 72-hour probabilistic model run for both K21633 and K21620. This fire was being compared to many other emergent fires and tough decisions needed to be made for how scarce resources were to be allocated.

This model run (pictured above) is from August 16th to August 18th and shows a 40-60% chance of Lee Creek being impacted on August 18th and a 20-40% chance of Scotch Creek being impacted on August 18th. This model run did not account for any existing spot fires not known to the modeller and was being used for regional comparison to other impactful fires.

The gravity of the situation was undeniably clear, and it created a sense of urgency around the need for strategies that could change the trajectory of the fire to protect communities in the path of the advancing fire and reduce significant losses.

# Interrupting the Advancing Flame Front

(PHOTO: Red line is K21633, Yellow is K21620. Green is the Regional District Boundary, Purple is planned ignition line along powerline.)

The IMT met and as options were evaluated, it became clear that using the powerline for a planned ignition was the most viable option to have any measurable chance of success. With time of the essence and resources limited, this option had significant merit. The powerlines consisted of a very wide clearing of reduced fuels in straight lines that contoured the hillside, in a way that could contain the projected fire growth with a favorable daytime wind forecast. However, drawbacks included the narrow winding access road under the powerline, which was next to a significant area that usually would require extensive planning, improvements, and staged burn polygons often over multiple days to slowly manage intensity. Unfortunately, the time window was very short.

The intent of the ignition was to remove fuels between the powerline and K21620 prior to the forecasted wind shift on August 17th to reduce fire intensity. Any containment achieved could slow the fire and reduce a wide flame front spread to the SE during the forecasted NW wind event on August 18th. It was understood prior to the ignition that K21620 would not be fully contained to the NW of the powerline as spot fires existed outside of the ignition area, however any reduction in open uncontrolled fire had the potential to save a significant number of homes.

Ultimately, it was determined that the powerline clearing, combined with a planned ignition operation with the intent to lower the effect of a large flame front, was the most feasible option to interrupt a large portion of the advancing fire. All alternative strategies were defensive, focusing on operations within the advancing fire's path through the community. These plans ran concurrently with the proposed tactic.

# Anticipating the Cold Front

As of 13:30 on August 16th, the cold front was forecast to be 32 hours away. Machine guard was pre-emptively being constructed along the powerline and the anticipated aerial burn window was roughly 24 hours away. This window was based on wanting to burn after southerly winds picked up around noon, after the inversion broke, and to have the aerial burn completed an hour before convection was forecast.

# Catching the Spot Fire

On August 16th, their first day at the Adams Complex, the Alpha Initial Attack crew were assigned to address a spot fire located in the Scotch Creek drainage. This spot fire was situated approximately 4 kilometers ahead of the rapidly advancing K21620 fire, which had now extended beyond the Nik Creek drainage.

The Alpha IA crew's mission was to establish access to the 1.5-hectare spot fire for containment purposes. However, the crew found that the road leading to the spot had been deactivated, and they promptly requested two pieces of heavy equipment to reopen the access. Recognizing the urgency of the situation, additional resources were mobilized, including an additional Initial Attack Crew, two fallers, ten Brazilian firefighters, and two heavy helicopters, all joining forces to contain the spot.

In anticipation of a challenging night, an extra Initial Attack crew was brought in for the night shift. Their mission was to complete the road improvements and prepare bladders and pump setups for the following day's operations.

The significance of this spot fire lay in its position, lying downslope of the high-tension powerlines, which had been identified as the feasible control line. These powerlines were being reinforced for ignition purposes and had become the last line of defense against the advancing K21620 fire. Containment of this spot fire was felt to be an achievable objective and left uncontained would pose a significant risk to the Scotch Creek area, as it was beyond the planned ignition line.

Photo: Yellow line is the edge of K21620 as of August 16. The fire symbol in the image is the spot fire that the Alpha IA Crew worked as discussed in this slide.

Burn Day

With the planned ignition receiving a final assessment, and efforts to put out the spot-fire outside the line in progress, the forecasted cold front is a looming challenge. August 17th marks the day for action and an attempt to reduce the intensity of the fire before it reaches the surrounding communities.

On August 17th, the events of a large-scale ignition on the Lower East Adams Lake wildfire (K21620) left a truck full of Brazilian firefighters unexpectedly entrapped.


[Watch it here: https://www.youtube.com/watch?v=rRIF9LHT4WQ]

The video above gives an update from the morning of August 17th, prior to the ignition taking place. Flip through the slides for a closer look at this incident and the insights it offers for the future, helping us understand what happened this day and how we can learn from it moving forward.

# Back to the Spot

At 07:00 on August 17, the Alpha Crew went back to the spot fire (photo) they'd been working on the previous day with the 2 fallers, 20 Brazilian fire fighters, and an Emergency Transport Vehicle. The road was now activated, allowing the use of a water tender to shuttle water to the spot fire site. It had not exhibited any overnight growth, and the plan to contain this spot fire was established.

During the 08:00 check-in on August 17 with the RWCO, the IC obtained approval for the tactical ignition operation intended to remove available fuel along the powerlines in advance of the approaching cold front. With the ignitions plan approved, the Operations Chief and Fire Behaviour Analyst contacted the Branch Director of the section where the ignition was going to take place and requested crews get ready for the operation.

While the ignition was a crucial aspect of the conversation between the IC and RWCO, the primary focus of the call centered on addressing the anticipated community impact challenges and mobilizing resources to provide support. One pressing concern was the difficulties associated with evacuations, given that there was only one road in and out of the area. To mitigate the risk of congestion on the Squilax-Anglemont road during evacuations, a staged approach was deemed necessary and planned with the regional stakeholders.

# Expressing Concern

On the morning of August 17, the outgoing Helicopter Coordinator (HLCO) was turning over to a new HLCO team: Trainer and Trainee. They planned to spend the day together to get oriented with the aircraft and the incident's key priorities.

Around noon, the HLCOs and Branch Director discussed the potential for an Air Tanker to lay retardant in the Lee Creek drainage to support an upcoming ignition. This option was ruled out due to the difficult terrain, workload, and unclear objectives.

The HLCO team felt the request was somewhat unusual. They observed that the call for support on a burn of this size and complexity came with limited information about the proposed burn area and its resource requirements. They hadn't had the chance to assess the objectives for this new fire area through flying or firsthand observation. One of the HLCOs expressed concern about the objective's proximity to the forecasted cold front and the potential challenges of supporting an ignition under the forecasted conditions.

# Pre-Ignition Conditions

Image shows the fire activity present prior to the ignition. This increased fire activity was creating operational pressure to interrupt the fire’s progression southeast in advance of northerly winds.

Notice active spot fires to the northeast of the main fire that had significant size prior to ignition.

Secondly, fire activity on K21633 along the southeast flank was picking up in a lateral fire spread due to the SW winds that aligned with the fire's flank.

# Timeline of Events

At this point, the ignition goes ahead - here is the timeline on the burn window from dispatch and interview notes:

| | |
|---|---|
| 1400 | Start burn window (per FBAN interview) |
| 1430 | Branch green-lights aerial ignition (per Div Sup interview) |
| 1443 | DSN lifting Ajax bowser to 1620 |
| 1456 | Alpha IA off spot fire, "heading to potential burn close by" |
| 1501 | CTH off Squilax, pilot only, for 1620 ignitions |
| 1502 | CWJ off Squilax with Adams Ops, Adams Branch, Adams FBAN on board for recce of 1620 |
| 1508 | WZH off Squilax to 1620 - Helcos on board |
| 1520 | CWJ landed 1620 with Adams Ops, Adams Branch, Adams FBAN |
| 1520 | FBAN called prov Wx forecaster to confirm location of cold front and expected arrival (per FBAN interview) |
| 1526 | CWJ lifting 1620 with Adams Ops, Adams Branch, FBAN |
| 1615 | Helitorch starts ignitions (per Incident Report) |
| 1620 | CWJ landed 1620 with Adams Ops, Adams Branch, Adams FBAN |
| 1624 | CTH landed Squilax bowser |
| 1631 | CTH lifting from bowser for ignitions pilot only |
| | Adams Div check in - crews and equipment pulled off of S,SE as ignitions start. |
| 1635 | 2 IA crews prepared to support with hand ignitions |
| 1640 | CWJ lifting 1620 with Adams Ops, Adams Branch, FBAN for a recce |
| 1655 | Helitorch finishing (per Div Sup Interview) |
| 1700 | End burn window (per FBAN interview) |

The Burn Operation

Screenshot from the video

See https://www.youtube.com/watch?v=yXyng6eQPQg

The plan was to bring the fire above Lee Creek down to the powerlines and hang a section up above the Lee Creek drainage that had no viable option for a guard or retardant due to the steep riparian terrain.

The second phase of the ignition involved drawing the fire further east to capture some of the long-range spotting from the August 16th fire run. This ignition was conducted with a heli-torch (video) to produce the necessary fire intensity for working adjacent to the main fire. The intent was to draw air away from the control line along the identified powerlines and widen a fuel free area to prevent aggressive fire growth.

Ignition Operations


Screenshot from the video

The planned ignition was conducted in a pattern to draw the fire back towards the main flame front and strengthen the existing powerline guard with minimal intensity (video). At one point the burn torch went down, which caused a delay of 30 minutes. Favorable winds helped direct smoke away from the powerlines, creating a wider fuel break.

The only challenge remaining was lighting the final strip near the powerlines, considered unsafe for the helicopter due to the proximity to the major powerline. This left a small area under the powerlines with green timber and low vegetation, necessitating ground ignition to manage the risk with low-intensity fire.

As a safety precaution for the aerial ignitions that had been underway, the Alpha crew was requested to leave their spot fire and await further instructions at the Scotch Creek FSR. The spot fire was mostly contained but not completely held when this instruction was given around 14:00.

Part way through aerial ignitions, the Branch Director determined that the clean-up of the fire edge by the powerlines would best be done with ground crews. The Alpha crew was asked to prepare for this operation with the available resources they had.

# We haven't done this before

As the Alpha IA crew prepared for the hand ignitions on their line, they informed the Branch Director by radio that they did not have experience in ignitions and requested support. The Crew leader led an impromptu practice burning session for the crew members, all of whom were in their first or second year of service and had no prior experience with conducting ignitions.

A Task Force Leader (TFL) arrived on the scene and quickly recognized that his direct involvement would be necessary, given the team's limited experience. He had a radio discussion with the Branch Director on the objectives as there was not time or sufficient fuel to land and conduct a planning session. Both seemed satisfied with the plan and recognized there was going to be a long night ahead to complete this task.

While there was an additional Brazilian Crew of 20 individuals on scene, the situation posed a challenge due to language barriers, a shortage of tools, and the limited history working with this crew.  In addition, the road the crews were utilizing during the hand ignition operation was in terrible condition and extremely slow to navigate.

**For discussion:**

How do you get “in the zone” or into a “performance” state with a team or task that you’re not familiar with?

What are some ways to speed up this process? What are some things that slow it down?

Tools for the Job


Screenshot from the video

As the TFL discussed the objective with the Alpha IA crew and 20 Brazilians, they recognized that the available burn fuel was not properly mixed and contained a significant gas component, making it much too volatile to use. Equipment operators on-site contributed some diesel to the mix, resulting in a total of 2 or 3 jerry cans of burn fuel becoming available.

The team determined that the most efficient approach for hand ignition along the 9-kilometer fire edge would involve driving in and working their way outward with hand ignitions. The rough condition of the road made travel slow and arduous. Roughness of the road was evident even to observers in helicopters, who could see the lights bouncing up and down as vehicles travelled the road.

The Brazilian crews were assigned the task of holding operations. This objective allowed for these resources to operate in Portuguese and communicate with their crew leader who would remain with the ignition operation and TFL. The Brazilians planned to stage themselves at various points along the powerlines to patrol and respond to spot fires, making the best use of the hand tools at their disposal.

The Equipment Branch Director, who was familiar with the area, joined the team to support the hand ignition operation. As they travelled up the powerline road to the Lee Creek drainage, the fire beside them was displaying intense activity, with crown fires visible in the nearby trees. The crew was also concerned about the spot fire they had been working on previously, which was now located below them.

Hand ignitions started at 18:45, after the long and rough drive to the start of the ignition line above Lee Creek. As the crew became accustomed to using torches, they remained conscious of their shortage of burn fuel and the need to make it last. After approximately one kilometer of ignition supported by the vehicles, the first signs of shifting winds emerged. This change meant that intermittent smoke became a factor, but the operation remained within the established plan.

# Discussion - If you were the Fireline Supervisor?

These fireline supervisors are being faced with several challenges.

Consider the following obstacles:

-A crew with limited experience conducting a high-pressure, time-sensitive ignition.

-Out of country crews that you are unable to communicate with due to language barriers.

-Not having the appropriate tools needed for the job.

**Is there anything else you can see that would be challenging in this situation?**

Consider OSWS 9(opens in a new tab) and LACES,(opens in a new tab) as well as the 18 Watchouts and 10 Standard Fire Orders(opens in a new tab).

# Observing with Disbelief

From the HLCO platform, the developing situation was being observed with disbelief. Considering the substantial distance that still needed to be covered, and the time of day, it became clear that there were significant risks at play, and they (the HLCOs) would not be able to support the operation that would extend well beyond sunset.

At approximately 19:30 the first sign of change in the weather occurred with a short downslope wind shift. This brief change had people concerned about spot fires, however, it cleared up in a couple of minutes and there were no spots noticed.

The wind took another turn about 15 minutes later, at 19:45, blowing towards Scotch Creek east and downslope across the fire ignition area. This shift in conditions persisted for another brief but intense few minutes, this time spreading spot fires in multiple areas before resuming its upslope Southwesterly direction. The HLCO promptly alerted the ground crews to retreat for safety.

(Photo: 19:49pm, looking at the westernmost end of the ignition. Notice wind starting to shift.)

Compromised Escape

Screenshot from the video

(Video: Aug 17, 20:08 - East side of Lee Creek. Fire burning across the right of way.)

It became evident to the HLCOs that the only known escape route along the powerline trail was about to be compromised. Quickly, one of them used a personal mapping app to pinpoint an alternative escape route down Lee Creek FSR.

The HLCO relayed the alternative escape route to the ground resources, who were able to turn around and locate the road. However, the Brazilian crews were not receiving the message and were heading back towards the now escaping fire. One IA crew member sprinted ahead, flagging down the Brazilians. Once they were made aware of the alternative escape route, they promptly contacted the rest of the Brazilian crew and radioed instructions to gather all the vehicles, allowing them to exit as a convoy.

As they made their way towards the escape route around 20:10, they encountered a burn pile right next to the road, which had fully ignited and was too intense to drive past. The Equipment Group Supervisor's truck found an alternate route by navigating an off-road trail around the burn pile, but the deactivated trail had a steep shoulder and caused his truck to kick up on two wheels. The members of the crew following behind braced themselves for a rollover, but the truck righted itself and the convoy was able to carry on.

The rough road caused damage to most of the vehicles, however, the overwhelming feeling amongst everyone was one of immense relief once they had cleared several hundred meters along the escape route.

# One Truck Unaccounted For

(Image: 20:36pm, screen shot of Avenza map sent to ground resources with suggested ground escape route for entrapped Brazilians. Yellow circle was their location, red line indicated suggested route of travel through heavy timber, downslope to Scotch Creek FSR, approx. 2km)

For the HLCO, a very serious situation persisted. One truck remained trapped with no escape options. Despite the repeated radio calls, there was no effective communication; an interpreter was relaying messages to the crew. Efforts to convince the crew to hike out appeared to yield no movement on their part, which placed increasing strain on the HLCO.

An additional challenge was persuading the TFL and others that a crew was indeed entrapped. Initially, there was an assumption that the truck had gone to the other side, but the HLCO managed to get everyone to count the trucks, leaving one unaccounted for. This realization led many leaders to contemplate a rescue mission, but they were dissuaded to prevent the risk of additional casualties.

The Ops Chief was informed of the situation and requested to be kept updated.

# A Critical Situation

Screenshot from the video

Already on an extension from skids down time (20:24), the HLCO group departed with just enough light to reach the Squilax camp, landing in semi-dark conditions. Once at the camp, they informed the Deputy IC of what had unfolded; the news was met with a sense of disbelief. Subsequently, the HLCO team drove back to Kamloops in silence, believing that they had just witnessed a fatal entrapment.

The Branch Director, deeply concerned, had listened to the situation unfold on the radio. Upon reaching the staging area, he repeatedly questioned the Brazilian interpreter about the safety and well-being of the entrapped crew. Reassured that they were okay, he relayed this information to the IMT via the Safety Officer. The crew would need to remain in their position for a few hours until the fire activity along the escape route had subsided.

The Brazilian crew had chosen to remain in a relatively open area with light fuels, where they proceeded to burn the area round them with burning sticks and branches. Once this safety zone was established, they parked their truck and patiently waited for the fire to pass. While not a comfortable experience, they kept each other's spirits high despite the critical situation.

(Video: Brazilian crew waiting for fire to pass)

# Discussion - Wag Dodge & the Escape Fire


Have you heard of the Mann Gulch fire and the man Wag Dodge, who managed to save himself by lighting an "escape fire"?

What do you think about this tactic? Have you had to burn off to create a safety zone before?

Would you have considered it in this situation?

What are the common factors in fire entrapment?

Summary: https://en.wikipedia.org/wiki/Mann_Gulch_fire(opens in a new tab)

Full Analysis: https://library.fpinnovations.ca/media/FOP/8833.pdf


(Image: Location of where the Brazilian crew was entrapped)

# Retrieving the Brazilians

Once assured the entrapped crew was okay, the Branch Director shifted his focus to a new predicament: K21620 had now pushed past the final containment efforts and was now freely spreading in the Scotch Creek drainage, igniting spot fires in the Meadow Creek area. As he assessed these developing spots, the TFL joined him, assisting with debriefing and sending non-essential resources back to the camp. A decision was made to request Structure Protection Units to head to Meadow Creek.

Around 23:00, the Branch Director and TFL decided to see if they could retrieve the Brazilian crew. They paired up in one truck and bucked logs off the road as they drove in. They eventually reached the location of the Brazilian crew's truck. They found the Brazilian crew members asleep inside the truck, beginning to stir from the headlights of the truck. The crew was grateful and happy to be escorted through the smoke and safely back to camp. On August 18 at the early morning hour of 0230, the entrapped Brazilians arrived back at camp.

# When Extreme Fire Behaviour Impacts the Urban Interface

On August 18th, the Adams Lake fire led to devastating outcomes, including the loss of homes, the evacuation of a fire camp, and the need for many crews (BCWS, Structure Protection, Contractors) to retreat to safety zones.

**Note: The ignition operations discussed in the Burn Day slides above took place on the East Adams Lake fire (K21620), whereas it was the West Adams Lake fire (K21633) that led to the camp evacuation.**

# Early Morning Response

In the early hours of August 18th (02:30), Structure Protection Specialist (SPS) Jesse was woken up by a phone call from the IC. Strong southerly winds in the Scotch Creek valley, and upper-level westerly winds had spot fires igniting northeast of the fire into the Meadow Creek Rd area, prompting the request to take a task force to defend the structures being threatened. Jesse, accompanied by Task Force 10, arrived at K21620 at 03:18 to respond to spot fires along Meadow Creek Road. Task Force 10 collaborated with the Celista Fire Department, who'd been working through the night in this area.

03:29 Dispatch Update: AW16, AW17 in meadow creek have fire in both grids burning close to structures, up to the road and burning hydro poles, structure protection team is on site, SE corner

of fire has burned over Scotch Creek FSR at 5km, fire is hung up on hillside on AU13 and AT12 winds in meadow creek valley are from west, 30, 40 gusting 50km/hr, and in Scotch Creek Valley, 5-10 gusting 30 from the N.

# AARs and Sharing Experiences

At 07:00, the HLCO and Trainee came into the Fire Centre Manager's (FCM) office visibly distressed. The FCM was informed about the entrapment situation.

During the Kamloops Fire Centre 09:30 IC call (which included all ICs, Regional Management Representative and the RWCO), the IC provided operational updates and ongoing issues. He reported the safety incident and mentioned an upcoming debrief with the Ops team.

Later that morning, when the HLCOs arrived back at camp, they found the TFL and the Alpha IA crew visibly shaken from the previous night's events. An After-Action Review (AAR) led by the Ops Branch was held to allow people to share their experience. This process was helpful to acknowledging the incident, identifying learning opportunities and impacts on the people involved, despite the new and looming fire column in the background. This focus on debriefing and caring for each other was essential and highlighted the seriousness of the previous night's incident.

The Alpha IA and Brazilian crews agreed they weren't fit to work on the fire that day and instead took on camp tasks.

The IMT Safety Officer was involved in the debrief process and collected notes for a safety incident report. This was processed as a safety incident by the IMT and later was disclosed as a 24-Hour Report. (Note: a Joint Investigation was subsequently conducted in conjunction with the BCGEU as a follow-up to this incident. This was done at the request of worker and employer representatives to address inconsistencies in the safety reporting.)

**For discussion:**

The importance of prioritizing human safety and mental well-being is essential for a strong safety culture; taking the time to stop and reflect after significant events should be a top priority.

Have you ever felt the need for a debrief after a significant accident? What happens if there isn't one?

Would you consider this a Serious Near Miss worth reporting?

# IMT Coordination

The IMT now focused on command presence, continuous planning, communication, and flexibility in preparation for the impending impact of the cold front and significant fire growth.

Understanding that the expected fire growth would significantly impact their operations, they scheduled four meetings throughout the day, a higher frequency than usual, to ensure they could respond as swiftly and efficiently as possible. This proactive defense strategy demonstrated their commitment to adaptive management in the face of rapidly changing conditions.

# Daytime Progression

Up until now, the focus had been primarily on the East Adams Lake Fire (K21620), the ignition operation, and ongoing fire growth challenges. On the morning of August 18th, reports started coming in about activity increasing on the West Adams Lake Fire (K21633). This fire, which had previously been relatively quiet, was now producing a large column early in the day. The Fire Behavior Analyst focused on projecting the fire's growth and its potential impact on community assets and the fire camp, where all firefighters were based.

SPS Cameron arrived at the fire camp at 08:00 and received a briefing from SPS Jesse and Ops about the fire's approach south to the Holding Road area. The two SPS jumped in their truck to conduct a rapid assessment of the area. They met with the Bighorn Unit Crew (UC), who were already working on sprinklers near the road and fire smart activities around structures. Homeowners were present, many of whom were preparing to evacuate.

The reporting relationships and directions were becoming unclear, with the UC receiving orders from various sources, including two different Div Sups and the HLCOs. Eventually, the Bighorn Supervisor connected with the SPU crews and received direction to go and remove combustibles from around the houses. As the crews focused on this priority one objective for life and property protection, they conducted rapid fire smart assessments of properties, the Fire Stalker UC arrived and focused on one side of the road, while the Bighorns worked on the other side. As they worked, the Unit Crews were encountering residents who were fearful and unsure about whether to stay or leave along the escape route away from their homes.

# Community Evacuation

During the August 16-18 time frame, the Columbia Shuswap Regional District issued a series of updates, evacuation alerts and orders:

- Evacuation Alert(opens in a new tab) for Lee Creek was issued Aug 16, extending(opens in a new tab) into Scotch Creek the same day.
- Evacuation Order(opens in a new tab) was issued for Meadow Creek Road on Aug 17 at 23:00.
- Evacuation Alert(opens in a new tab) expanded for Meadow Creek, Line Road on Aug 18.

The Shuswap Emergency Program posted an update on August 18, 2023 at 11:30: "The Shuswap Emergency Program is preparing for the chance the Evacuation Alerts currently in place for Lee Creek and Scotch Creek will be upgraded to Evacuation Orders. That has NOT happened yet, but the wind situation is not favourable for this afternoon. Now is the time to prepare yourself for an evacuation."

Shortly after this was released, fire activity started to pick up and alerts turned to orders:

- Evacuation Order(opens in a new tab) was issued for Dorian Bay, Woolford Point and Enns Reach on Aug 18 around 12:00.
- Evacuation Alert(opens in a new tab) expanded for Celista area and Scotch-Lamberton FSR area on Aug 18 around 12:30.
- Evacuation Order(opens in a new tab) issued for Lee Creek and Scotch Creek Aug 18 at 14:15.
- Evacuation Order(opens in a new tab) issued for Celista area up to Evans Road Aug 18 at 16:00.
- Evacuation Order(opens in a new tab) expansion for Magna Bay Area Aug 18 at 19:15.
- Evacuation Order(opens in a new tab) issued for Little River Road area Aug 18 at 19:30.

One of the complicating factors was the single road exit from the area. Given that any delay in moving significant numbers of people could risk creating a traffic jam, organizers were focused on traffic flow.

The Shuswap Emergency Program (SEP) requested support from the RCMP, Shuswap SAR and Royal Canadian Marine SAR (RCMSAR) for evacuation by boat from the North Shuswap on August 18th when the Squilax-Anglemont road to the Trans-Canada Highway was no longer an option due to the wildfire. SEP organized buses to meet evacuees arriving by boat in the South Shuswap at Blind Bay. In addition, many private boat owners acting independently took it upon themselves to transport residents off the North Shuswap. Many evacuees also travelled by vehicle northeast on Squilax-Anglemont road to Anglemont and Seymour Arm where they were supported by the Shuswap Emergency Program and local volunteers.

# Advancing Flame Front

Around 13:00, fire activity starts to pick up and multiple events start occurring on the Adams Lake Complex:

13:00 During one of the tactical planning meetings, the fire was ~9km away from camp. A trigger point of the powerline NW of camp was established which would dictate camp evacuation.

Evacuation of Lee Creek, Loakin-Bear Creek Road and Skwlāx te Secwepemcúl̓ecw (Little Shuswap Indian Band) ahead of the advancing flames had become a top priority, mobilizing all

available resources. Everyone capable of assisting with door-to-door notifications and evacuations immediately transitioned to that task.

13:00 SPS Task Force 10 were instructed to withdraw from the Meadow Creek area and return to the Celista staging area due to escalating fire behavior from K21620 and evacuation order. With the advancing flame front from the Scotch Creek Valley, residents who couldn't drive past the approaching flames had to shelter in place and many ended up at the Shuswap Lake Park as the selected safe zone. Residents were trying to evacuate by boat, challenged by the wind and stress of the circumstances.

15:00 SPS Jesse and Cameron saw that the fire had spread to both sides of Holding Road from K21633. They started to drive into the area to assess the situation; structures that were fine a few minutes prior were now fully engulfed. They watched as the fire rapidly crossed the road in front of them, jumped the river, and ran back up the hill on the other side. SPS Jesse: “Fire behaviour like I’d never seen before, we drove with flames and smoke all around, difficult to see the yellow line on the road. We found ourselves in a position we’ve always instructed people to NOT get in.”

Now that they were cut off from objectives ahead of the fire, they had to retreat to the saw mill safe zone with all the other resources from K21633 and wait out the fire for their next viable objective.

# Hell Coming out of a Mountain

Ops Chief: “This is unforgettable for me; the level of intensity and speed the fire moved. For a person not experienced in fire this would have looked like hell coming out of a mountain.” All fires became extremely aggressive and started to make rapid moves in multiple locations.

15:30 SPU Task Force 11, working around Holding Road, were ordered to the sawmill safety zone to regroup. The fire was actively pushing past their secondary escape route along the Adams Forest Service Road. After approximately an hour, they re-engaged along Holding Road; at that point multiple structures were fully engulfed, and many other structures were threatened.

When SPU crews returned to the Holding Road area, tensions among residents were high. SPS Jesse recounted that citizens were coming out in shorts and flip flops trying to extinguish spot fires. “We tried to explain that they weren’t really helping, we were starting to see trees coming down, burning power poles, and downed electrical wires." This was an unsafe situation, and they were focused on trying to prevent people from getting hurt amidst a catastrophe.

As the day progressed, the Bighorns UC had moved from structure protection along Loakin-Bear Creek Road down to protect the bridge to Scotch Creek as a critical infrastructure objective. These top priority objectives were the main focus of the incident now to ensure that the aftermath of this day was going to allow for recovery and ongoing support.

Frustrations escalated when locals repeatedly took essential equipment—bladders, hoses, and pumps—three times in one day. The residents were under the impression that BCWS had abandoned them. This led to growing animosity among everyone involved. Despite these challenges, structure defense and protection operations continued throughout the night on Holding Road, with crews rotating on a four-hour work-rest cycle.

As the day progressed, the Bighorns UC had moved from structure protection along Loakin-Bear Creek Road down to protect the bridge to Scotch Creek.

15:30, the IC announced that the fire would reach the camp after receiving confirmation of the fire's progress exceeding projections from the Fire Behaviour Analysis. Evacuating personnel's belongings became a major priority. In the camp evacuation plan, the marshalling point was Chase, but it was eventually decided that it would be the Kamloops Fire Centre (KFC).

The logistics team devised a plan to demobilize everyone's tents and gear. Given the fire activity and the time of day, most people were out working, and the camp had limited personnel present. The 3-person Information team began overseeing all available resources in camp packing up people's belongings. The coordination of this evacuation entailed packing up the belongings of the roughly 400 people staying in the camp; a significant workload for the small team on site. All belongings also needed to be loaded into whatever trucks were sitting at camp, which was another significant undertaking for the small team.

The urgency of the situation led to hasty demob of tents and personal belongings to be transported to a yet-to-be determined muster point. Taking down tents became a limiting factor, so the team refocused on simple, identifiable (where possible) and clear solutions around managing personal belongings in large bags sealed that could meet the challenge. As the evacuation unfolded, an increasing number of individuals joined the camp to lend a hand, pitching in to load items into any available vehicles. Initially, there were conflicting instructions on the destination of all the belongings. Eventually, McArthur Island, a large municipal park located near the Kamloops Fire Centre was selected to receive the evacuated camp.

16:30 The Info and Logs team, with the help of those present at the camp, worked to pack every available vehicle with people's belongings (passports, laptops, medication), supplies and equipment. This entailed moving vehicles into the tent area, loading them up, and returning them to their original parking spot.

17:00 The Bighorns next objective was to support the camp demob. They arrived at camp to a scene of bustling activity, as individuals hastily packed belongings into garbage bags and called on crew members to drive vehicles out of the camp. Coordinating truck keys and accessing vehicles proved challenging, adding an extra layer of complexity to the logistics of packing up and relocating tents and other items. Despite the apparent commotion, there were people who knew a plan was in place, and everyone was actively involved in the evacuation, each tackling different tasks.

17:00 SPS Task Force 10 was called back to Celista to re-up the equipment on the bridge because the current structure protection set up had been stolen.

Throughout the evacuation, the Logs Chief was in constant contact with an Asset Management Assistant at KFC, who was coordinating receiving everyone at the marshalling point, which was finalized as being McArthur Island.

As the wildfire approached camp, the primary focus shifted to safeguarding structures and infrastructure. The Bighorn crew took charge of structural defense, setting up sprinklers on trailers. Simultaneously, the Logs team worked diligently to remove combustible materials from around the trailers. They also made sure all windows and doors were securely closed, leaving notes on each door as they went. A guard was put in around the perimeter as embers started to cast into camp.

The situation became more intense as the fire neared the camp. Bighorns Supervisor could see Brazilians and water tenders scattered around the field as the fire moved through the nearby forest. Fire was spotting everywhere. Even the catering staff were dealing with flaming cardboard in the dumpsters.

When the Ops Chief blew the airhorn just before 19:00, there were still fire crews and essential overhead staff in camp. As the Bighorn Supervisor led his crew away from the camp, he expected a tight-knit convoy of crew trucks. However, a delay occurred when the crews were re-tasked to assist with driving other vehicles out. The change in fire behavior and road conditions from the Supervisor's departure to the departure of the rest of the crew from camp was quite significant. As the crew exited the area, they found themselves driving through the fire that had by now spread beyond the camp.

# Shut Down Highway 1

Following the final evacuation of camp near 19:00, the IC and remaining personnel exited camp and drove across the Squilax Bridge and proceeded to head out along Highway 1. Everyone but the IC headed west; the IC went east to stop traffic that was still proceeding through the highway even though there was fire on both sides of the road by this time.

The Fire Centre Manager (FCM) received a call from the IC during the evening requesting the immediate closure of Highway 1 from Chase to Sorrento. The FCM contacted the Ministry of Transportation and Infrastructure (MOTI) to initiate the closure of the highway. Roughly fifteen minutes later, the IC called from Tappen, saying he wasn’t able to get to Chase. He described the rapid advancement of the fire and confirmed that everyone had been evacuated from camp, with himself and the Deputy IC being last on site. He remained committed to ensuring public safety by keeping the highway closed until formal traffic control could be implemented and the road cleared and deemed safe.

The FCM went to the Provincial Wildfire Coordination Centre (PWCC) around 22:00; the Provincial Wildfire Coordination Officer (PWCO) expressed concern about the entrapment incident the day prior and the escalating difficulties associated with the camp evacuation and its

significant logistical challenges. This fire had become a significant interface and public safety challenge with anticipated impacts lasting months, and unfortunately, it was not the only one in the province with such tragic consequences.

# Recovery at McArthur Island

When the evacuated firefighters reached the marshalling point at McArthur Island, KFC had organized supplies and provisions. Moving and then managing to feed a camp of approximately 400 personnel presented a significant challenge and placed considerable pressure on those in charge of caring for everyone, but the staff rose to the occasion.

Setting up tents became a concerted effort; not everyone had arrived from the field yet. The most challenging aspect was reuniting individuals with their belongings, a particularly stressful task.

The combined Info and Logs team developed a system to ensure that people's belongings were claimed. They guided limited groups through the bags as they entered the MacArthur arena from the vehicles as they arrived. This went on for several hours (approximately 19:00-24:00), and not all the belongings were claimed by the time the team left for the night. Info Assistant: “In the moment of evacuation, we were trying to pack up quickly. In terms of organization, you never really expect stuff like this to happen. It was very difficult to differentiate what went where, and it took a long time for people to find their stuff. It was also extremely hard to communicate when pretty much over 50% of the camp knows no English at all”.

One of the challenges arising from not knowing whose belongings were being packaged was the frustration and time-consuming task on the receiving end, where people had to search through multiple bags to find their own items. This risk was managed with privacy and security as the guiding principles of the recovery effort was to ensure everyone got their stuff and were not rummaging through bags unnecessarily. It was noted that the BCWS Red Bags were a lifesaver for returning items to their owners; everything fit and names are right on them.

Extra staff from KFC were there to help on a short (2 day) loan from the fire center to assist with this monumental task of setting up a camp overnight. One Operations Assistant (OA) on loan was the liaison/interpreter for all Brazilians and Costa Ricans (around 200 people). The OA was helping Brazilians find their belongings; there were missing passports, missing medications. This helped bridge a major gap in how we took care of our international partners.

# Reflections and Continuous Learning

August 18th was described by many interviewees as the “busiest day working for wildfire”. The IMT was on the 4th day of their two-week deployment and continued to work the Adam’s Lake Complex; single-resources, crews, and other resources had varied amounts of time left on the incidents.

There was demonstrated courage, teamwork and dedication shown by many people during their time at the Adams Lake Complex.

From the Adams Lake Camp evacuation, the BCWS was able to identify successful practices to use in the upcoming fire seasons. This includes standardized methods of identifying personal gear, clear and concise camp evacuation plans, and best practices for communication when there is an incident within an incident.

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## ● ● ● ● ● ● ● ● ● ● ● ● For Discussion

Many individuals referenced the overwhelm of the BCWS as an organization. Crews, IMT's, Zones and RWCC's were stretched well beyond their usual capability. When situations move quickly, people are bound to make mistakes. How can BCWS avoid negative outcomes in these situations?

What challenges exist when agencies, communities or the public don't understand the limits of BCWS capabilities and capacity? How can you as an individual contribute to a solution?

What can you do to prepare for an event like a camp evacuation?

1. Before a deployment?
2. During a deployment?

How do you share your personal lessons learned and your knowledge with others?

## From Then On

From August 18th onwards, political pressures mounted, leaving members of the public to contend with a tragic aftermath. Theft of equipment, friction with impacted residents, and a continually active forest fire left BCWS staff with new challenges and little time to process the previous days events. This catastrophic event left everyone in a state of disarray, compounded by geographic separation between the new fire camp, the fire, and the Incident Command Post, which all spread the divide between responders, leaders, and the public.

Duty in the face of adversity was a common theme amongst the public servants that faced the negative aftermath of these days.

# The Impact Critical Incidents Have

For many days after the fire's extreme growth and camp/community evacuation there was a notable impact on the incident management. Incident planning and sense making was a challenge on the heels of this major disruption to the incident. The entire landscape and scope of work had changed, and the ability to assess impact from the air and ground was limited due to smoke and visibility issues. Meanwhile, multiple concurrent social, infrastructure and fire related emergencies needed to be managed in the aftermath of the August 18th fire spread.

The toll of moving and rebuilding basic incident infrastructure after the camp evacuation and associated move of the Incident Command Post created a lot of challenges. Basic living accommodations needed to be set up, crew personnel had to sift through bags to find their rapidly packed belongings and providing food for so many people throughout the unplanned move was a huge challenge. Many people took things well in context of the situation, but it was nonetheless difficult to be camping out and not having a place to call “home” after an exhausting ordeal.

Everyone who experienced the dramatic days covered in this FLA had different reactions and relayed different experiences. Sense-making was different for people based on how these events showed up in their lives, however one theme emerged for most, which was that the events triggered people’s individual stress reactions. These reactions all emerged in different ways and on time scales for everyone involved.

# Leadership

The reaction of many leaders set the tone for how their coworkers and community members experienced the next few days and weeks. Some leaders were able to demonstrate compassion, and others struggled to focus on anything other than what was lost or missing. In all cases, the responses by leaders set a certain tone for their colleagues over the coming days.

Leadership under these circumstances did show up in many ways, from extra efforts to find and send mental health supports to the incident to careful check ins and tactical planning for care of people. Going back to work can help to reorient and redevelop a sense of structure and organization. However, many of the efforts made to support people appeared to fall short of what the situation demanded and showed opportunities for leaders to re-establish the tone and structure that staff required. Resilience was hard fought, burn out was real and everyone had to dig deep to rise to the occasion in a professional manner.

Some leaders and/or agencies that reacted with isolation and blame manifested toxic environments that damaged working relationships and eroded the ‘All of Society’ approach required to see people through these tough times. This self-interested inability to participate collectively may have had different root causes from agenda seeking, rejection, fear, or inability to operate at the scale of the situation. All of these conditions being normal reactions to stress and overwhelm were directed in many ways, including towards government employees and IMT members trying to make the situation better. The tone of professionalism under duress was a

noted strength of many, despite the significant pressure and multiple priorities placed on people trying to navigate extremely difficult circumstances.

In other cases, leaders actively engaged in finding resources for co-workers and members of the public found meaning in carrying out little acts of kindness. Many took time to stop and talk with peers or people in crisis and try to assist in their sense making. Displays of compassion and care were often subtle and private, including lending a hand, listening in confidence, or allowing the hard emotions of the situation to be shared by a person who understands. This part of the story was overshadowed by the overall situation and more overt displays of upset, however many people interviewed relayed some form of leadership and compassion showed by peers.

# How Leaders React Matters

So, how do the reactions of leaders matter? The FLA team identified two key themes on this topic. First, people want their leaders to acknowledge when something difficult has happened, empathize with their experiences, and give them a chance to process it as an individual, peer group or team. Use of an After Action Review allows people to be heard after this sort of event is key.

Note: Feedback from some individuals involved in these events highlighted that in overwhelmed states, meaningful dialogue can be challenging due to high stress levels. People may become emotionally shut down and may not immediately access their feelings about the incident. Therefore, conducting an After Action Review may not be feasible in all cases or on a large scale, and it may be necessary to allow time for individuals to calm down from 'Fight or Flight' responses. However, the effort to follow up after a critical incident of any sort can be important, even if it is further down the road.

Second, trying to determine who was “right” or “wrong” in each situation is not productive in maintaining relationships. Understanding that no one wakes up in the morning planning to make a mistake, and rather trying to understand how a given decision made sense to someone at the time, is a much more productive lens through which to support people who have just been through a crisis.

Leadership was also closely linked to the people in their charge’s capability. One common theme that emerged in many peoples experience was that the people they worked with may have been new to their role or a wildfire organization structure. This sense making and training in the flow of work can be stressful on both the leader and the people they oversee. All people worked to contribute meaningfully to a positive outcome and most leaders had to recognize the ability to deliver against the requirements of the moment and make decisions to limit risk, delegate important tasks and select achievable goals.

Numerous experiences emerged during these events, each bringing forth diverse impacts and consequences shaped by various factors, ranging from power dynamics within the

incident and organization to individuals' familiarity with similar situations. Here are some of the experiences we heard about during the interview process (click the > button below).

Insights from Operations

- If you are the only person qualified to do a task (eg ignitions), you may have to prioritize that task to the detriment of your other responsibilities.
- It is tough to ignore a pre-built line like the powerlines that would work well, compared to something else that would take 8-10 days, which was more time then we had.

Insights from the Information Team

- We strived to maintain transparency with the public ahead of the weather event, recognizing the balance between providing accurate information for informed decision-making and avoiding unnecessarily alarming individuals.
- The challenge of combatting misinformation afterwards was huge. This wild narrative fed public unrest and was an ongoing struggle for the team and others.

Insights from the Fire Behaviour Analyst

The intent of the burn was to remove fuels between powerline and K21620 prior to forecasted wind shift on Aug 17 to reduce intensity of K21620 and reduce spread to the SE towards communities and values in the North Shuswap area during forecasted NW wind event on Aug 18. The limits of this tactic were from 2 known spot fires that were north and east of the proposed line that could not be safely actioned.

Insights from the Crews

- When confronted with challenges, we felt pretty good about adapting and problem solving as required.
- Some crew members had a positive experience throughout this high stress situation; with others, impacts were more apparent later as post-stress impacts surfaced.
- When things got hectic, the lack of briefings and situational awareness hindered the understanding of the overall picture, resulting in an elevated mental toll and reduced ability to adapt to changing conditions, thus increasing safety risks.

Insights from the RWCC Staff & Management

- Aug 18 was the busiest day some had ever witnessed at the RWCC, with multiple fires erupting across various zones, necessitating the continual addition and expansion of evacuation areas throughout the day.
- Due to a shortage of resources, staff members were compelled to take on additional roles and responsibilities to meet the moment, at the expense of 'something'.

Insights from the HLCOs

- Having a front-row seat to something you suspect will go horribly wrong is profoundly impactful.
- All 3 HLCOs experienced a sense of powerlessness as they watched from the air, trying to avert a potential tragedy.

Insights from the Operations Branch Director

- It felt as though there was a sudden shift towards the decision to burn, “okay, yeah we are burning”. Plans were changing in the flow.
- Had a gut feeling that the crews would have to move faster, fearing they “might lose the burn window” for hand ignitions. The transition from beginning ignitions, to realizing the benefit of hand lighting, to the burn window closing, felt short.

Insights from the Task Force Leader

- Being dropped into a major operation with only a verbal radio briefing inevitably leads to gaps in planning and situational awareness.
- Secondary escape routes were not considered or identified prior to the hand ignition operation; the team felt fortunate to have found a secondary escape route when their initial entry point was no longer an option.

Insights from the Camp Evacuation

- While the Info team was leading the dismantling camp for evacuation, the contents of some people's tents was shocking – prompting consideration that there should be a standard on how to leave your tent for the day.
- One BCWS member was helping evacuate camp and noticed a Costa Rican crew member running behind her vehicle; he pulled the handle and jumped in, not speaking any English. He had been left behind by his crew during the evacuation.
- Some contractors expressed dissatisfaction that their belongings had been handled without their consent.

- There was only a single road out of camp, which passed directly through the advancing flame front. There were apprehensions about vehicles breaking down, some individuals expressed fears of personnel being struck by exiting vehicles.

Insights from Structure Protection

- The presence of individuals wearing red shirts (BCWS) during a crisis communicates a message to the community: their presence was viewed positively when they were actively involved, but turned negative when they had to retreat for safety reasons, leaving the community to speculate and feel abandoned. This sense of abandonment is compounded by the lack of government engagement.
- Reconciling the differing priorities between locals and professionals was challenging (theft of equipment that was protecting vital infrastructure such as bridges to protect personal belongings/homes).

Insights from the AAO

Faced with two critical missions—protecting both the camp and nearby homes—but lacking resources for both, the decision was made to prioritize safeguarding the homes. Upon arrival, it became evident that there was little that could be done around the camp, as spotting had already occurred in the vicinity.

## ADAMS LAKE FLA TEAM

Chris Spronken

Laura Creighton

Stefan Hood

Suzanne Pearce

Bryce Moreira

Steffyn Hunt

Kathleen Jackson

In the early hours of August 18th (02:30), Structure Protection Specialist (SPS) Jesse was woken up by a phone call from the IC. Strong southerly winds in the Scotch Creek valley, and upper-level westerly winds had spot fires igniting northeast of the fire into the Meadow Creek Rd area, prompting the request to take a task force to defend the structures being threatened. Jesse, accompanied by Task Force 10, arrived at K21620 at 03:18 to respond to spot fires along Meadow Creek Road. Task Force 10 collaborated with the Celista Fire Department, who'd been working through the night in this area.

03:29 Dispatch Update: AW16, AW17 in meadow creek have fire in both grids burning close to structures, up to the road and burning hydro poles, structure protection team is on site, SE corner of fire has burned over Scotch Creek FSR at 5km, fire is hung up on hillside on AU13 and AT12 winds in meadow creek valley are from west, 30, 40 gusting 50km/hr, and in Scotch Creek Valley, 5-10 gusting 30 from the N.