

From: Bethany.Paul
Sent: May 23, 2024 8:54 AM
To: Jennifer.Sharp; Zoe.Westerby
CC: Darrin.Sinclair; Luc.Bibeau
Subject: RE: Neighbourhood Stakeholders by copper haul

Thank you, this is really helpful!

I definitely agree, in person discussions are super key for this project. I also would like to meet before my leave to chat about slash and debris, and fire mitigations in general. I suspect we will use some of the mitigations on harvest season from Quill.

Thanks!

Beth

From: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Sent: May 23, 2024 8:51 AM
To: Bethany.Paul <Bethany.Paul@yukon.ca>; Zoe.Westerby <Zoe.Westerby@yukon.ca>
Cc: Darrin.Sinclair <Darrin.Sinclair@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: Neighbourhood Stakeholders by copper haul

Hi Beth,

I've attached a list here. Whitehorse Copper doesn't have a community association but they do have a Facebook page that we have used to communicate with them, or perhaps organizing a meeting with them in conjunction with both the Wolf Creek and Mary Lake Community Associations as they use the trails back there extensively.

I believe Luc and Devin are meeting next week at some point with FMB to discuss projects in general, however we strongly recommend that in person meetings are held with the involved groups listed prior to the maps being made public.

We also should discuss how the project will ensure that risk reduction measures will be in place during commercial or personal harvesting (slash and debris).

Thanks!



Jennifer Sharp
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: Bethany.Paul <Bethany.Paul@yukon.ca>
Sent: Wednesday, May 22, 2024 10:36 AM
To: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>; Zoe.Westerby <Zoe.Westerby@yukon.ca>
Cc: Darrin.Sinclair <Darrin.Sinclair@yukon.ca>
Subject: Neighbourhood Stakeholders by copper haul

Hello fire friends!

Do you have a list of community stakeholders who may be interested in hearing from FMB as we work on developing the copper haul fuel abatement THP?

The attached map shows the broad THP area, we are cruising in there all month!

Thanks!

Beth



Bethany Paul
Forester
Energy, Mines & Resources | Forest Management Branch
867-334-2838 | Yukon.ca

From: Jennifer.Russell
Sent: June 4, 2024 10:50 AM
To: Luc.Bibeau
CC: Jennifer.Sharp; Zoe.Westerby; Neal.Allison; Julie.Houle
Subject: RE: SL FRMP Implementation Group

Hi Luc,

Reassembling the implementation group is still a high priority for us.

We've heard from KDFN that they want to restart the implementation working group, however they didn't have any capacity to participate and have requested funding. We've also asked them to participate in the reviews of the new Marsh Lake THP and in the work to develop the Copper Haul and Km 1440 fuel abatement THPs. We've offered \$10,000 to hire a consultant (Roger Brown) to participate on their behalf in the THP development and, if the working group does start up, they could lean on this consultant to support their participation.

As for CTFN and TKC, we haven't had clear indication that they want this group to restart. TKC seems pretty focused on working directly with us on an operational level and we are meeting regularly with CTFN on the new Marsh Lake and Lubbock THPs.

I am thinking we might just have to set up an initial meeting to see if we can bring everyone to the table that way. I just need to confirm this approach with Michelle before taking this step. I will let you know soon!

Thanks,

Jenny

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: Tuesday, May 28, 2024 8:39 AM
To: Neal.Allison <Neal.Allison@yukon.ca>; Jennifer.Russell <Jennifer.Russell@yukon.ca>; Julie.Houle <Julie.Houle@yukon.ca>
Cc: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>; Zoe.Westerby <Zoe.Westerby@yukon.ca>
Subject: SL FRMP Implementation Group

Good morning,

Has there been any movement on the Southern Lakes FRMP Implementation group recently? With the release of the Southern Lakes Wildfire Strategy from C/TFN and KDFN I wondered if there's been any news.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Zoe.Westerby
Sent: June 27, 2024 8:46 AM
To: Dawn.Hansen
CC: Bethany.Paul
Subject: FS in Wolf Creek Area
Attachments: THP_CopperHaul_Fuel_Abatement.pdf

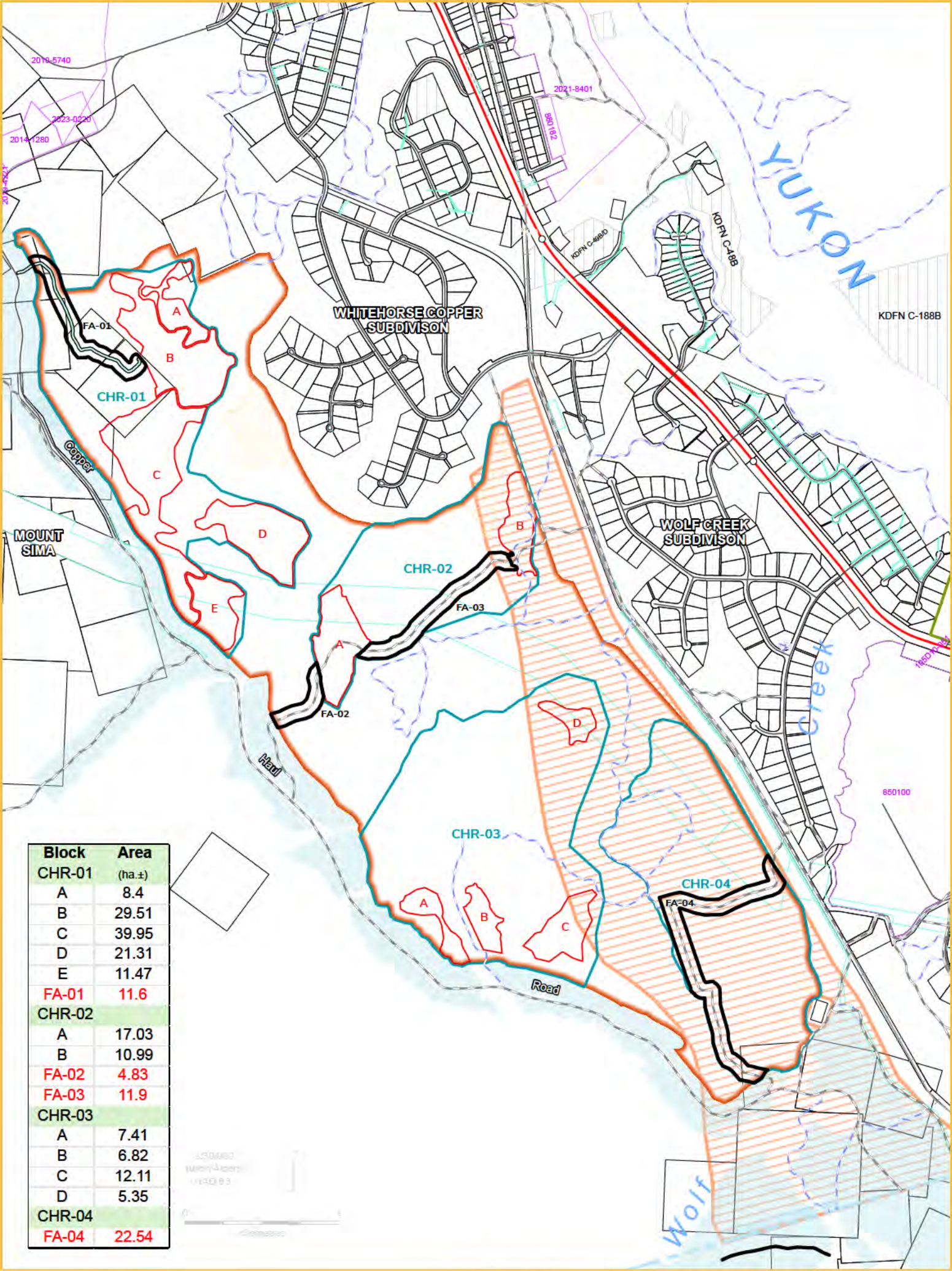
Hi Dawn,

Beth works at FMB and is working on a fuel abatement timber harvest plan between the Whitehorse Copper and Wolf Creek subdivision and Copper Haul Road. Can you please package up and send her the FireSmart areas in the vicinity of her map extent (see attached) to help with her planning?

Thanks,



Zoe Westerby
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-332-6560 | Yukon.ca



Block	Area
CHR-01	(ha.±)
A	8.4
B	29.51
C	39.95
D	21.31
E	11.47
FA-01	11.6
CHR-02	
A	17.03
B	10.99
FA-02	4.83
FA-03	11.9
CHR-03	
A	7.41
B	6.82
C	12.11
D	5.35
CHR-04	
FA-04	22.54

Overview: Copper Haul Fuel Abatement

FRMP:Dawson

THP STATS

WHSL FRMP
THP Area: 1084 ha ±
CHR-01: 201 ha ±
CHR-02: 117 ha ±
CHR-03: 219 ha ±
CHR-04: 167 ha ±
Date: June 26, 2024

For more timber harvest information, visit our website:
www.yukon.ca
Forestry spatial data managed and maintained by the
Forest Management Branch, Yukon Government. All
other spatial data provided by Geomatics Yukon.

THP Location



Project Specific Features

- THP Location
- Draft Operating Units
- Draft Harvest Blocks
- Fuel Abatement Blocks
- Fuels Management Blocks
- Potential personal use fuel wood.
- Designated PUFW Areas
- Forest Resource Road (Act)
- Existing Access
- City - Multi-Use Trails
- City - Single-Track Trails

Land Administration

- Parks and Protected Areas
- Land Dispositions
- Surveyed Land Parcels

First Nation Administration

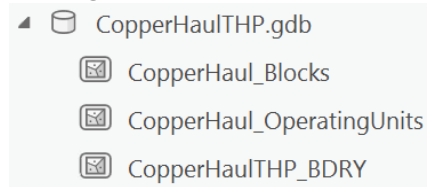
- Surveyed Settlement Lands

From: Sue.Deforest
Sent: June 27, 2024 10:12 AM
To: Bethany.Paul
CC: Zoe.Westerby; Jennifer.Sharp
Subject: RE: shp files of draft copper haul blocks

Hi,
I put a geodatabase on a shared network folder. Please move it to a more appropriate location.

[\\emr-fs\interdept\ERM-CS\Wildand_fire\Sue](#)
You will see in there the geodatabase for the Copper Haul THP.

In the geodatabase are:



The Blocks feature has all the associated areas including, harvest blocks, fuel abatement area, and PUFW areas. See the comment field to differentiate them.

Sue Deforest

Spatial Database Administrator | GIS
Energy, Mines and Resources | Forest Management Branch

From: Bethany.Paul <Bethany.Paul@yukon.ca>
Sent: Thursday, June 27, 2024 8:39 AM
To: Sue.Deforest <Susan.Deforest@yukon.ca>
Subject: shp files of draft copper haul blocks

Hi Sue

Can you send me the shp files of the draft copper haul thp harvest blocks (fuel abatement blocks and regular commercial blocks)? WFM wants to see how they work in the fire behaviour modelling program they just received training in.

Thanks!

Beth



Bethany Paul

Forester
Energy, Mines & Resources | Forest Management Branch
867-334-2838 | Yukon.ca

From: Zoe.Westerby
Sent: July 3, 2024 9:14 AM
To: Keith.Fickling; Conner.Lee
CC: Jennifer.Sharp
Subject: fuel abatement thp
Attachments: THP_CopperHaul_Fuel_Abatement.pdf

Hi guys,

I know you are busy right now but I'm reaching out because Forest Management Branch is in the process of developing a fuel abatement timber harvest plan located between the fuel break and Whitehorse Copper / Wolf Creek subdivision. See attached map.

The purpose is to open up harvesting activities that will thin or fragment the forest. They are in early stages of planning but we met with them a week ago to give some feedback. Feedback included buffering any motorized trails with fuel treatments so firefighters have safer access into this area for suppression activities. They also added CHR-04 which is an operating unit that would be set aside for us to conduct fuels treatments in if we wanted to.

I'm passing this on in case you guys have some feedback. This could include adding blocks for fuel abatement activities, landings for helicopters or terms that would go into permits about debris disposal/burning/venting index/etc.

There is lots of time to offer feedback so no rush. They are trying to wrap this up late August/early September is my understanding. They said they'll have more details about road alignment and landing locations in early August.

Let me know if you want to chat or meet with FMB directly.

Thanks,



Zoe Westerby
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-332-6560 | Yukon.ca

Piece Size Terms

“Debris” – Any organic material that is greater than 8” on any axis including non-merchantable timber, forest products, tops, limbs, needles, etc within the Site.

“Coarse Woody Debris” – dead and downed wood including logs, large branches and coarse roots that have entered a stage of decomposition where it is sagging into the ground and there are no twigs, branches or bark.

For most of our projects =

1. The Contractor must dispose of all non-merchantable timber and debris.
2. The Contractor must dispose of debris by mulching, raking, burning it in piles, or using another method approved by the Project Manager.
3. The resulting debris left on the Site must meet the following conditions:
 - a. the debris is less than 8” (20cm) on any axis;
 - b. the debris is less than 8” (20cm) in depth;
 - c. the debris is spread evenly across the Site.
4. Coarse woody debris may be left on-site for ecological purposes.

A more achievable piece size =

1. The Contractor is permitted to dispose of debris by mulching, chipping, raking and removing from site, raking and piling debris to be burnt or any other method(s) approved by the Project Manager.
2. The resulting debris left in the project area must meet the following specification:
 - a. the debris is less than 11.8”(300mm) on any axis;
 - b. the debris is less than 11.8”(300mm) in depth;
 - c. the debris is spread evenly across the Site.

Other Terms:

1. Stumps to be cut as close to the ground as possible and may not exceed a height of 10cm from the root taper with an angle of less than or equal to 10 degrees.
2. All healthy deciduous must be retained. Deciduous trees in poor condition may be considered for cutting to promote suckering.

Burning Terms

1. Burning of debris must be as per the following terms:
 - a. The Contractor is prohibited from burning during the fire season defined as the period of April 1 – September 30.

- b. The Contractor holds a valid burning permit from the City of Whitehorse.
- c. The Contractor complies with City of Whitehorse bylaw 2000-01 Emergency Services Bylaw and the conditions of their permit.
- d. Piles must be a minimum of 15 metres away from adjacent forest or retained trees.
- e. Burning must be at least 5m from established trails and parking areas.
- f. Burning must not damage retained trees or be conducted on any known squirrel dens.
- g. The burning results in complete combustion of the piled material (95% or greater). Piles must be continuously raked and burned until this target is met.
- h. The piles must be ignited using propane torches if accelerants are required for ignition.
- i. The Contractor only starts as many burns as they can reasonably monitor and control at any given time.
- j. Piles must be monitored each day the Contractor is burning. No piles will be left unattended. Piles must be completely extinguished when not attended and/or at the end of each working day

Venting Terms:

1. Burning must only occur during periods of good venting or when area winds are such that adjacent properties are not adversely affected by smoke. Please consult the Project Manager if unsure if conditions are correct.
2. The Project Manager reserves the right to shutdown burning to mitigate social and environmental concerns.

Fuel Fragmentation Wording

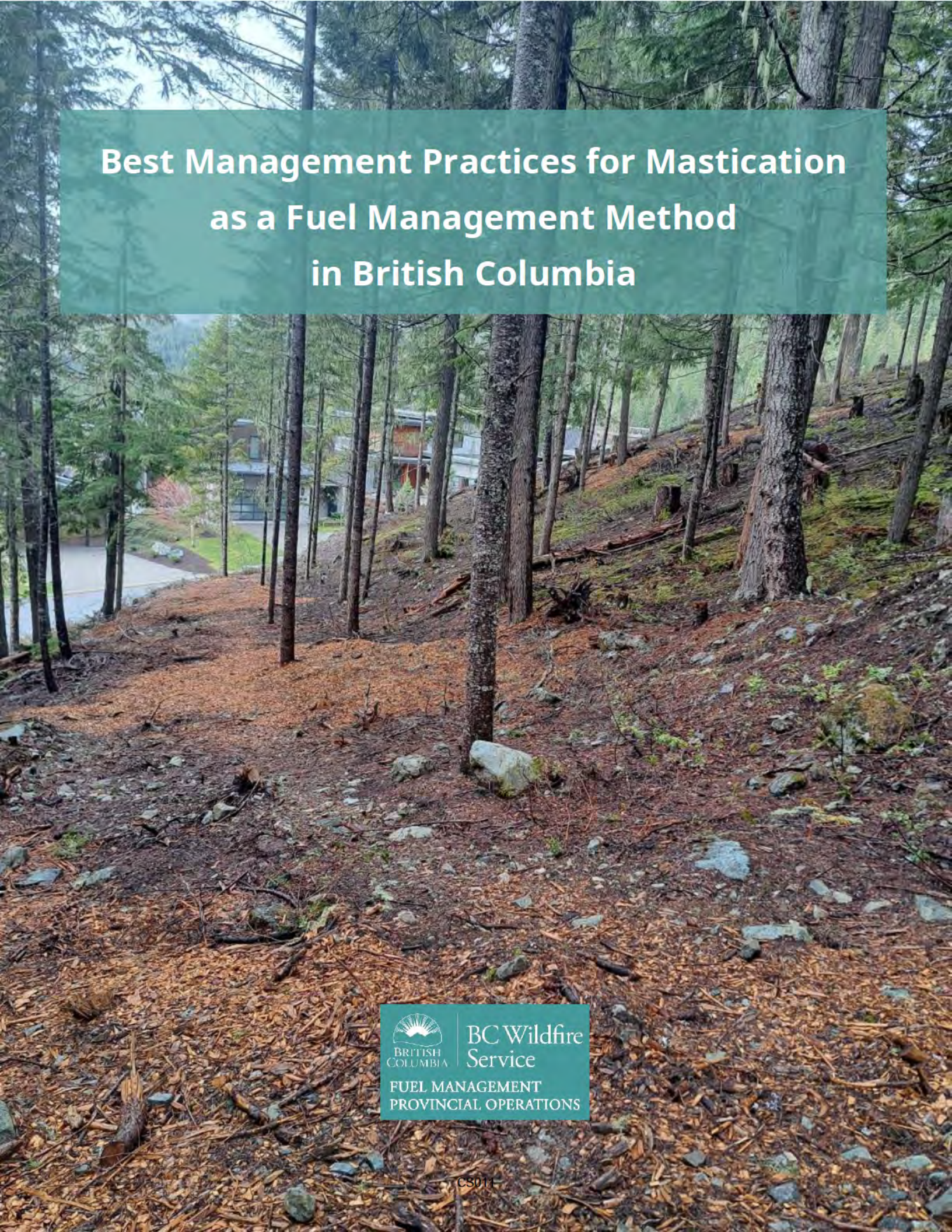
Fragmentation: the breaking of large, contiguous forested areas into smaller forest patches.

Fuels: combustible material including vegetation such as grass, leaves, ground litter, plants, shrubs, and trees that feed a wildfire.

As has historically been the case across Canada, common practice in the past has been to suppress all wildfires in the region. As a result of suppression, the forest within the CWPP area is dominated by even-aged mature white spruce trees that are susceptible to extreme wildfire behaviour. It is now widely recognized that wildfire creates fragmentation across the landscape that generally lowers the risk of wildfire by lowering the intensity when the fire approaches a previously burnt area.

The even-aged, purely spruce forests of the CWPP area provide continuous forest fuels that are at risk of carrying an intense wildfire with no fragmentation to stop or slow its spread. Because the boreal forest type of the CWPP area supports the conditions for intense crown fires, this can be dangerous when burning close to communities.

Goal = create landscape-scale fragmentation in forest fuels

A photograph of a forest landscape with a green title overlay. The forest floor is covered in a thick layer of brown pine needles and some rocks. Several tall, thin evergreen trees are scattered throughout the scene. In the background, a residential area with houses and a road is visible through the trees. The sky is overcast.

Best Management Practices for Mastication as a Fuel Management Method in British Columbia



BC Wildfire
Service

FUEL MANAGEMENT
PROVINCIAL OPERATIONS

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Legal Notice

Disclaimer

This document contains material to assist a person in determining their fuel treatment and implementation requirements. It is intended as a guidance document. Users must refer to the Wildfire Act, Regulations, and the Open Burning and Smoke Control Regulation (OBSCR) for further detailed language regarding their statutory obligations.

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- Email: ipp@mail.qp.gov.bc.ca
- Fax: (250) 356-0846

Acknowledgements

This document was made possible by Shifting Mosaics Corporation and their team members:

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- Dr. Mitch Greer PhD
- Alexis Jorgensen MSc
- Carolyn B. Brochez MNR RPF
- Dr. Derek Scasta PhD
- Dr. Gillian Leverkus PhD
- Georgina Preston MSc
- Tara Boag
- Hunter Bohn

As well as input and guidance from the project team:

- Steven Hvenegaard (FPInnovations)
- Pete Laing RFT (BCWS)
- Kara Froese (BCWS)
- Morgan Boghean RFT (BCWS)

Definitions

The vocabulary surrounding the process of mulching, chipping, and/or mastication and the resulting product (mulch, chips, etc.) is inconsistent across the literature, with different terms often being used interchangeably. In this document, the following terminology is used:

Mastication: The use of machinery to process woody vegetation and litter into smaller pieces, generally as a method of fuel treatment.

Masticated matter/mulch: Woody vegetation and litter that has undergone the process of mastication.

Chip size: The size of individual pieces of masticated matter.

Chip shape: The shape of individual pieces of masticated matter.

Introduction

Mastication, the use of machinery to process woody vegetation and litter into smaller pieces, has been suggested as a fuel management method in BC. Mastication removes ladder fuels and alters fire behaviour. It does not directly remove fuel but may be a valuable tool in areas where other treatment types, such as prescribed fire, are not feasible due to site conditions or local opposition.

This document is intended to provide forest managers with a summary of best management practices for integrating mastication as a fuel management method. The considerations discussed below apply to projects from the Wildland Urban Interface (WUI) to remote areas. This document is not intended as a comprehensive guide of all information and recommendations related to fuel management. This document was developed based on an extensive review of published scientific literature which can be viewed [here](#).



Figure 1: Forest stands after mastication treatment. Images from Hvenegaard and Hsieh (2015) and Hvenegaard et al. (2016) (used with permission).



Figure 2: Open meadow before (left) and after (right) mastication. Images from Hvenegaard and Hsieh (2015) (used with permission).

Interaction of Mastication with Wildfire

Fire has been observed moving from crown to surface and having lower spread rates in masticated fuelbeds, though these results are not consistent across all studies. Research suggests that prescribed fires over masticated fuel have decreased crown scorch and may have reduced overstory mortality depending on fire residence time and soil heating.

Mulched fuelbeds tend to smoulder, potentially releasing higher levels of smoke and particulate matter, meaning that a treated area may burn longer than other fuel types. This allows for soil heating to a point that may be lethal to roots or soil microbes. In such cases, local fuel loading may rebound quickly after fire due to the death and subsequent collapse of standing trees.

When it comes to fire suppression, masticated fuelbeds offer advantages. The removal of ladder fuels makes the area more accessible for suppression actions. However, large quantities of water may be required to extinguish smouldering fires and the fuelbed may ignite or reignite relatively easily if exposed to firebrands. Firebrands have been known to travel several hundred meters or more. Therefore, attention must be paid to prevailing wind speed and direction when planning mastication treatments.

There may be ways to increase the effectiveness of mastication in the event of an approaching wildfire. A combination of retardant drops, sprinkler use, and planned ignitions around a treatment area have been used to bolster treatments in the past. Refer to the Kenow Fire and Logan Lake Fire case studies by FPIInnovations for more information (Ault and Hvenegaard 2019, Hvenegaard 2023) (for full document information, see Suggested Reading on pg. 19).

Planning Your Project

Objectives

Managers should establish their objectives for a treatment program before making decisions regarding methods or equipment. Objectives should be both verifiable and measurable, allowing for the evaluation of project success and tracking of site conditions over time.

Fire Behaviour

There are numerous questions to answer before determining the appropriate fuel management method for a site. What are the goals in terms of fire behaviour? Do you want to create a linear fuel break that can act as a defensible space for firefighters? Or a larger fuel management zone? Do you want to slow the spread of ground fire or prevent crowning? Answering these questions will assist in determining the best methods to implement. Other considerations related to fire behaviour include:

- Vulnerability of standing trees to windthrow after thinning, potentially increasing fuel load.
- Potential drying of surface fuels due to increased ground-level winds and solar radiation after canopy thinning.
- The speed and type of vegetation recovery (fuel buildup) after treatment.
- Potential fire escape routes from inside to outside of the treated area.
- Mitigation of short-term risks elevated by fuel treatment.

Considerations for Mastication Projects

Objectives

- Fire behaviour
- Environmental & cultural
- Use of masticated material

Site Conditions

- Slope & topography
- Soils
- Moisture & hydrology
- Size of treatment area
- Site location
- Size and density of fuels
- Vegetation type
- Bark beetle and pathogens
- Other environmental or archeological concerns

Masticated Fuel Bed

- Amount and pattern of masticated ground cover
- Maximum depth of masticated material
- Size/shape of chips

Equipment

- Operator skill
- Stationary or mobile
- Horizontal or vertical shaft
- Tracks or wheels
- Cutting head attachment
- Horsepower
- Machine size and number

Post-Treatment Plan

- Prescribed fire
- Mechanical mulch removal
- Site monitoring

Environment and Culture

Mastication can have several environmental impacts beyond vegetation removal. Managers should establish objectives for the appearance and ecosystem health of a site after mastication before planning treatment methods. There exist many important ecological and cultural values across the province to consider when planning fuel management methods.

Some environmental and cultural considerations relating to mastication may include:

- The number and pattern of standing trees to be left on site and their vulnerability to windthrow - Note that at least 7m x 7m spacing between trees may be required to accommodate most mastication equipment (Harrod et al. 2009).
- Nearby waterbodies that may be impacted by leachate and/or erosion resulting from treatment activities
- Disturbance, compaction, and/or hydrophobicity of soils
- Potential spread of invasive plants into the treatment area
- Potential impact of the treatments on wildlife forage and habitat including species at risk
- Potential influences on and interactions with cultural values such as traditionally and medicinally used plants or berries and culturally important locations
- Potential smoke release due to prolonged smouldering of masticated fuelbeds

Use of Masticated Material

Revenue may be generated on mastication projects through the sale of the resulting mulch. Masticated material may be used as biofuel in both suitable industrial plants and certain types of home boilers, or other types of bioproducts depending on the local market. Chips may be used for vermiculture. Managers should investigate if there is interest and infrastructure to utilize mulched product in their area, and how it would need to be processed to make this possible. Masticated material should not be used for landscaping purposes.

Site Conditions

The specific conditions of a fuel management site will determine the practicality and best methods for mastication. Forest managers should, at the least, identify the following during a primary site assessment:

- **Slope**
Mastication equipment will only function safely up to a certain slope, commonly $\leq 40\%$ (Jain et al. 2018).
- **Topography**
Different equipment will be required for relatively even sites compared to those with diverse topography. Topography influences the moisture and hydrology of the site.
- **Soils**
Managers should consider whether soil is sensitive to compaction or erosion from mastication activities. This will influence equipment choice and the number of passes acceptable over a particular location.
- **Moisture and hydrology**
Masticated material will generally decompose more rapidly on wet sites. In wetter locations, masticated material is expected to remain moist longer in the case of drought or fire, influencing combustibility. In addition, moisture influences soil stability, with wetter soils potentially at higher risk for compaction.

Managers should identify surface water bodies on site and potential drainage paths to other locations. Mulched material may release leachate into the aquatic environment. Liu et al. (1996) suggest that piles of wood residue (such as mulch) in areas containing fish-bearing streams should be kept more than 100m from the nearest surface water and not within floodplains. They recommend locating piles more than 300m from drinking water wells and 15-30m from a property line.

- **Size of treatment area**
Area for treatment will influence the size and amount of equipment and resources required for the project.
- **Site location in relation to other treatment areas**
The spatial arrangement of treatments related to each other may influence treatment efficacy and eco-cultural values across local and landscape scales.
- **Size and density of fuels for mastication**
The more fuel on site, the more time and equipment will likely be required, and the more masticated matter will be left over. Fuel size and density influence equipment

requirements relating to size, processing power, and maneuverability.

- **Vegetation type**

The species of vegetation to be masticated can have direct effects on both regeneration and the potential environmental impacts of mastication. For example, some species regenerate through relatively thick layers of masticated matter or are of greater concern for releasing leachate than others.

It is important to identify invasive species in or around the project area and consider the potential impact of mastication on their introduction or spread. If there are invasive species nearby, managers should develop a control plan including preventative activities such as cleaning equipment before it enters the treatment site.

- **Bark beetle or other forest pathogens**

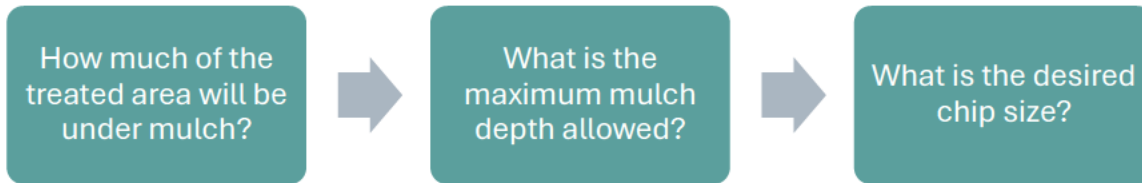
Managers should consider whether bark beetle outbreak is a concern in the project area as bark beetles may be attracted by the smell of masticated material. Trees will likely be more vulnerable to a variety of pathogens if damaged by mastication equipment. Transporting masticated material out of the project area may lead to the spread of pathogens to other forest stands.

- **Other environmental or archeological concerns**

Mastication projects will be subject to the legal requirements for factors such as species at risk, fish-bearing waterbodies, and archaeological sites. Managers should identify the probability of such values occurring in or around their treatment area and proceed accordingly.

Considerations for the Masticated Fuelbed

Critical Mulch Considerations



While it is generally recommended that as much mulch be removed from the treatment site as possible, managers should be cognizant of coarse woody debris requirements when planning their project (Chief Forester's Guidance on Coarse Woody Debris Management Wildfire Mitigation Treatments, Government of British Columbia 2022).

Biomass may be removed prior to mastication via logging or other activities. Leaving mulch on site can result in negative consequences such as suppressing plant regeneration and releasing leachates into nearby waterbodies. Although fuel is modified, it will likely decrease the efficacy of mastication as a fuel management method if left on site. If removal of all mulch is not feasible, there are several factors to be considered: amount, depth, and chip size of remaining mulch.

How much of the treated area will be left under masticated material?

The proportion of the treatment area you intend to leave covered with masticated material will depend on the desired environmental and fire behaviour objectives. There is limited research on the ideal layout of mulch on a treatment site. However, heterogeneity, with a mix of covered and uncovered areas is recommended. This provides a variety of microenvironments for plant regeneration and wildlife habitat. Managers should also consider clearing areas to disrupt fuel continuity in case of ignition.

In addition, removing chips from around the base of trees, provided it can be done without significant root damage, is recommended as it may decrease both mortality in the case of fire and bark beetle attack on residual trees. See Jain et al. (2012) for a more detailed discussion of the potential patterns of masticated material left on treatment sites.

What is the maximum depth of masticated material allowed?

The depth of masticated matter covering the ground will directly influence plant regeneration, fuel loading and resulting fire behaviour. Wolk et al. (2020) suggests that a depth of 7.5cm may hinder plant growth, and a depth above approximately 5cm may depress tree growth. However, the impact of mulch depth will depend on local site conditions, including the species being

masticated. Kreye et al. (2014) is a good reference for further information about the influence of mulch depths across different treatments.

In addition to mulch depth, another consideration is the depth of mastication into the forest floor. Will only surface vegetation be processed, or will mastication reach into the underlying soil? The latter will create greater soil disturbance and increase wear and tear on equipment.

However, mixing masticated material with mineral soil may speed decomposition and decrease flammability of the fuelbed.

What is the desired chip size?

Mastication can be done to coarse or fine levels. In the former, masticated fuels include many large pieces. Coarse-level treatments discussed in Lyon et al. (2018) sectioned trees into approximately 0.5m lengths. Fine level treatments process the fuelbed into relatively even, small fuel fragments and tend to take more time and resources. Processing fuels into coarse versus fine matter may also be referred to as low versus high intensity treatment.

Chip size will influence plant regeneration, decomposition, compaction rate, and potential for use of masticated matter as fuel or other bioproducts. It will influence fire behaviour if the fuelbed is ignited. If planning to use chips as fuel, managers should determine the chip size and shape requirements for related local infrastructure.

If left on site, it is generally recommended that smaller chips be produced as they tend to decompose rapidly and provide better conditions for plant regeneration than larger chips. Smaller chips are likely to compact more quickly than larger chips, potentially decreasing their flammability. However, smaller chips tend to ignite more easily and burn more quickly than coarse material, so ideal chip size will depend on specific objectives and site conditions.



Figure 3: Example of coarse (left), medium (middle), and fine (right) mulched fuelbeds.

Equipment

Various equipment is available for mastication and what is best for your project will depend on site characteristics such as slope and topography. However, there are a few general considerations when choosing mastication equipment. Jain et al. (2018) is an important resource to review. Using mastication equipment can lead to problems such as fuel spills and other issues. Operators should have the necessary training and supplies to mitigate these issues.

Operator Skill

Operator skill is often cited as more important than equipment type in terms of project results. A skilled operator will increase mastication efficiency and lower costs, and they are more likely to achieve project objectives. Less post-treatment work may be required to achieve results such as the desired amount, depth, and pattern of cover. A skilled operator can minimize environmental impacts of a project through factors such as taking fewer passes over a treatment area.

Stationary vs. Mobile

Stationary equipment includes a chipper or masticator, which remains in place. Secondary equipment is required to transport fuels to the masticator. The use of stationary equipment makes it easier to collect masticated material either for piling or transport. It may be the better choice when the intention is to transport mulch off site for storage or use as biofuel. However, the requirement for separate transportation and mastication equipment may increase project costs. The use of stationary equipment increases vehicle traffic on site, as machines move back and forth to the masticator, with related disturbances such as soil compaction.

Mobile equipment travels around a site masticating as it goes. The initial treatment costs may be lower as fewer pieces of equipment are required. The use of mobile equipment may be favorable in areas with sensitive soils as it requires less vehicle traffic. However, mobile equipment tends to spread masticated matter around a site and leaves greater depths of mulch around tree stumps. Further cost, equipment, and disturbance may be required post-treatment to remove masticated matter or relocate it into the desired pattern.

Drum vs. Disk Masticators



Figure 4: Examples of a drum shaft masticator (left) and disk shaft masticators (right). Images from Hvenegaard and Hsieh (2014) and Steve Hvenegaard. (Used with permission).

Mobile mastication is typically performed by an excavator or skid steer with a specialized masticating attachment. Two types of attachments are available for either machine: drum (horizontal shaft) masticators or disc (vertical shaft) masticators.

Skid steers are well-suited for working at ground level on mild slopes and level topography, while excavators are more maneuverable, can work on steeper slopes, and have greater reach. The drum masticator uses a spinning cylinder covered in cutting teeth to shred material. While drum masticators are considered slower than disk masticators, they produce a finer-sized masticated material. They can masticate both trees and brush and throw debris in a predictable path.

A disk masticator uses a circular flywheel with cutting teeth to remove material. Disc masticators cut faster and can be used to masticate larger trees, but produce coarser material, leave messy stumps, and eject material greater distances. Disc masticators generally require greater operator skill but less maintenance than drum masticators. Both mastication head types can be attached to excavators or skid steers. However, the increased power demands of a horizontal drum masticating head require a larger machine and, consequently, more ground disturbance potential.

In conclusion, it is critical to understand the capabilities of various masticating machine configurations and your site requirements before finalizing site plans or prescriptions. Dialogue with potential contractors is encouraged to better understand available machines and capabilities.

Other Equipment Considerations

- **Wheels or tracks**

Wheeled equipment may be more maneuverable but tracked equipment tends to create less soil disturbance and is more suitable where soils are wet or prone to compaction. Tracked vehicles may be preferable on steeper terrain.

- **Cutting head attachment**

Managers should consider whether to have their cutting head boom mounted. This will allow masticators to process fuels in locations where the full machine cannot access due to rough topography or other factors. There are many options for specific types and specifications of cutting heads.

- **Horsepower**

Higher horsepower is required for processing larger trees and often results in smaller chip size. However, increasing horsepower generally equates to larger machines or cutting heads and higher costs.

- **Size**

The size of equipment directly influences reach and maneuverability. Smaller machines are generally expected to be lower cost and more maneuverable, which may make them ideal for densely vegetated areas or locations where a relatively high number of residual trees are desired. They may be necessary in areas where roads do not support the use or unloading/loading of large equipment. However, larger machines are required to process larger trees. A longer reach may be required to remove fuels higher up or in locations where the full machine cannot access.

Post-Treatment Plan



Figure 5: Ignition of a coarsely mulched fuelbed. Image from Hvenegaard (2020) (used with permission).

Mastication Followed by Prescribed Fire

Prescribed fire can be an effective way to remove masticated matter from a treatment site. Reductions in fuel load from mastication followed by prescribed fire, particularly in conifer forests, can be sustained for 10 to upwards of 20 years. Prescribed fire requires less vehicle traffic within the treatment unit than activities such as raking and may create more regular and predictable fuelbeds depending on treatment methods and site characteristics. However, managers should consider the potential for mortality of residual trees due to root damage from soil heating resulting from potentially longer fire residence times in masticated fuelbeds.

There is a balance between community safety from wildland fire and the potential short-term impacts from prescribed fire smoke. Managers must complete a prescribed fire burn plan, which includes particular attention to communications, smoke management, and mop-up plans. A strong communications plan will outline how the community, public, and surrounding residents or industry will be advised of the timing of ignition, and it will allow for feedback and comments to be taken into consideration during a prescribed fire operation. A mop-up plan will discuss resources available and timing for dealing with smouldering and potential reignition of masticated matter should full consumption of fuels not be achieved.

Smouldering fires may expose field personnel and neighbouring communities to smoke or fine particulates until the fuels have been fully consumed. A smoke management plan will discuss the considerations made to venting, wind direction, and other indices prescribed to minimize

short term impacts from smoke to the surrounding area. Category 4 Resource Management Open Fires (Cat. 4 RMOF) are not prohibited under the Emergency and Disaster Management Act (EMA). While Cat. 4 RMOF are not regulated under the Open Burning Smoke Control Regulation, it is important that everyone implementing a prescribed fire considers smoke management as one of the highest priorities for consideration and mitigation particularly in the WUI. In some cases, short-term smoke impacts may be necessary to increase community safety from wildfires. Managers should have a clear communications plan for informing neighbouring landowners and tenure holders about such activities and to address concerns and to provide clean-air alternatives.

As time since mastication increases in more mesic sites (2-5 years since mastication), fuel becomes increasingly challenging to burn due to woody plants and other vegetation growing through the masticated layer. Compaction of the fuelbed occurs through time and can also influence flammability. Therefore, it is recommended that prescribed fire occur as soon after mastication treatment as possible. The fuel moisture codes (Fine Fuel Moisture Code, Duff Moisture Content, and Drought Code) may assist managers in determining the best timing for applying prescribed fire.

Another consideration related to prescribed fire is the potential influence on invasive plants. Soil heating from increased residence time in mulched fuelbeds may damage or kill invasive species on site. However, certain invasive species, such as cheatgrass (*Bromus tectorum*) are well adapted to fire and burning may encourage invasion. Managers should consider the abundance and type of invasive plants in the area and the potential interaction of fire with these species before deciding whether to burn a mulched fuelbed.

Alternatives to Prescribed Fire

If prescribed fire is not feasible, there are other options for removing masticated material from site. Chips may be raked into piles or baled for transportation. If using stationary equipment, mulch can be directly loaded into trucks or piles during mastication. Another option is to remove biomass from an area before mastication via logging. Even if masticated matter is intended to be left on site, post treatment piling or moving of the chips should be used to create a patchwork of covered and uncovered areas. If raking masticated matter into piles for burning is an option, equipment should have a suitable head attachment to avoid problems such as mixing snow into piles.

Post-Treatment Monitoring: Fuel Load, Soils, Vegetation, Wildlife

Managers should develop a detailed monitoring plan for the treatment site covering both fuel loading and environmental objectives. It is recommended that monitoring plots are established in treated and untreated areas for comparison. The most effective monitoring plan will cover the

site for several years allowing for both evaluation of project success and detecting when fuel levels have recovered to the point that further treatment may be required. Eco-cultural values for consideration may include but not be limited to the presence or absence of wildlife and culturally and medicinally used plants and berries, preservation of areas of cultural significance, amongst others.

Knowledge Gaps

Mastication as a fuel management method is a relatively new process in BC and it is associated with several knowledge gaps. Forest managers should be aware of these uncertainties when planning their project and know that the recommendations within this document may change as further research becomes available. Some important research needs related to mastication include:

- **Effectiveness of mastication as a fuel treatment across different fire indices and fuel types**

Though a significant amount of research has been performed on mastication, the resulting information will not necessarily hold for all forest types and fire indices in BC. Purposeful burning of masticated fuelbeds while monitoring the resulting fire behaviour will help assess the effectiveness of mastication as a fuel treatment under varying conditions across the province.

- **Mastication and the environment**

Wildlife, traditionally used plants, invasive species, soil nutrients and carbon sequestration, leachate, and soil microbiology. There are several theses and grant report documents available considering one or more of these topics.

However, increased scientific exploration and publishing is recommended to gain a better understanding of the potentially complex interactions between mastication and ecological and cultural values and areas of interest.

- **The ideal pattern of masticated matter**

Further exploration of the influence of the pattern of masticated matter left on site and what is optimal for fuel treatment and wildlife objectives would be beneficial.

- **Baling or other methods of chip removal**

Another potential research endeavour for BC is to investigate different methods for removing masticated material from treatment areas, such as baling systems (e.g.

Gyrotrack-bioenergy baling system as discussed in (Blackburn and Keddy 2018)).

- **Engagement with on-the-ground personnel**

It is recommended that there be review and engagement with those currently doing mastication related projects on the ground in BC. There is much expertise that exists with licensees and others involved in the forest industry and the wildland fire and fuel profession which will not be captured via literature review.

Should mastication be used in BC?

Mastication with chip removal and post-treatment plans that are implemented may be an option as a fuel management method in the WUI in BC. Chip management and post-treatment follow-up, including monitoring are critical factors for the potential success of mastication projects. Mastication with all chips left on site and no post-treatment is not recommended (with potential exceptions for wet sites with low volumes of masticated material). Such masticated areas pose environmental concerns and do not remove fuels from the location.

Mastication with removal of all or part of the resulting mulch may be a viable option in areas where other treatment types, such as prescribed fire, are either unsafe or subject to strong social opposition. This may be particularly common in the WUI, making mastication a valuable tool in such areas. Use of mastication prior to prescribed fire may be beneficial for a variety of reasons including the removal of ladder fuels and the potential for creating a consistent fuel type for managers.

Ultimately, the suitability of mastication as a fuel management method in BC will depend on specific site conditions and objectives, cost-benefits, including confirmed funding for short term follow-up and long-term monitoring balanced with eco-cultural values, the positive/negative interactions between mastication and those values, and the prioritization of mastication appropriate areas in relation to wildfire risk in the WUI and across the surrounding landscape. In short, it depends.

Summary Table 1: General Recommendations for Mastication

Subject	General Recommendation	Reference
Equipment	Stationary vs mobile - Stationary equipment if: - Plan to remove mulch from site mechanically. - Soils are relatively stable/resilient to compaction. - Mobile equipment if: - Planning to remove mulch from site via prescribed fire. - Soils are sensitive to erosion or compaction. Horizontal vs vertical shaft cutting head - Vertical shaft if: - Tree diameter is only up to 15.2 – 20.3cm (6-8"). - Terrain is rough or uneven. - Horizontal shaft if: - Terrain and slope are relatively even. - Tree diameter up to 76.2cm (30") if boom mounted. (NOTE: felling and bucking trees >20cm in diameter prior to mastication is recommended to decrease processing times) Wheeled vs Tracked Equipment - Tracked equipment if: - Soils are wet or sensitive to compaction - Project is on relatively steep terrain - Wheeled equipment if: - Soils are not wet or sensitive to compaction. - Dense vegetation, complicated terrain, or other factors require the use of a machine with greater maneuverability. Machine Size	(Harrod et al. 2009, Jain et al. 2018, Mitchell and Smidt 2019)

BMP – Mastication as a Method for Fuel Management

	• Smaller machines if: - o Site conditions require relatively high levels of maneuverability (e.g., complicated terrain, dense vegetation). - o Soil is sensitive to compaction. - o Site access does not accommodate larger machinery. • Larger machines if: - o High levels of horsepower are required (e.g., if processing large diameter trees). - o A long reach is required to reach tall trees or access areas where a full machine can't travel. - o Access to site is suitable for large machinery. - o The terrain and vegetation will not seriously hamper movement of large machines.	
Ground cover of masticated material: proportion and pattern	Recommend the removal of mulch from site either via prescribed fire or mechanically. • IF left on site: - o Uneven pattern, with some uncovered areas to allow for variable vegetation response. - o Move fuel at least 22.8cm (9") from the base of trees if possible without root damage. - o Build fuel breaks into the masticated fuelbed to slow or prevent fire spread if ignited.	(Frame 2011, Jain et al. 2012)
Masticated material depth (if left on site)	Lower depths are generally more favourable for plant regeneration and decrease burn severity in the masticated fuelbed. • < 5cm to allow for regrowth of trees. • < 7.5cm regrowth of other plants. NOTE: this will vary depending on which species are present.	(Gray et al. 2010, Young et al. 2013, Wolk et al. 2020)
Chip size	• IF mulch to be removed from site: - o Ideal size is dependent on intended end use. • IF mulch to be left on site:	(Reed et al. 2020, Pickering et al. 2022).

BMP – Mastication as a Method for Fuel Management

	o Suggest fine particle size to aid decomposition NOTE: smaller chips may be subject to quicker compaction and ignite more easily	
Treatment Depth	• IF mulch to be removed from site: - o Process surface vegetation only to minimize soil disturbance. • IF mulch to be left on site: - o Mixing mulch with mineral soil may help decrease flammability and speed decomposition. - o NOTE: This may decrease machine efficiency and have negative environmental impacts.	(Brochez and Leverkus 2022)
Residual Tree Spacing	• A minimum of 7m x 7m spacing between trees is required for effective use of most mastication equipment. • Use best practices for preventing windthrow in thinned stands.	(Schroeder 2006, Harrod et al. 2009)
Mulch pile location and leachate considerations	To mitigate impacts from leachate, mulch piles should be: • >100m away from the nearest surface water and not within a floodplain if there are fish bearing streams nearby. • >300m away from a drinking water well. • 15 - 30m from a property line.	(Liu et al. 1996)
Bark beetle considerations	If your treatment will take place in an area at risk of bark beetle attack: • Perform treatments during times of relatively low beetle activity, such as late summer, fall, or winter. • Ensure that residual chips are removed from around the boles of trees as soon as possible after treatment. • Consider using treatments that promote drying and decay of monoterpenes in slash prior to mastication. • Design treatment units to minimize the amount of edge per unit area. • Consider using low intensity treatments, as bark beetle attack may increase with treatment intensity.	(Fettig et al. 2006)

Prescribed fire on masticated fuelbeds	Schedule prescribed fires as soon after the mastication treatment as possible to minimize fuel compaction. Plan for relatively long clean up and mop up times post-fire to cover potential smouldering and reignition.	(Kobziar et al. 2013)
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Summary Table 2: Considerations for BC Forests

Terrain/Forest Type	Considerations & Recommendations	Reference
Mountainous Terrain	- Vertical shaft equipment may be better for rough or uneven terrain. - Mastication equipment may only be functional at slopes < 40%, or specialized equipment may be required. - Tracked vehicles may be preferable on relatively steep terrain. - Complex topography may cause a variety of different microenvironments across your site. Consider potential variation in fire behaviour, moisture levels, and drainage.	(Jain et al. 2018, Mitchell and Smidt 2019)
Dry Forest	- Masticated material will likely decompose slowly, acting as a fuel source and revegetation suppressant for many years. - Plan to remove material from site either via burning or mechanical means. - Bark beetles may be attracted to the smell of masticated material.	(Fettig et al. 2006, Gray et al. 2010, Morrow and Hvenegaard 2016, Keane et al. 2018)
Rainforest	- Often on steep or mountainous terrain (see above). - Tracked machinery may be more suitable for projects in wet or sensitive soil, though can damage trees boles and roots while turning.	(Marshall et al. 2008, Harrod et al. 2009, Brockway et al. 2009)
Boreal	- Trees are commonly smaller than in coastal or more southern areas. - There are large areas of soft or waterlogged soil (muskeg). - Tracked machinery may be more suitable for projects in wet or sensitive soil.	(Marshall et al. 2008, Brockway et al. 2009, Hvenegaard 2017)

- | | | |
|--|--|--|
| | <ul style="list-style-type: none">• Many areas have thick organic layers, so mixing mulch with mineral soil may not be feasible.• Consider semi-mechanized treatment combining mulching and hand thinning and limbing to control costs. | |
|--|--|--|

Recommended Reading

Most of the papers below are linked to this document. Additional searches can be completed with the [Google Scholar Database](#).

[Ault, R., and S. Hvenegaard. 2019. Case study - Kenow Fire - Alberta, 2017: Structure protection in Waterton Lakes National Park. FPInnovations.](#)

A case study of the efficacy of sprinkler systems in protecting property and bolstering existing fuel treatments in the case of wildfire.

[Battaglia, M. A., M. E. Rocca, C. C. Rhoades, and M. G. Ryan. \(n.d.\). Measuring mulch fuelbed loads.](#)

A guide to efficiently measuring fuel loads in masticated fuel beds. The method was used in a later project (Battaglia et al. 2010) and determined to be effective.

[Blackburn, K., and T. Keddy. 2018. Innovative biomass recovery – feedstock characteristics of the biomass produced by the gyro-trac bioenergy baling system. Info Note, FP Innovations.](#)

Discussion of a potential baling method for masticated matter removal.

[Gray, R. W. 2011. The effect of mechanical mastication and prescribed fire on stand structure and potential fire behavior in Joseph Creek, Cranbrook, BC. R.W. Gray Consulting Ltd.](#)

An example of a mastication project in southern British Columbia. With stand structure, fuel chips sizes, modelled fire behaviour, example photos etc.

[Harrod, R. J., D. W. Peterson, N. A. Povak, and E. K. Dodson. 2009. Thinning and prescribed fire effects on overstory tree and snag structure in dry coniferous forests of the interior Pacific Northwest. Forest Ecology and Management 258:712.](#)

Guide for choosing mastication equipment. Specifically addresses mastication around tall and large diameter trees.

[Hvenegaard, S. 2023. Wildfire/fuel treatment encounters: Assessing fuel treatment effectiveness A case study at Logan Lake, British Columbia. Technical Report, FPInnovations.](#)

A case study of using aerial operations and purposeful burns to bolster the effectiveness of existing fuel treatments during wildfire.

[Jain, T., C. Heffernan, A. Saralecos, and R. Kinyon. 2020. Is mastication right for your site? Science-based decision trees for forest managers. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.](#)

[Jain, T., P. Sikkink, R. Keefe, and J. Byrne. 2018. To masticate or not: Useful tips for treating forest, woodland, and shrubland vegetation. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.](#)

US Forest Service guides for mastication projects. Include useful tables and decision trees for determining whether to masticate, what equipment to use, and other considerations

[Marshall, D. J., M. Wimberly, B. Pete, and J. Stanturf. 2008. Synthesis of knowledge of hazardous fuels management in loblolly pine forests. U.S. Department of Agriculture, Forest Service, Southern Research Station.](#)

Has a list and descriptions of factors that should be considered when planning mechanical fuel treatments (including mastication) such as slope, different fuel types, and cost.

Morrow, B., and S. Hvenegaard. 2016. BC Hydro Northwest Transmission Line wildfire hazard assessment and mitigation strategy. Contract Report, Northwest Transmission Lines.

Discusses wildfire mitigations strategies for masticated fuel beds.

[Spencer, S., and D. Röser. 2017. Best management practices for integrated harvest operations in British Columbia. Special Publication, FPInnovations.](#)

Includes guidelines for increasing and extracting low-quality fibre from British Columbia forests.

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From: Bethany.Paul
Sent: July 5, 2024 8:05 AM
To: Zoe.Westerby; Luc.Bibeau; Darrin.Sinclair; Jennifer.Sharp
Subject: RE: Draft Copper Haul THP

Great, thanks for passing all of this along. I will let you know if we have any questions as we draft up the THP.

Beth



Bethany Paul

Forester

Energy, Mines & Resources | Forest Management Branch

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From: Zoe.Westerby <Zoe.Westerby@yukon.ca>
Sent: July 3, 2024 10:41 AM
To: Bethany.Paul <Bethany.Paul@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Darrin.Sinclair <Darrin.Sinclair@yukon.ca>; Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: RE: Draft Copper Haul THP

Hi Beth,

Luc just pointed out that instead of debris being spread evenly across the surface like it says in our terms, it has recently come up from a report out of British Columbia (attached) that discontinuous surface fuels/debris is better. It is the same idea of creating a fragmentation of fuels across the landscape but on a smaller, site specific scale. i.e rather than a consistent slash or mulch bed, it is better to create areas of discontinuous mineral soil vs debris, etc.

Hope that makes sense.

Zoe

From: Zoe.Westerby
Sent: Wednesday, July 3, 2024 10:00 AM
To: Bethany.Paul <Bethany.Paul@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Darrin.Sinclair <Darrin.Sinclair@yukon.ca>; Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: RE: Draft Copper Haul THP

Hi Beth,

See attached some data (high heritage potential areas, fuelbreak volumes) and some wording about fuels fragmentation from the Kluane Lake CWPP (may be beneficial to include this idea in the objectives or purpose of your THP) and our terms about debris size, burning, stumps, etc. We have

some minimal terms about venting conditions for burning (i.e. avoid smoking out the town) but I'd talk to Jenny about this as she has been a bit more involved in it and has worked with our meteorologist on this topic.

Let me know if I'm missing anything.

Hope this helps with the THP!



Zoe Westerby
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-332-6560 | Yukon.ca

From: Bethany.Paul <Bethany.Paul@yukon.ca>

Sent: Thursday, June 27, 2024 8:48 AM

To: Zoe.Westerby <Zoe.Westerby@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Darrin.Sinclair <Darrin.Sinclair@yukon.ca>; Jennifer.Sharp <Jennifer.Sharp@yukon.ca>

Subject: RE: Draft Copper Haul THP

Hi Zoe:

(I added Jenny Russel on the original email instead of Jenny Sharp... woops, I have removed her now).

You can send this to Keith Fickling now if you want, it is up to you if you want to wait until early August to send him the map. We will have the proposed **Section 74(1)(a)**

Hope the mapping this week goes well, thanks for your help.

Beth



Bethany Paul
Forester
Energy, Mines & Resources | Forest Management Branch
867-334-2838 | Yukon.ca

From: Zoe.Westerby <Zoe.Westerby@yukon.ca>

Sent: June 27, 2024 8:44 AM

To: Bethany.Paul <Bethany.Paul@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Jennifer.Russell <Jennifer.Russell@yukon.ca>; Darrin.Sinclair <Darrin.Sinclair@yukon.ca>

Cc: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>

Subject: RE: Draft Copper Haul THP

Thanks Beth! If you don't mind I'll send this to Keith Fickling for feedback from a fire suppression stand-point. He is our Regional Protection Manager for Southern Lakes.

I realize I have a bunch of stuff to send you but I'm on mapping for wildfires this week and abit swamped with my own work so I'll get it to you when I can 😊

Thanks,



Zoe Westerby
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-332-6560 | Yukon.ca

From: Bethany.Paul <Bethany.Paul@yukon.ca>

Sent: Thursday, June 27, 2024 8:40 AM

To: Zoe.Westerby <Zoe.Westerby@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Jennifer.Russell <Jennifer.Russell@yukon.ca>; Darrin.Sinclair <Darrin.Sinclair@yukon.ca>

Subject: Draft Copper Haul THP

Hi WFM friends:

Here is an updated map based on our meeting this week. We are meeting with the city next week and will let you know if anything else comes up with them. In this map we have added fuel abatement blocks along the ORV / multi use trails and added a fourth operating unit, CHR-04, in the event that WFM wants to do fuel treatments there in the future.

Can you send along:

- Info or terms on the venting index for burning
- Shp files of firesmart plans and treated areas
- Shp of trails and roads in the THP area

I have requested shp files for the harvest blocks from Sue and will pass them on soon.

Thanks !

Beth



Bethany Paul
Forester
Energy, Mines & Resources | Forest Management Branch
867-334-2838 | Yukon.ca

From: Jennifer.Sharp
Sent: July 22, 2024 9:38 AM
To: Bethany.Paul
Subject: RE: shpfiles

Do you have the FMB 'high vol' areas that mitch did originally? I sent that to him as well.

I'm not sure what Dave actually did while he was sitting over there.

I extrapolated and interpolated a lot to get our volumes for the narrow stretch along sima that we are harvesting.



Jennifer Sharp
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: Bethany.Paul <Bethany.Paul@yukon.ca>
Sent: Monday, July 22, 2024 9:36 AM
To: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: RE: shpfiles

Thanks! Hopefully I have everything in order and you don't need to resend everything over and over and over again!

From: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Sent: July 22, 2024 9:34 AM
To: Bethany.Paul <Bethany.Paul@yukon.ca>
Subject: RE: shpfiles



Jennifer Sharp
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: Bethany.Paul <Bethany.Paul@yukon.ca>
Sent: Thursday, July 18, 2024 2:34 PM
To: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: RE: shpfiles

Hi Jenny

It looks like, in 2022 you sent Dave a bunch of attachments (see email below). I understand one of the comps, it is clearly associated with the blocks in copper haul north. Do you have a cruise map for the comp attached to this email?

I am trying to get everything fuel break related into one FMB folder with appropriate sub folders so that whoever comes after me can find what they need, rather than needing to repetitiously ask you for the same information.

Thanks for your help,

Beth

From: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Sent: June 7, 2022 2:59 PM
To: David.Swinson <David.Swinson@yukon.ca>
Subject: RE: shpfiles

Hi Dave,

As mentioned, still waiting on some items here is what I have so far. Mitch didn't provide a write up on the timber types, waiting for that also.

The general assessment deals with the kmz file. I don't have the internal strength to transform them into shapes, if you ever get around to it let me know haha.

Cruise comps just came back. Note that the CHNorth is the area including the giant area around the cross country ski club which we've already netted out so take that volume with a grain of salt, and the two areas combined – Sima and CHNorth were cruised on an area about twice as wide as we need it. So Mitch and I will be going over timber types and scaling the volume appropriately. I'd appreciate you having a look at the cruise comp to look at any inconsistencies. I'm not sure why Pete had it originally set to 17.5.

We are still waiting on dates to be confirmed for a potential minister visit so that could affect our outing next week. I suspect its really only going to take one day.

Once I get a little further down the road we may be able to get out later again. As for the Klondike South, that won't be till August.

After that if you want to look around feel free to do so.



Jennifer Sharp
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: David.Swinson <David.Swinson@yukon.ca>
Sent: Tuesday, June 7, 2022 2:03 PM
To: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: RE: shpfiles

That sounds great thanks!

From: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Sent: June 7, 2022 1:59 PM
To: David.Swinson <David.Swinson@yukon.ca>
Subject: RE: shpfiles

Hey, I can send some stuff over with a few caveats

- I'm still waiting for land titles and lands branch to give me their titled lands and crown reserves
- Volumes have all been sent back for re compilation as the diameter limits were set at 17.5 for spruce rather than 12.5. My very rough rough guess based on what I've seen so far is we will be scaling back due to the 20,000m3 limit.
- It will undergo some adjustments based on volumes, and landbase deletions, and it has already undergone some changes internally that I haven't updated yet.
- I'll also send the heritage over
- I have typing in a shp file for half of the area, the rest is in kml and I can send you those along with some cruise reports

I'll try to get to that by tomorrow. Cruise comps will be a bit.



Jennifer Sharp
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: David.Swinson <David.Swinson@yukon.ca>
Sent: Tuesday, June 7, 2022 1:42 PM
To: Jennifer.Sharp <Jennifer.Sharp@yukon.ca>
Subject: shpfiles

Hey Jenny,

Any chance you can send the shpfiles for the new copper haul yesab areas so we can have a look at the timber types. Also you mentioned that you already have some cruising data from Mitch for these areas?

Thanks,

David

From: Luc.Bibeau

Sent: August 8, 2024 2:35 PM

To: Darrin.Sinclair; Bethany.Paul

CC: Zoe.Westerby; Milan.Lapres; Jennifer.Sharp; Kate.McDonald; Andres.Insley; WFM.Safety

Subject: Danger tree in CHR THP

Hi Darrin and Beth,

I was out in the Copper Haul Road THP area for a dog walk this morning and found a hazard at the end of one of the exploration roads. Someone has been cutting a few of large diameter trees in this area and in this instance, they completed a mismatch cut but did not actually bring the tree down. I suspect they either realized they didn't have a safe way to bring it down or they are waiting for the wind to blow it over. I wanted to share this so that people can avoid the area because it would be extremely dangerous to be around when it does come down.

WFM folks – cc'ing you for awareness in case your fieldwork takes you to this area (it's down the trail from one of the central processing areas).

Coordinates:

60.62193, -135.03944

<https://www.gaiagps.com/map/?loc=14.7326/-135.0394/60.6219&layer=publictracks,Satellite>

Photos:





Thanks,

Luc



Luc Bibeau

Manager, Prevention and Mitigation Unit

Community Services | Wildland Fire Management

T 867-332-1993 | Yukon.ca



Draft for Discussion

Copper Haul Road Fuel Abatement Timber Harvest Plan

September 19, 2024



Contents

Section 74(1)(a)



Introduction

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Meeting notes: March 3, 2025

Julie, Neal, Maude, Jenny S, Zoe, Darrin, Luc, Milan, Robin, Jenny R

Haines Junction

- Checked on Q01, progress being made, meeting to confirm contract requirements on March 3, 50% has been completed, 100% expected to be completed in this fiscal year.
- Sent the Airport tender to transportation aviation branch. They are reviewing, unknown timelines
- Recceing, road flagging, double checking, timber types
- **Next meeting: Zoe to bring a list of what needs to be done – once snow is gone and licence received.**
- Open House April 3 in HJ, CAFN, WFM, CMI, Parks, AG branch, YESAB, YWPA

Other updates:

- RFQ for Fuel treatment services (hand treatment and mechanized). Closed last week. 21 on list. Marking this week.
- Mayo CWPP signed off – working on YESAB submission this summer
- Old Crow and Beaver Creek CWPP are close to be finalizing it as well
- YESAB Watson CWPP to be submitted, plan not yet signed off
- Teslin – working on an HRIA for the fuel, VoT TPA has hired Adam Wrench as a consultant – Stantec hired for HRIA – main concern is CMT. **Jenny to share HRIA plan for HRIA with FMB. YESAB submission in May?**

South Klondike

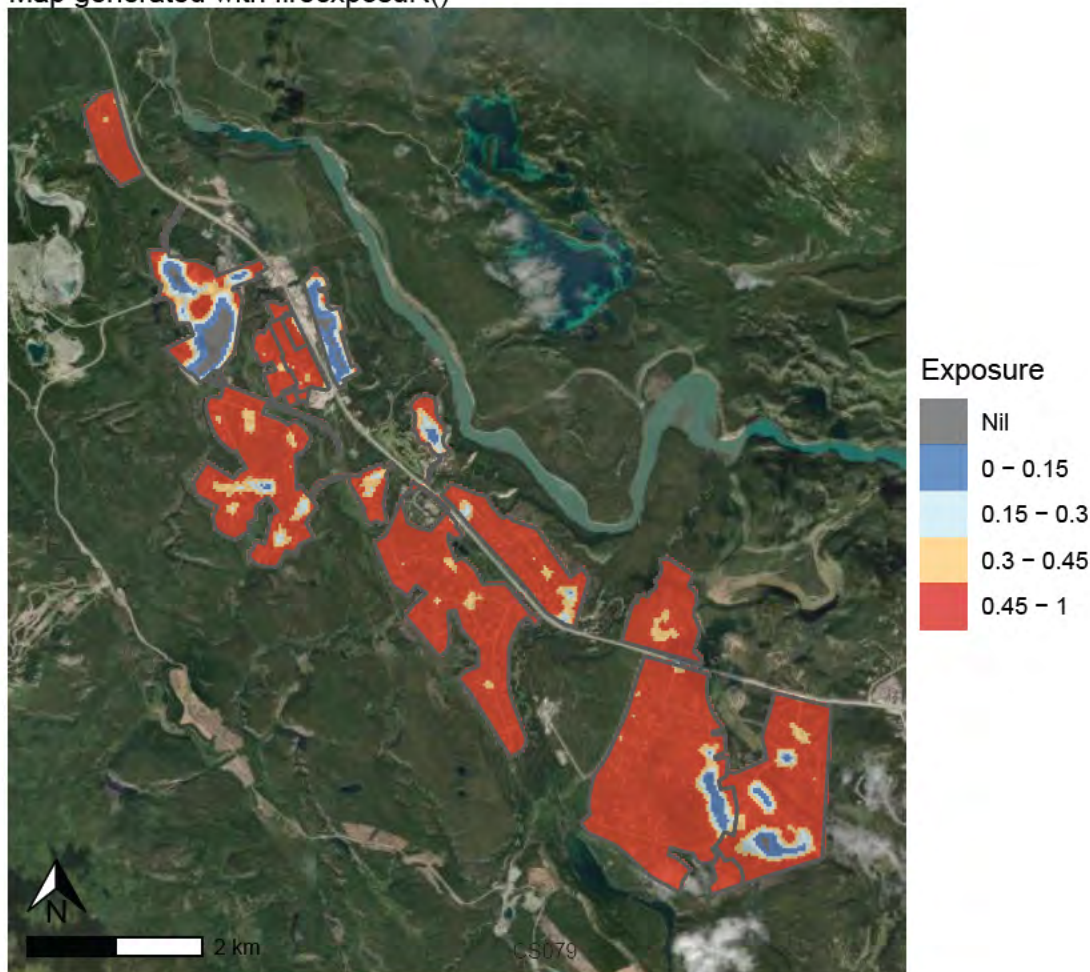
- Letter on access permit received from Highways engineer – meeting Mar 4 to discuss alternatives to moving access.
- Bridge meeting tomorrow with the HPW bridge engineer to discuss options for designing and tendering.

Copper Haul Road THP

- **Debris management discussion – set up a meeting**

Classified Exposure

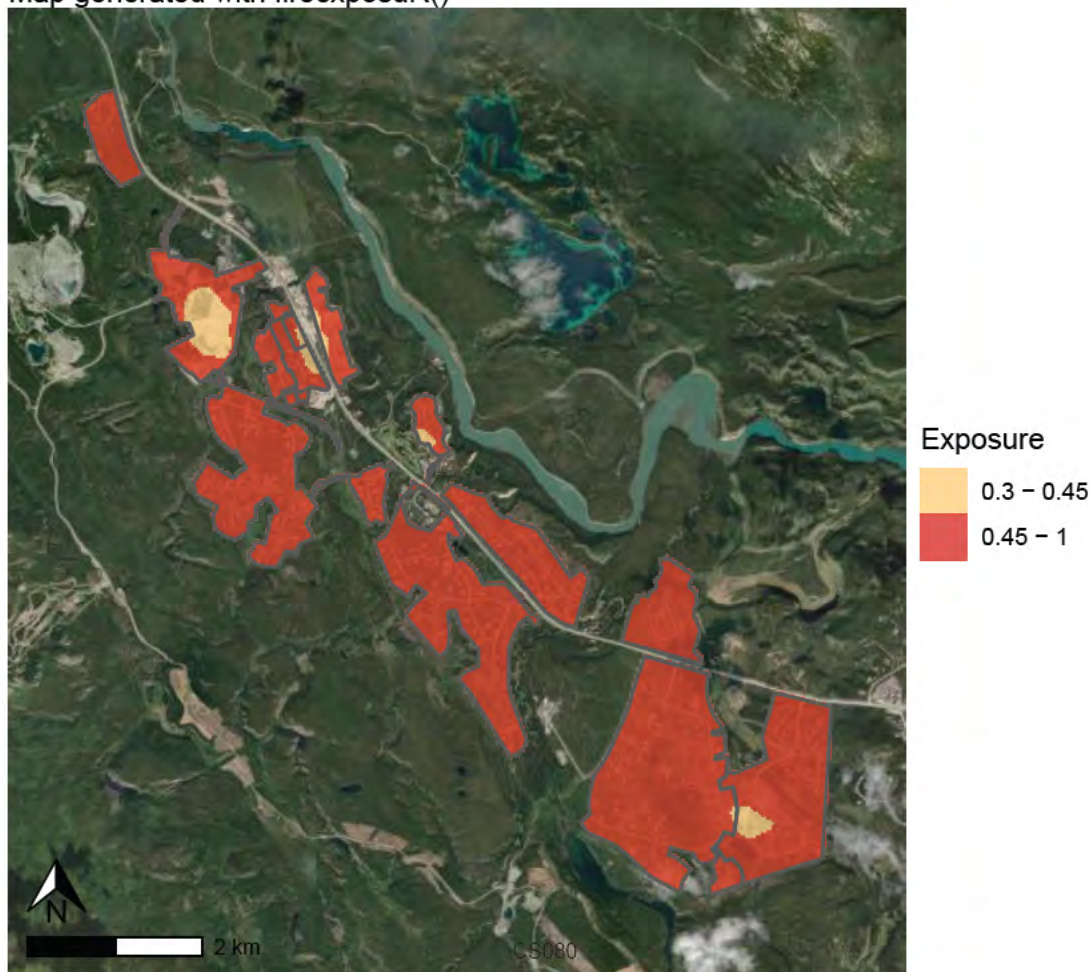
Map generated with fireexposuR()



Basemap Tiles © Esri - Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, UPR-EGP, and the GIS User Community

Classified Exposure

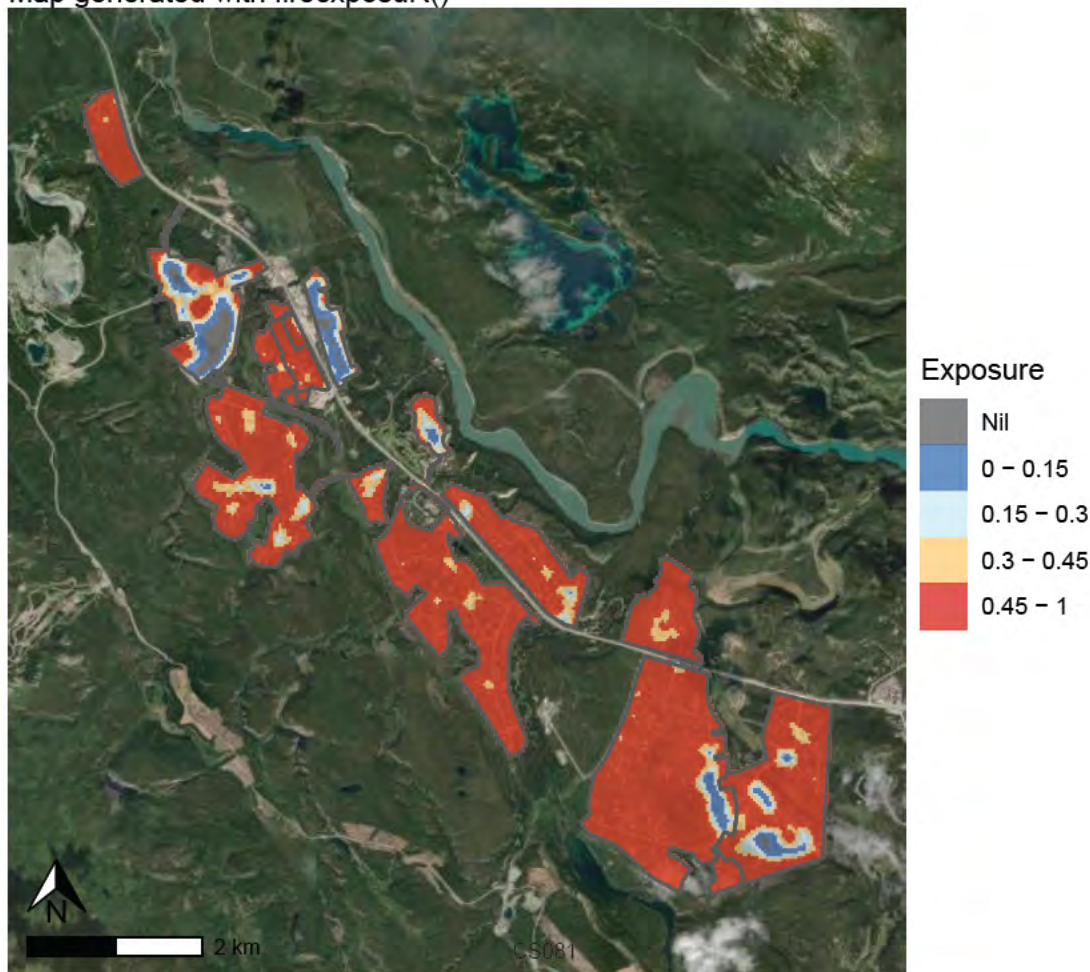
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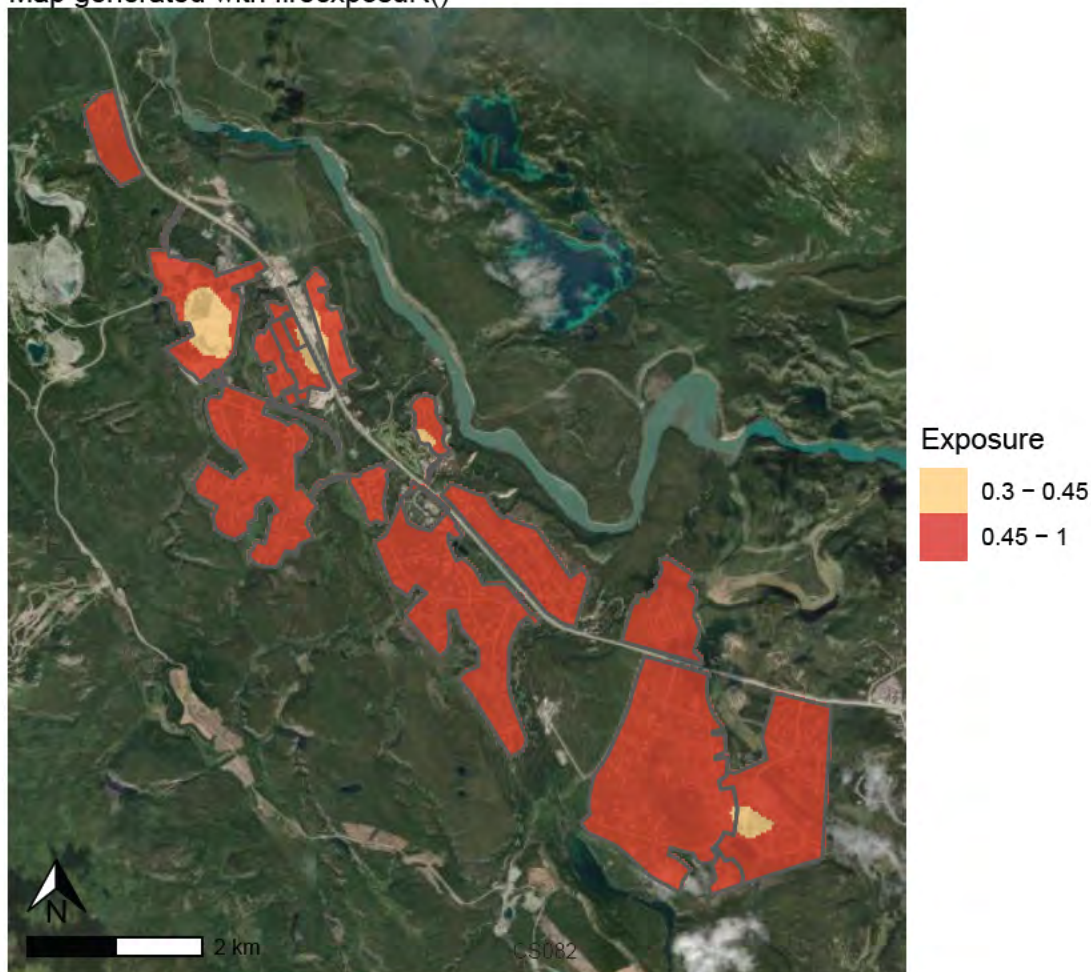
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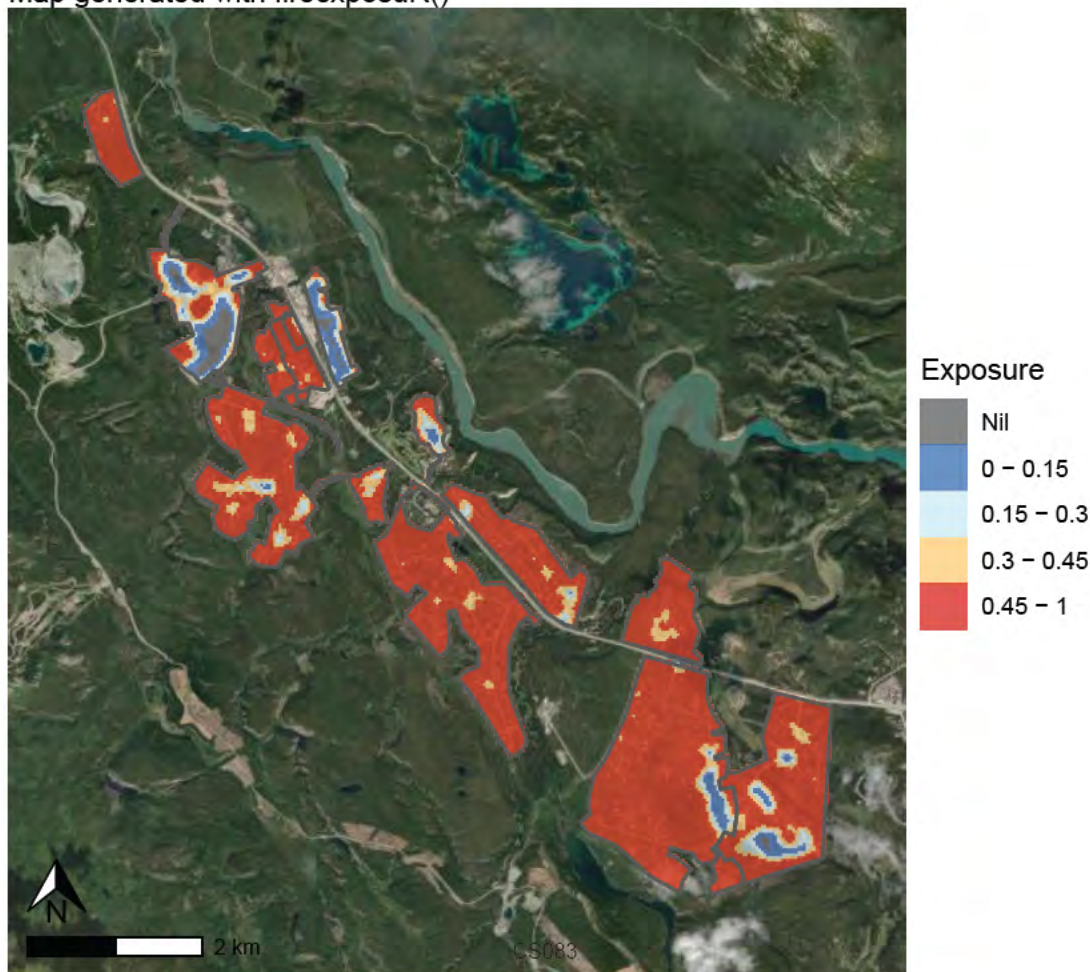
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FMB-WFM Weekly Status Updates

April 28, 2025

Attendees:

Topics

1. South Klondike

Water Crossing

- Contract with CAP ready for signing (\$48K)
- Drillers quotes (\$25K)

Access Options study – Parhelion

- options for ongoing traffic management or upgrading or moving access.
- Budget could be over \$50K?
- Transition this to FMB lead

Road Recce – connector

- Happening today

2. WATSON

- No updates – waiting for Cathro to get back to us re: timelines engagement and consultation.
- HROA/HRIA decisions
- Focused on submitting YEAB in Fall

3. Teslin

- YESAB submission this week or next
- Reducing the HRIA scope
- Implementation next year
- Budget considerations for contracting under the SOA – need to confirm thresholds.
- Waiting for information from legal services on Final Agreement silviculture
- Implementation

4. Copper Haul Road FA THP

- Open House on April 24

- Will make some changes and submit note to assessor
- 5. Copper haul North Treatments
 - Communications with user groups that clearing will start
 - Cobalt contract and McLean Lake residents' association TPA
 - 1 more block south of Sima, Doug and Mitch contracts
 - ELC plot
 - 311 Block – will pilot the biomass treatment prescription, setting aside smaller stems (utilizing more of the stick – 5 inch at butt – 3 inch at top) and track costs to see. Is it logistically/operationally feasible
 - Coal Lake Road – 301 block – would like to tender this year
- 6. Haines Junction
 - Airport project – tentative approval – should know today
 - Tender flagging/layout
 - QC-01 looking good
 - Parks Canada will do field work in June – almost all info for YESAB – approved funding
 - Kluane CWPP – draft sent for engagement
 - Frosty's open this year
- 7. Camp Boyle – Operation: Fireweed Sapper
- 8. CWPP Pelly
 - Will include culture camps
 - Lower hazard rating
 - Focused on the built environment
 - YG will hire a contractor to lead the plan development
 - 6-12 month period to get it done
- 9. Beaver Creek
 - Planning community engagement before the end of May
 - Plan includes FireSmart and increase size of fire guard
 - Forsythe reviewing plan and submit to YESAB within the next year
- 10. Old Crow
 - 1 community engagement meeting so far, 2 more to be scheduled

Other:

- Mayo Road cutoff and Carcross Cut-off – analyst to improve safety for evacuation

March 12, 2025

Note to YESAB assessor:

Subsequent to discussion between Wildland Fire Management and Forest Management Branch regarding the draft Copper Haul Road Timber Harvest Plan, the following changes and/or additions will be made to Form 1 of YESAB project 2024-0188 Copper Haul Road Fuel Abatement Timber Harvest Plan and/or the draft of the Copper Haul Road Timber Harvest Plan.

Form 1 changes:

Section 74(1)(a)

Draft Timber Harvest Plan (THP) changes:

Section 74(1)(a)

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Section 74(1)(a)

Draft Timber Harvest Plan (THP) changes:

Section 74(1)(a)

Section 74(1)(a)

Section 74(1)(a)

FMB-WFM Weekly Meeting Update Minutes:

March 17, 2025

Attendees: Darrin, Neal, Brandon, Nick, Milan, Luc, Zoe, Luc, Mark, Jenny R

Timber Cruising

- Estimated budget \$300 - \$350,000
- Jenny S. asked for a quote for Mayo – smaller contract
 - o Lumberfolk wants to do timber cruising in April – they are busy in May.
- Priority 1: Dawson needs to be done this year.
- Watson can be delayed
- Priority 2: Riverdale and Priority 3: HJ in 2025 or 2026
- Riverdale/Powerline/Sewage Lagoon/Chadburn Lake area need cruise data sooner than later.
- Open tender – notify Mitch and Lumberfolk on QSL
- Think about areas for comparative cruises. Areas with similar attributes and variability do a comparative cruise or can do a lidar based comparative cruise.

Haines Junction CWPP

- No major updates from last week
- Mitch and Pete Wright to request if they can do flagging and road location in the Airport lands
- Fuels Management Working group – set up another meeting after Open House, who is chairing,

South Klondike Fuelbreak

- Email from Highways, should have an update this week regarding the km154 access
- Walking in equipment to work on the road on the other side of Cowley Creek could be an option
- Access km154 and complete Treatment C should be doable pending HPW response.
- Two phase option contract bridge or culvert – Direct award contract

Copper Haul Fuel Abatement THP

- Met with Wolf Creek Association – they were in support

- Fuel abatement roads, manage them better. Explore if they be gated to allow options for smaller or large vehicles – City of Whitehorse may be the authority to allow the gates.
- Fuel abatement blocks – these are to be thinned along the corridor (up to 90% removal), have the east to west block truck accessible, the other two could be ATV accessible only.
- Personal use on both sides of the trail
- WFM will lead the Fuel Abatement blocks work once implementation starts, contract it out, possible public salvage opportunities
- Possible YESAB Public meeting

Teslin Fuelbreak/CWPP

- Jenny S met with TTC consultants 2 weeks ago.
- Silviculture terms in Final Agreement – WFM getting a legal opinion on what they mean for fuel abatement activities.
- Draft Fuel Break YESAB submission - **Action: Luc to share with FMB**
- Teslin – FMB still trying to determine HRIA for Teslin North

Watson Lake CWPP

Dawson CWPP

New business/additional comments

- Mayo CWPP approved,
- Old Crow CWPP and Beaver Creek CWPP close to being completed.
- SFN interested in a CWPP
- CTFN has hired Blackwell to start working on the CWPP for Tagish and Carcross.
- 10 billion trees – (\$1.9 M) additional site prep for some areas
 - o Mulch debris, managing conifer regen prior to planting aspen
 - o Potential Sites in Quill Creek for mulching and creating sites that could be replanted with aspen – stand conversion opportunity?
- Seed stock tender underway
- Options under agreement to do research and technical reports
- Possible lodge pole pines beetles – generally not a threat for taking out green stands of timber – they like the weakened trees (blow down), not healthy trees. FMB will confirm the type of beetle.
-

FMB-WFM Weekly Status meeting update

Date: March 31, 2025

Attendees: Mark, Zoe, Luc, Jenny S. Jenny R. Robin, Darrin, Neal

Haines Junction

CWPP

- 10% deadwood to go to public salvage, might get the 10% from blocks off the airport lands.

Airport

- Still waiting for Airport to respond regarding project

Other areas

- Ski trails in area – may need to consider the user group
- Need to ask Parks Canada to use their road
- Kluane Wagon Road location needs to be confirmed
- Preserve area along Ag subdivision – does it need a buffer
- Northeastern block was re-planted with aspen after it was treated.
- Field work to be completed in May and then build the tenders

Parks Canada fuel abatement

- Cruise data is in and WFM meeting with Parks to review it.
- Parks will be prepping a YESAB
- When ready to harvest – need a timber mark to move it, but it's on federal land
- 1500 cords of wood – need to determine what they do with the wood – public salvage vs. campground supply.

QC-01

- JV submitted to WFM, now that BVR has been received, and invoice can be paid
-

Whitehorse

- South Klondike:
 - o Quote on Friday from CAP engineering for under \$50,000 – need to discuss it some of the details
 - o FMB to lead on the contracting, keep WFM involved
 - o Send JV request to WFM for the contract \$

- o Meeting with HPW this week on Access Km 154
- Copper Haul Fuel Abatement THP
 - o No plan for a public meeting, seeking view
 - o Need an HRIA before development
- Teslin fuel break/Teslin North
 - o HRIA – share time with Stantec for Fuel Break and Teslin North
 - o YESAB drafted

Watson Lake CWPP

- LFN to have Cathro engaging
- LFN citizen meeting on April 9
- FMB to review the draft YESAB submission

Dawson CWPP

- Timber Cruise tender has been drafted
- May need to have notification to the FNs that the work will be happening
- Possible training opportunities

Other CWPPs

- Beaver Creek – CWPP to be signed off soon
- Tender for seed collection closed
- Meeting with SFN for a CWPP for Pelly
- Mayo Fuel breaks – could be replanted or reseeded next year – some erosion issues.
Dan Potvin will be heading out there to look this summer
- **Action: Luc to share guidelines around DMAF procurement processes**

FMB-WFM Weekly update meeting Notes

May 12, 2025

Attendees: Luc, Milan, Neal, Julie, Beth, Robin, Jenny R.

Suggested Agenda:

1. General update on agreement and workplan
 - Agreement components – South Klondike, Teslin, Watson, HJ CWPP
 - Send updates of workplan and agreement around
2. South Klondike Fuel Break
 - Site visit last week – Darrin, Robin, Jenny S.
 - Possible TPA with Golden Horn FD for treatment area C – breaking it into two areas
 - CAP engineering water crossing study/drilling contract in place
 - Re: Access design study – there is a potential Conflict of interest if engineer that does design, bids on the construction
3. Haines Junction CWPP
 - Licence received for Airport Lands
 - Going out first week of June – Mark, Beth, Zoe
 - Tender submitted last week to bids and tenders for review
 - Mark working on the tenders for the other blocks
4. Copper Haul Road FA THP
 - Made some revisions to the THP and YESAB Form 1 by Tuesday, then they will start the evaluation report
 - Meeting with CoW this week re: zoning concerns
5. Copper Haul Road North fuel break
 - Jenny S. working on Comms plan
 - Going to install more solid gates
 - Will be active management with Cobalt on closed period
 - Working on TPA with McLean Lake residents assoc. for XY 311 for work to be done this year
6. Watson
 - Georgina's last day was Friday – she will be working with TTC/YU on Win: WIN project
 - Waiting to hear from Cathro on YESAB submission – will wait no later than Sept
 - HROA for entire planning area will be done this summer

- HRIA will need to be done as well
 - 200 people turned out for BBQ
7. Teslin
- VoT Submitted to YESAB last week
 - HRIA contract has been sorted out for fuel break, may still need to sort out the HRIA for Teslin North.
8. CWPPs (Pelly, C T, Beaver Creek, Old Crow)
- tendering out CWPP for Pelly in the next two months
 - Carcross /Tagish - Bruce Blackwell contract – draft in October
 - Early June community meeting in Beaver Creek (Milan)
 - Old Crow – breaking treatments into different phases and hold off on community engagement (Milan)
 - Mayo – Jenny S. heading up to Mayo end of May – working on HRIA and timber cruising and how NND wants to be involved.
9. Timber Cruising contract (Dawson, Watson, Haines Junction and Whitehorse)
- Need to sort out budget/payment timeframe – Timberfolk contracted
10. Camp Boyle – armed forces exercising - 760 cubic yards of chips and 60 cords of trees.

FMB-WFM Weekly Update Meeting Notes

Attendees: Luc, Jenny S., Robin, Neal, Zoe, Julie, Milan

Agenda:

1. South Klondike Fuel Break
 - Update Dylan Letang and Iman at HPW regarding the access study
 - Parhelion contract for access to be in place
 - South Klondike access and water crossing area LiDar collected
 - Determine timing for new FRR construction contract – follow up with Darrin
 - With each project there could be TPAs with the community associations
2. Haines Junction CWPP
 - Airport project is almost ready for be posted
3. Copper Haul Road FA THP
 - FMB Responding to information request
4. Copper Haul Road North Fuel Break
 - Work ramping up
 - Maclean Lake residents TPA – contracting with Doug Kerley and Mitch
 - TPA with Mt Sima also with Mitch (thinning) and Doug (two clear cut blocks)
 - Mitch and Rachel Dawson teamed up on blocks (competitive tender)
 - One more block to tender (to be competitively tendered)
 - Three blocks up Coal Lake Road that can potentially be tendered
5. Watson
 - Met with Cathro last week – they are seeking further clarification on CWPP process, timber cruising, heritage and work to be done.
 - Expanded HROA, HRIA in the summer, fine tune YESAB submission in the fall, time for input from LFN.
 - Primary concern is that some areas may impact LFN rights - hunting and other rights of citizens
 - They want fire risk reduction, access to timber, opportunities for economic development and what involvement they want in the projects.
 - Still up in the air as to what the endorsement process would be for Watson Lake CWPP.
 - LiDar acquisition – requires a tender – WFM to check the budget for potential contribution to costs – \$ available will determine size of area.
6. Teslin
 - Project is in YESAB

- HRIA quote – FMB to weigh-in on the quote – confirm costs
- TTC prefers Stantec and ERM for HRIAs
- Legal opinion re: silviculture terms in FA. TTC wants all contracting opportunities. YG legal interpretation - Silviculture just means stand conversion portion, not the fuel management portion. WFM to share legal opinion.

7. Dawson

- Quote from Stantec for the HRIA
- Timber cruising is happening this summer. FMB to get back to Zoe regarding timing for the cruising to support YESAB submission
- Zoe field visit next week – prioritizing areas
- Pete Wright going to lay out a road in Sunnydale Junet 12-16th– potential egress route
- Fire Smart fuels management BBQ in Dawson next week as well.

8. Camp Boyle

- Wood will be offered for public salvage
- Possible CMI help
- Wood chips available and rest will go to landfill for composting
- Signs – QR code options?
- 10 ft lengths – 500m3 available

Comment 1: Form 1, Page 3 – Section 74(1)(a)

Additionally, on Page 12 of the draft timber harvest plan, Section 74(1)(a)

As per standard terms of City of Whitehorse no open burning of any kind is allowed from April 1st to September 30th except as permitted through Bylaw 2024-44 Emergency Services Bylaw.

Comment 2: Section 74(1)(a)

Comment 3: Section 74(1)(a)

The Draft Copper Haul Road Timber Harvest Plan states on Page 11:

Section 74(1)(a)

Suggested Mitigations for reducing wildfire hazard:

Section 74(1)(a)

Comment 4: Operating Unit 4 is defined as to “enhance the fuelbreak infrastructure to the south”; however, Section 74(1)(a)

Wildland Fire Management Branch's (WFM) mandate is to protect life, property, and infrastructure from wildland fire while facilitating the creation of fire-resilient communities. This includes planning and implementing fuel abatement projects in Yukon communities.

WFM has met with Forest Management Branch to discuss fuel abatement components of the Copper Haul Road Fuel Abatement Timber Harvest Plan. WFM is in support of the plan given the mitigations in the 'Note to Assessor from Proponent' (Document #2024-0188-0049) posted on March 27th, 2025. Furthermore, WFM is committed to collaborating with Forest Management Branch to develop an implementation plan and permit terms and conditions to meet the fuel abatement objectives of the project.

Wildland Fire Management Branch's (WFM) mandate is to protect life, property, and infrastructure from wildland fire while facilitating the creation of fire-resilient communities. This includes planning and implementing fuel abatement projects in Yukon communities.

WFM has met with Forest Management Branch to discuss fuel abatement components of the Copper Haul Road Fuel Abatement Timber Harvest Plan. WFM is in support of the plan given the mitigations in the 'Note to Assessor from Proponent' (Document #2024-0188-0049) posted on March 27th 2025. Furthermore, WFM is committed to working with Forest Management Branch to develop an implementation plan that may include incorporating fuel abatement terms into permits within the project area.

In addition to the mitigations in Document #2024-0188-0049 and a pending implementation plan, WFM is providing the following suggestions to elaborate on the fuel abatement component of the plan:

Section 74(1)(a)

2024-0188 Copper Haul Road Fuel Abatement Timber Harvest Plan

Wildland Fire Management

Wildland Fire Management Branch (WFM) - Department of Community Services is mandated to deliver effective, efficient, safe wildfire management on behalf of the Yukon government; to protect life and property and to facilitate the creation of wildfire resilient communities. WFM is in support of the Copper Haul Road Fuel Abatement Timber Harvest Plan and any resulting timber harvesting that reduces fuel loading and risk associated with wildfire. The following comments are to ensure thought and consideration is given to reducing wildfire risk to the City of Whitehorse and surrounding area and resources.

Supplementary Information

Supplementary Information 1: Form 1, Page 3 states a burning permit will be required from Compliance, Monitoring and Inspections (CMI) Branch - Energy, Mines & Resources. The project is located wholly within City of Whitehorse municipal boundary; thus, authorization for burning comes from the municipality, not CMI, both during wildfire season and outside of fire season. There are also requirements for adherence to associated bylaws associated with this permit.

For example, on Page 12 of the draft timber harvest plan, it is stated that burning may be allowed in low fire danger between August 15 and October 1st; however, as per standard terms of City of Whitehorse no open burning of any kind is allowed from April 1st to September 30th except as permitted through Bylaw 2024-44 Emergency Services Bylaw.

Supplementary Information 2: It should be noted in the timber harvest plan that legal fire season occurs from April 1st to September 30th of each year.

Requested Information

Requested Information 1: Operating Unit 4 is defined as having a purpose to “enhance the fuelbreak infrastructure to the south”; however, Information Request 1 removed the proposed block from this unit. Wildland Fire Management is seeking additional information on whether the Proponent intends to scope in fuel abatement work in this unit to support the Whitehorse South Fuelbreak.

Requested Information 2: Wildland Fire Management recognizes on Page 11 of Draft Copper Haul Road Timber Harvest Plan, it states: “After timber harvesting is completed, there may be opportunities for fuel treatments to further reduce fuel loads (i.e. removing any downed wood after harvesting has been completed).”

Wildland Fire Management is seeking clarification to a) understand what the intended fuel loading will be in blocks post harvesting activities; b) understand the Proponent's intended opportunities to reduce fuel loading and wildfire risk.

For context, post harvesting fuel treatments can be expensive and time consuming. Additionally, the period between harvesting and post-harvesting fuel treatments can result in a period in time when wildfire risk is increased. See 'Impacts and Mitigations' section below.

Impacts and Mitigations:

Context: In Form 1, Page 22 Project Activities, the Proponent states “scattering and/or mechanically piling of debris”. The Draft Copper Haul Road Timber Harvest Plan states on Page 11:

“Commercial operators with no heavy logging equipment will lop and scatter their logging debris”

“Commercial operators with heavy logging equipment will either pile and burn or chip and remove logging debris.”

Impact 1: Wildland Fire Management has concerns regarding lop and scatter. Lop and scatter is not compatible with the intent of fuel abatement and can lead to more significant fire hazard by increasing surface fuel loading. Continuous, elevated levels of surface fuels increase potential for aggressive fire behaviour and contribute to crown fire potential in both the treated area and into intact adjacent forested areas. Wildland Fire Management does not recommend lop and scatter as a debris management method for reducing wildfire risk. This applies for all harvesting with or without the presence of heavy logging equipment.

Mitigation 1:

For context, Wildland Fire Management recognizes a standard size of debris of less than 8 inches (20cm) on any axis to mitigate wildfire hazard but has previously accepted a standard of 11.8 inches (300mm) on any axis where operational constraints apply. This standard may be challenging for commercial operators to meet, particularly without heavy equipment; therefore, Wildland Fire Management suggests the following mitigations to reduce wildfire hazard related to debris:

- Debris management should include raking and pile burning, chipping and/or removal of the debris in order to mitigate surface fuel loading. Continuous surface fuels contribute to potential wildfire spread into forested areas adjacent to harvest blocks.
- Any debris and burn piles on-site should not exceed 4.5 metres x 4.5 metres x 3 metres in height to avoid adverse social and environmental impacts. Environmental impacts include hazard of wildfire starts from ember travel or direct spread from larger pile size.
- Any debris and burn piles on-site should be a minimum of 15 metres from adjacent forest, decked timber, trails, parking areas and roads to avoid adverse social and environmental impacts.

Environmental impacts include spread of wildfire to intact forest from direct flame and/or ember travel.

Impact 2: It is not clear if scattering and/or mechanical piling of debris as per Form 1, Page 22 Project Activities will occur within harvest blocks or at processing sites. The risk of burning debris piles in the harvest block is surface fire spread and potential for holdover fires. Holdover fires are defined as wildfires that smolder underground during the winter and resurface in the spring.

Mitigation 2: Wildland Fire Management suggests all debris and burn piles should be on bare mineral soil to avoid any surface fire spread or potential for holdover fires and supervised when burning at all times as per the City of Whitehorse burn permit terms

Fuel Abatement Roles and Responsibilities Agreement

Forest Management Branch and Wildland Fire Management

Date

Scheduled Review Date: Annually

1. Objective

This agreement outlines the roles and responsibilities of Forest Management Branch and Wildfire Management Branch to ensure the successful delivery of the Fuel Abatement Projects under the DMAP and RCF funding agreements with Canada.

2. Project Scope

These projects are guided by funding proposals and agreements with Canada, and include the following initiatives:

Section 74(1)(a)

3. Roles and Responsibilities

Role/Responsibility	Forest Management Branch Responsibilities	Wildland Fire Management Responsibilities
---------------------	---	---

Section 74(1)(a)

6. Financials

An annual plan will be developed and appended to this agreement before the end of each fiscal year to guide the work for the upcoming year and to adjust as needed based on progress and funding requirements.

Section 74(1)(a)

5. Communication Protocol

Section 74(1)(a)

6. Approval and Signatures

Forest Management Branch

Name: _____

Title: _____

Date: _____

Wildland Fire Management

Name: _____

Title: _____

Date: _____

Appendix A: Annual Workplan 2025-2026

Project	Estimated Budget	Key Milestones	Completion Date
---------	------------------	----------------	-----------------

Section 74(1)(a)

From: Michelle.Sicotte
Sent: November 13, 2024 1:53 PM
To: Devin.Bailey; Luc.Bibeau
CC: Jennifer.Russell; Neal.Allison; Gavin.Dykshoorn
Subject: RE: Fuel Management Project Support

Sure thing. That works well for us because Jenny will be back. I'll book something.



Michelle Sicotte

Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Devin.Bailey
Sent: November 13, 2024 1:41 PM
To: Michelle.Sicotte ; Luc.Bibeau
Cc: Jennifer.Russell ; Neal.Allison ; Gavin.Dykshoorn
Subject: RE: Fuel Management Project Support

Thanks Michelle,

Could we make it for next week sometime? This week has filled up quickly.

Thanks.



Devin Bailey
Director- Wildland Fire Management
Community Services | Protective Services
C 867-332-1903 | Yukon.ca

I respectfully acknowledge that I live and work within the traditional territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council. I also recognize and respect all of Yukon's original peoples and their traditional territories.

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Sent: Tuesday, November 12, 2024 4:54 PM
To: Devin.Bailey <Devin.Bailey@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>; Gavin.Dykshoorn <Gavin.Dykshoorn@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Devin and Luc,

Here is a first draft of an agreement between the branches. Our suggestion is to include the full project scope in the agreement, and include an annual work plan as an appendix.

I could set up a meeting for us to discuss later this week if that timing works for you. Jenny is away and Gavin is acting for her.

Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte
Sent: November 7, 2024 10:17 AM
To: Devin.Bailey <Devin.Bailey@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Devin,

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We've completed the preliminary work in the branch needed to make a decision, and we are able to take on many of the identified projects.

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Does this fit with what you are expecting for next steps? I'm tied up in meetings today, but I'd be free to chat tomorrow if that works for you.

It would also be helpful to know if there are any updates from the federal government on the flexibility for using the personnel funding.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Devin.Bailey <Devin.Bailey@yukon.ca>
Sent: November 7, 2024 9:26 AM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>
Subject: RE: Fuel Management Project Support

Good Morning Michelle,

Any update on this? Feel free to give me a call.



Devin Bailey
Director- Wildland Fire Management
Community Services | Protective Services
C 867-332-1903 | Yukon.ca

I respectfully acknowledge that I live and work within the traditional territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council. I also recognize and respect all of Yukon's original peoples and their traditional territories.

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Sent: Thursday, October 17, 2024 4:26 PM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>; Devin.Bailey <Devin.Bailey@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Luc and Devin,

I wanted to provide an update on our progress related to FMB taking on the fuel abatement projects. We are committed to supporting this work and have discussed options.

Although we had hoped to have a plan in place last week, it has become clear that we need a bit more time to finalize our approach. Within FMB we are developing five-year wood supply plans for each district. To take on this additional work, we need to assess how the fuel abatement projects will contribute to our overall wood supply. That will help us to determine which of our wood supply initiatives could be deferred to prioritize the fuel abatement efforts.

I've asked the managers to complete this high level assessment for each district by the end of the month.

Thanks Luc for sharing all the information and helping us work through some of our questions. I believe some of the foresters have been in touch with your staff for more information about the projects already, and I'm sure they will have more questions over the next few weeks.

Let me know if you have any questions.

Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 10, 2024 1:16 PM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Michelle,

I have provided responses below in red.

Please let me know if you have any further questions.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>

Sent: October 10, 2024 1:04 PM

To: Luc.Bibeau <Luc.Bibeau@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>

Subject: RE: Fuel Management Project Support

Hi Luc,

I read through the project proposal and agreement. I have a few questions.

Section 74(1)(a)

Section 74(1)(a)

Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 9, 2024 2:37 PM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: Re: Fuel Management Project Support

Hi Michelle,

Section 74(1)(a)

Thanks,

Luc

Sent from my iPhone

On Oct 8, 2024, at 11:58 AM, Michelle.Sicotte <Michelle.Sicotte@yukon.ca> wrote:

Thanks Luc. In your experience [Section 74\(1\)\(a\)](#)



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 8, 2024 9:35 AM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Michelle,

This is not the full scope of our projects, just those that FMB could take on.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Sent: October 8, 2024 9:10 AM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: RE: Fuel Management Project Support

Thanks for this Luc it is very helpful. This looks like [Section 74\(1\)\(a\)](#)



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 7, 2024 8:58 PM
To: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Subject: Fuel Management Project Support

Hi Jennifer and Michelle,

Please see attached for:

1. Proposed list of fuel management projects for fiscal year 2025-2026;

2. WFM's 2023 submission to the Disaster Mitigation Adaptation Fund (DMAF); and
3. Final contribution agreement for Resilient Communities through FireSmart (RCF).

The financial figures in the project list are estimates that will change as actual costs are confirmed through the procurement process and if/when new funding becomes available. As discussed on Monday, the DMAF agreement only applies to wildfire risk reduction projects in Whitehorse, Haines Junction, and Teslin. There are 7 assets identified in the contribution agreement (an increase from the 5 identified in the original application). The spatial size (ha) listed for each asset is going to become a range rather than a fixed number because inevitably areas are netted out due to topography, heritage, or other values. **Section 74(1)(a)**

The DMAF assets are:

Asset A: Copper Haul Road North Fuel Break

This project sub-component involves the new treatment of 195 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset B: Haines Junction Community Wildfire Protection Plan

The second sub-component comprises the new treatment of 407 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset C: Haines Junction FireSmart Vegetation

The Haines Junction FireSmart Vegetation sub-component involves the re-treatment of 111.9 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset D: Teslin FireSmart Vegetation

The Teslin FireSmart Vegetation sub-component involves the re-treatment of 47 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset E: Whitehorse FireSmart Vegetation

The Whitehorse FireSmart Vegetation sub-component consists of the re-treatment of 625.8 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset F: South Klondike Fuel Break

This project sub-component involves the new treatment of 190 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset G: Teslin Fuel Break

This project sub-component involves the new treatment of 100 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Specific activities within each asset will be guided by specific relevant prescriptions.

List of Assets:

Assets

Asset Owner and/or Applicable Ultimate Recipient Agreement

A – Copper Haul Road North Fuel Break	Government of Yukon
B – Haines Junction Community Wildfire Protection Plan	Government of Yukon
C – Haines Junction FireSmart Vegetation	Government of Yukon and Champagne and Aishihik First Nations
D – Teslin FireSmart Vegetation	Government of Yukon and Teslin Tlingit Council
E – Whitehorse FireSmart Vegetation	Government of Yukon, Ta'an Kwäch'än Council (TKC), and Kwanlin Dün First Nation (KDFN)
F – South Klondike Fuel Break	Government of Yukon
G – Teslin Fuel Break	Government of Yukon and Teslin Tlingit Council

The Resilient Communities through FireSmart (RCF) project will provide \$1.5 million for each of the next 3 fiscal years to support prevention and mitigation initiatives in every Yukon community. We expect that most of this funding will go towards fuel treatments however this funding is flexible and will be deployed to address gaps (eg. Policy, education, training) where communities identify them. The RCF program sunsets in March 2028.

Please let me know if you have any questions and I will my best to get back to you promptly.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Michelle.Sicotte
Sent: November 19, 2024 4:52 PM
To: Devin.Bailey; Luc.Bibeau; Jennifer.Russell; Neal.Allison
Subject: RE: Fuel Management Project Support

Hi all,

Thanks for the meeting this afternoon. My understanding is that we're working to share a draft with the ADMs by early December. Here is what I have for next steps:

- Luc, Jenny and Neal will fill in the project scope and annual workplan tables.
- Michelle will get some advice on the personnel cost question from Gurmaan.
- Devin and Michelle will talk with the ADMs about a briefing.

Let me know if I have that correct. Thanks!



Michelle Sicotte

Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte
Sent: November 12, 2024 4:54 PM
To: Devin.Bailey ; Luc.Bibeau
Cc: Jennifer.Russell ; Neal.Allison ; Gavin.Dykshoorn
Subject: RE: Fuel Management Project Support

Hi Devin and Luc,

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Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

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Sent: November 7, 2024 10:17 AM
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Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>

Subject: RE: Fuel Management Project Support

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Director- Wildland Fire Management
Community Services | Protective Services
C 867-332-1903 | Yukon.ca

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Energy, Mines and Resources | Forest Management Branch
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Section 74(1)(a)

The asset details table is cut off on the right side, I'm not sure if there is content there that would be helpful.

Thanks,



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Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
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Subject: Re: Fuel Management Project Support

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Section 74(1)(a)

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Energy, Mines and Resources | Forest Management Branch
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To: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Subject: Fuel Management Project Support

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Asset C: Haines Junction FireSmart Vegetation

The Haines Junction FireSmart Vegetation sub-component involves the re-treatment of 111.9 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset D: Teslin FireSmart Vegetation

The Teslin FireSmart Vegetation sub-component involves the re-treatment of 47 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset E: Whitehorse FireSmart Vegetation

The Whitehorse FireSmart Vegetation sub-component consists of the re-treatment of 625.8 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset F: South Klondike Fuel Break

This project sub-component involves the new treatment of 190 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset G: Teslin Fuel Break

This project sub-component involves the new treatment of 100 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Specific activities within each asset will be guided by specific relevant prescriptions.

List of Assets:

Assets	Asset Owner and/or Applicable Ultimate Recipient Agreement
A – Copper Haul Road North Fuel Break	Government of Yukon
B – Haines Junction Community Wildfire Protection Plan	Government of Yukon
C – Haines Junction FireSmart Vegetation	Government of Yukon and Champagne and Aishihik First Nations
D – Teslin FireSmart Vegetation	Government of Yukon and Teslin Tlingit Council
E – Whitehorse FireSmart Vegetation	Government of Yukon, Ta'an Kwäch'än Council (TKC), and Kwanlin Dün First Nation (KDFN)
F – South Klondike Fuel Break	Government of Yukon
G – Teslin Fuel Break	Government of Yukon and Teslin Tlingit Council

The Resilient Communities through FireSmart (RCF) project will provide \$1.5 million for each of the next 3 fiscal years to support prevention and mitigation initiatives in every Yukon community. We expect that most of this funding will go towards fuel treatments however this funding is flexible and

will be deployed to address gaps (eg. Policy, education, training) where communities identify them.
The RCF program sunsets in March 2028.

Please let me know if you have any questions and I will my best to get back to you promptly.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Devin.Bailey
Sent: November 29, 2024 12:51 PM
To: Michelle.Sicotte
CC: Jennifer.Russell; Neal.Allison; Luc.Bibeau
Subject: Re: Fuel Management Project Support

Hi Michelle,

Sounds great. Lets aim for that.

Have a great weekend.



Devin Bailey
Director- Wildland Fire Management
Community Services | Protective Services
C 867-332-1903 | Yukon.ca

I respectfully acknowledge that I live and work within the traditional territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council. I also recognize and respect all of Yukon's original peoples and their traditional territories.

From: Michelle.Sicotte
Sent: Friday, November 29, 2024 12:45 PM
To: Devin.Bailey
Cc: Jennifer.Russell ; Neal.Allison ; Luc.Bibeau
Subject: RE: Fuel Management Project Support
Hi Devin,

I reviewed the latest version of the agreement and understand that Luc and Jenny are close with the annual work plan. I would suggest we set up a meeting to brief Nathan and Mark for the week of December 16. It would be great to have the managers participate as well.

If you are supportive I can work with Nathan's admin to get that meeting set up.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte
Sent: November 12, 2024 4:54 PM
To: Devin.Bailey ; Luc.Bibeau
Cc: Jennifer.Russell ; Neal.Allison ; Gavin.Dykshoorn
Subject: RE: Fuel Management Project Support

Hi Devin and Luc,

Here is a first draft of an agreement between the branches. Our suggestion is to include the full project scope in the agreement, and include an annual work plan as an appendix.

I could set up a meeting for us to discuss later this week if that timing works for you. Jenny is away and Gavin is acting for her.

Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte

Sent: November 7, 2024 10:17 AM

To: Devin.Bailey <Devin.Bailey@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>

Subject: RE: Fuel Management Project Support

Hi Devin,

It seems we're working on a similar timeline—I was planning to reach out to you today as well.

We've completed the preliminary work in the branch needed to make a decision, and we are able to take on many of the identified projects.

I spoke with Nathan about this yesterday. My understanding is that the ADMs are looking for a high-level agreement between the branches to outline roles and responsibilities. I'd like to have this finalized by the end of the month as we will need time over the winter to plan the projects. I can prepare a first draft and set up a meeting for the four of us to review and discuss.

Does this fit with what you are expecting for next steps? I'm tied up in meetings today, but I'd be free to chat tomorrow if that works for you.

It would also be helpful to know if there are any updates from the federal government on the flexibility for using the personnel funding.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Devin.Bailey <Devin.Bailey@yukon.ca>

Sent: November 7, 2024 9:26 AM

To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>

Subject: RE: Fuel Management Project Support

Good Morning Michelle,

Any update on this? Feel free to give me a call.



Devin Bailey
Director- Wildland Fire Management
Community Services | Protective Services
C 867-332-1903 | Yukon.ca

I respectfully acknowledge that I live and work within the traditional territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council. I also recognize and respect all of Yukon's original peoples and their traditional territories.

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>

Sent: Thursday, October 17, 2024 4:26 PM

To: Luc.Bibeau <Luc.Bibeau@yukon.ca>; Devin.Bailey <Devin.Bailey@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Neal.Allison <Neal.Allison@yukon.ca>

Subject: RE: Fuel Management Project Support

Hi Luc and Devin,

I wanted to provide an update on our progress related to FMB taking on the fuel abatement projects. We are committed to supporting this work and have discussed options.

Although we had hoped to have a plan in place last week, it has become clear that we need a bit more time to finalize our approach. Within FMB we are developing five-year wood supply plans for each district. To take on this

additional work, we need to assess how the fuel abatement projects will contribute to our overall wood supply. That will help us to determine which of our wood supply initiatives could be deferred to prioritize the fuel abatement efforts.

I've asked the managers to complete this high level assessment for each district by the end of the month.

Thanks Luc for sharing all the information and helping us work through some of our questions. I believe some of the foresters have been in touch with your staff for more information about the projects already, and I'm sure they will have more questions over the next few weeks.

Let me know if you have any questions.

Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>

Sent: October 10, 2024 1:16 PM

To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>

Subject: RE: Fuel Management Project Support

Hi Michelle,

I have provided responses below in **red**.

Please let me know if you have any further questions.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca



From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>

Sent: October 10, 2024 1:04 PM

To: Luc.Bibeau <Luc.Bibeau@yukon.ca>

Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>

Subject: RE: Fuel Management Project Support

Hi Luc,

I read through the project proposal and agreement. I have a few questions.

Section 74(1)(a)

Section 74(1)(a)

The asset details table is cut off on the right side, I'm not sure if there is content there that would be helpful.
Thanks,



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 9, 2024 2:37 PM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: Re: Fuel Management Project Support
Hi Michelle,

Section 74(1)(a)

Thanks,
Luc
Sent from my iPhone

On Oct 8, 2024, at 11:58 AM, Michelle.Sicotte <Michelle.Sicotte@yukon.ca> wrote:

Thanks Luc. In your experience are you estimating this to be about 3 FTEs worth of work? Or more and we have the opportunity to choose what might make the most sense for us to lead?



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 8, 2024 9:35 AM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: RE: Fuel Management Project Support

Hi Michelle,
This is not the full scope of our projects, just those that FMB could take on.
Thanks,
Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Sent: October 8, 2024 9:10 AM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Cc: Jennifer.Russell <Jennifer.Russell@yukon.ca>
Subject: RE: Fuel Management Project Support
Thanks for this Luc it is very helpful. This looks like **Section 74(1)(a)**



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: October 7, 2024 8:58 PM
To: Jennifer.Russell <Jennifer.Russell@yukon.ca>; Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Subject: Fuel Management Project Support
Hi Jennifer and Michelle,

Please see attached for:

1. Proposed list of fuel management projects for fiscal year 2025-2026;
2. WFM's 2023 submission to the Disaster Mitigation Adaptation Fund (DMAF); and
3. Final contribution agreement for Resilient Communities through FireSmart (RCF).

The financial figures in the project list are estimates that will change as actual costs are confirmed through the procurement process and if/when new funding becomes available. As discussed on Monday, the DMAF agreement only applies to wildfire risk reduction projects in Whitehorse, Haines Junction, and Teslin. There are 7 assets identified in the contribution agreement (an increase from the 5 identified in the original application). The spatial size (ha) listed for each asset is going to become a range rather than a fixed number because inevitably areas are netted out due to topography, heritage, or other values. We will have roughly \$2.1 million in O&M annually from 2025-2026 to 2032-2033 to support the development of these projects.

The DMAF assets are:

Asset A: Copper Haul Road North Fuel Break

This project sub-component involves the new treatment of 195 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset B: Haines Junction Community Wildfire Protection Plan

The second sub-component comprises the new treatment of 407 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset C: Haines Junction FireSmart Vegetation

The Haines Junction FireSmart Vegetation sub-component involves the re-treatment of 111.9 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset D: Teslin FireSmart Vegetation

The Teslin FireSmart Vegetation sub-component involves the re-treatment of 47 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset E: Whitehorse FireSmart Vegetation

The Whitehorse FireSmart Vegetation sub-component consists of the re-treatment of 625.8 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset F: South Klondike Fuel Break

This project sub-component involves the new treatment of 190 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Asset G: Teslin Fuel Break

This project sub-component involves the new treatment of 100 ha natural fuel types adjacent to communities that will be modified to protect human life and hard assets from wildfire within this region.

Specific activities within each asset will be guided by specific relevant prescriptions.

List of Assets:

Assets	Asset Owner and/or Applicable Ultimate Recipient Agreement
A – Copper Haul Road North Fuel Break	Government of Yukon
B – Haines Junction Community Wildfire Protection Plan	Government of Yukon
C – Haines Junction FireSmart Vegetation	Government of Yukon and Champagne and Aishihik First Nations
D – Teslin FireSmart Vegetation	Government of Yukon and Teslin Tlingit Council
E – Whitehorse FireSmart Vegetation	Government of Yukon, Ta'an Kwäch'än Council (TKC), and Kwanlin Dün First Nation (KDFN)
F – South Klondike Fuel Break	Government of Yukon
G – Teslin Fuel Break	Government of Yukon and Teslin Tlingit Council

The Resilient Communities through FireSmart (RCF) project will provide \$1.5 million for each of the next 3 fiscal years to support prevention and mitigation initiatives in every Yukon community. We expect that most of this funding will go towards fuel treatments however this funding is flexible and will be deployed to address gaps (eg. Policy, education, training) where communities identify them. The RCF program sunsets in March 2028.

Please let me know if you have any questions and I will my best to get back to you promptly.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: PROOF

Sent: December 23, 2024 9:10 AM

To: Devin.Bailey

Subject: [PROOF] (CS-3396) Copper Haul Road North 70.9 Hectares

PROOF

Section 72(1)(b)(vi)

Copper Haul Road North 70.9 Hectares

Due: 2025-01-02

Priority: Medium

[View Routing](#)

From: Luc.Bibeau
Sent: February 26, 2025 3:31 PM
To: Michelle.Sicotte
CC: Jennifer.Russell; Devin.Bailey
Subject: RE: Colbalt contract

Hi Michelle,

The project for **Copper Haul Road North – 70.9 Hectare Semi-Mechanized Variable Retention and Shelterwood Harvest** is a 70.9 Hectare fuel treatment contract that was awarded to Cobalt Construction Inc following a value-driven request for proposal (RFP). The project includes both semi-mechanized and variable retention fuel treatments and is part of the Copper Haul Road North Fuel Break which is a subsection of the broader Whitehorse South Fuel Break. This contract commences on 1 April 2025 and concludes on December 16, 2026. Based on the cruise data and the treatment prescriptions applied, we expect approximately 7,930m3 of merchantable timber to be harvested as part of the contract. Bidders were provided the option to remove the timber for commercial use or to process it and leave it 4-6 ft lengths for public salvage at designated locations. The successful bidder has chosen to leave the timber for public salvage, except on the quarry disposition where it will be left for the disposition owner.

Jennifer Sharp is managing this project and is out of office until Monday, but you can let me know if you have any follow up questions and I will do my best to provide a response.

Thanks,

Luc



Luc Bibeau

Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Michelle.Sicotte
Sent: February 26, 2025 2:27 PM
To: Luc.Bibeau
Cc: Jennifer.Russell
Subject: Colbalt contract

Hi Luc,

Just following up on my phone message. Our Minister has asked for additional details about the Colbalt construction fuel abatement contract. Area, volume harvested, if there were any specifications in the contract on what to do with the wood, etc. It came up at the meeting yesterday.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte
Sent: March 7, 2025 4:11 PM
To: Colin.Nickerson; Amanda.MacDonald; Devin.Bailey; Luc.Bibeau
CC: Neal.Allison
Subject: FW: Minister meeting with Creekside
Attachments: Creekside update.docx

Hi all,

Here is the update that went to our Minister. Feel free to use to brief in your departments as needed. I suspect we might get more requests following the weekend, Neal will be the contact next week at FMB, and he can help coordinate.

Thanks all very much for your help!



Michelle Sicotte

Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Michelle.Sicotte
Sent: March 7, 2025 1:26 PM
To: Paul.Moore ; Trina.Dobbs-Wareham
Cc: Nathan.Millar
Subject: Minister meeting with Creekside

Hi Paul and Trina,

I've attached an update on a number of files for the Minister's meeting with Doug Kerley this weekend.

Let me know if you have any questions.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

From: Nathan.Millar <Nathan.Millar@yukon.ca>
Sent: March 7, 2025 1:11 PM
To: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>
Subject: Re: Creekside update

Looks great Michelle - yes please pass on to Trina and Paul!

Thanks,

\N

From: Michelle.Sicotte <Michelle.Sicotte@yukon.ca>

Sent: March 7, 2025 12:58 PM

To: Nathan.Millar <Nathan.Millar@yukon.ca>

Subject: Creekside update

Hi Nathan,

Here is the update for the Creekside meeting. I just got the info from HPW five minutes ago, so we haven't had a chance to discuss that idea yet.

Let me know if you want me to send directly to Trina/Paul so the Minister gets it before the end of the day.

Thanks!



Michelle Sicotte
Director, Forest Management
Energy, Mines and Resources | Forest Management Branch
T 867-332-5879 | Yukon.ca

Section 67(3)(b)

Section 67(3)(b)

Section 67(3)(b)

Project Work Plan

Climate Change Preparedness in the North – 2023-24

Project title:

Community Wildfire Protection Plan Implementation in Southern Yukon

Project Proponent:

Department, Branch	Project Manager:	Email:
Community Services, Wildland Fire Management	Luc Bibeau	Luc.Bibeau@yukon.ca

Project description:

In the face of a changing climate, expansion of communities into the wildland-urban interface, and a century of aggressive fire suppression, the risk of a catastrophic wildfire event is clear. To prepare for such an event, Wildland Fire Management as part of its OCF commitments is developing and implementing Community Wildfire Protection Plans (CWPPs) that include forest fuel management activities to reduce wildfire hazard in and around Yukon communities including Whitehorse. To date, three have been approved in Haines Junction, Teslin and Whitehorse.

The proposed project would implement non-structural adaptation measures by putting into action the recommended forest fuel management identified in the Haines Junction, and Teslin Community Wildfire Protection Plans, as well as the Whitehorse Risk Reduction Strategy. The specific actions would include a range of variable retention and shelterwood fuel treatments which are modify forest fuel characteristics to reduce the probability of high-intensity, fast-spreading, active crown fires near communities.

The project would include \$100,000 annually in fuel treatments beginning in 2023 and concluding by March 2026. This project will make a direct, tangible contribution towards OCF action C-9 which includes the development and implementation of Community Wildfire Protection Plans for all Yukon communities.

This project specifically will improve the capacity of YG to respond to wildfires if they threaten these communities by providing defensible space and strategic locations where fire intensity is reduced so that firefighters can work more safely and effectively to suppress wildfires. Moreover the outcomes of this project reduce the wildfire hazard to people,

infrastructure, and property by reducing the probability of ember transport into the built environment.

Work plan and activities:

Objective:

1. Implement a portion of the forest fuel management activities identified within the Haines Junction Community Wildfire Protection Plan, Teslin Community Wildfire Protection Plan, and Whitehorse Wildfire Risk Reduction Strategy.

Tendering immediately in fall 2023, for work to commence in the winter 2023 and continue through to March 2026.

Funding would be split across the 2023/2024, 2024/2025, and 2025/2026 fiscal years with \$100,000 being allocated to each year.

The treatments proposed for the Whitehorse area are part of a series of fuel break projects which passed through the required environmental screening through the Yukon Environmental and Socio-Economic Board as project 2019-0209 and project 2022-0130. The treatments proposed for Haines Junction passed through the required environmental screening through the Yukon Environmental and Socio-Economic Board as project 2023-0004. The treatments proposed for Teslin do not trigger an assessment under YESAA.

This project aims to reduce the probability of negative impacts to Yukoners from wildfire, improve the safety of firefighters, and increase the likelihood of successfully suppressing a wildfire under extreme fire weather conditions.

The measures proposed herein would improve YG's ability to successfully respond to wildfires when it matters most. Research has established that First Nations communities in Canada are disproportionately at risk of evacuation due to wildfires. The proposed project would demonstrate concrete action toward achieving parity for First Nations communities at risk to wildfire through targeted proven fuel management measures.

--

Revised Dec 2023

Budget increased from 55k to 105k.

The funding will be used to pay for another forest fuel treatment project called XY-307 which is a component of the Copper Haul Road North Fuelbreak. This project will make further progress on the overall Whitehorse South Fuel Break network which supports the objectives of the Whitehorse Wildfire Risk Reduction Strategy. The fuel treatment seeks to reduce the potential intensity, rate of spread, and crown fire probability along the Copper Haul Road which will ultimately improve conditions for firefighters to effectively, efficiently, and safely contain a fire before it impacts the city of Whitehorse

Deliverables:

(See Section C in Criteria)

Describe (in ~300 words or less) the results and outcomes anticipated by this project.

- Outline project risks and how these will be addressed.

As the contracts funded through this project would span multiple fiscal years, the main deliverables would be actualized in 2025 and 2026.

March 2025 and 2026 – Approximately 25 hectares of treated area in strategic locations split between Haines Junction, Teslin and Whitehorse.

Project risks: Shortage of contractors or cost overruns are a known risk within Yukon given the current labour shortage, however timely, carefully planned project procurement should secure contractors to carry out the work within each fiscal year.

Public perception/pushback: this is unlikely to impact these projects given that they are part of Community Wildfire Protection Plans that have been endorsed by the respective municipal and First Nations government.

Budget:

(See Section D in Criteria)

Expense category	Budget	Requested from CCPN (FY 23/24)	Covered by other funding sources
Salary and wages			
Travel, accommodation and meals			
Training/workshops			
Professional services	105,000		
Research			
Communications			
Audit and evaluation			
Office supplies and equipment			
Community Information Initiatives			
Printing services			
Data collection, analysis and reporting			
Administrative costs (max 15% of total budget)			
Total project expenses	105,000		

Budget Justification:

Please include a few sentences justifying the above budget.

The budget above forecasts funding fuel treatments for 25 hectares of forested land with hazardous fuel loading. We have budgeted \$12,000/ha which is in line with the prices received for similar projects that have been competitively tendered. The related costs to this project will be covered in kind through existing staff and resources so that CCPN funding can make the maximum possible impact by being 100% applied to the treatments themselves.

From: Devin.Bailey
Sent: March 24, 2025 11:48 AM
To: Mark.Roberts
CC: Marie-Alexis.Dangreau
Subject: Fw: [Section 74\(1\)\(a\)](#)

Attachments: CCPN 2023-2024 Project WFM_PMU.docx

This is welcome news.

From: Luc.Bibeau
Sent: Monday, March 24, 2025 11:16 AM
To: Carrie.Ariss ; Patrick.Turbide ; Devin.Bailey
Subject: FW: [Section 74\(1\)\(a\)](#)

Back in black.



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Natalie.Lapierre
Sent: March 24, 2025 11:08 AM
To: Luc.Bibeau
Cc: Kirsten.Burrows
Subject: RE: [Section 74\(1\)\(a\)](#)

Hi Luc,
As discussed on the phone this morning, CCS would like to [Section 74\(1\)\(a\)](#)

Thank you and let me know if you have any questions.
Cheers,



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: March 20, 2025 4:17 PM
To: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Natalie,

Thanks for this information. We will take it if the approvals go through. I will wait to hear from you tomorrow.

Best,
Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca



From: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Sent: March 20, 2025 4:09 PM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Luc,

Section 74(1)(a)

Let me know if that makes sense or if you have any questions.
Thanks!



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: March 20, 2025 3:39 PM
To: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Natalie,
I believe we could **Section 74(1)(a)**

Let me know whether that fits with your situation or if you have any follow up questions.
Thanks,
Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca



From: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Sent: March 20, 2025 2:48 PM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Luc,
Quick follow-up question: **Section 74(1)(a)**

Thanks!



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Natalie.Lapierre
Sent: March 19, 2025 2:04 PM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Luc,
Great, thanks so much!



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: March 18, 2025 2:47 PM
To: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Natalie,

Please see attached. As you will see the entirety of the funds was spent on professional services in the form of contractors to complete the forest fuel treatments.
Please let me know if you need anything else and thanks for your support,
Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca



From: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Sent: March 18, 2025 11:57 AM
To: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Luc,

Thanks so much for your prompt reply, I appreciate it!
The JV for the entire funding amount of \$50k was received and processed (and I have a copy on file). I don't see a copy of the financial report in my records, so if you could forward that to me, that would be great!
And I will certainly let you know if we are looking to spend any additional funds this FY – it doesn't look like it now, but if anything changes as the final numbers come in, I will let you know asap.
Cheers,



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Luc.Bibeau <Luc.Bibeau@yukon.ca>
Sent: March 17, 2025 4:22 PM
To: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>
Subject: RE: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting
Hi Natalie,

Please see attached for the project annual activity report for 2024-2025. I believe we already filed our financial reporting and received the JV, please let me know if you want me to forward that to you.

As always, if another project manager does not use all their funding we will take it.

Thanks,

Luc



Luc Bibeau
Manager, Prevention and Mitigation Unit
Community Services | Wildland Fire Management
T 867-332-1993 | Yukon.ca

From: Natalie.Lapierre <Natalie.Lapierre@yukon.ca>

Sent: March 17, 2025 2:16 PM

To: Jacqueline.Mills <Jacqueline.Mills@yukon.ca>; Derek.Cronmiller <Derek.Cronmiller@yukon.ca>; Amie.Angel <Amie.Angel@yukon.ca>; Shane.Skarnulis <Shane.Skarnulis@yukon.ca>; Cody.Goulin <Cody.Goulin@yukon.ca>; Luc.Bibeau <Luc.Bibeau@yukon.ca>; Dan.Baikie <Dan.Baikie@yukon.ca>; Jim.Welsh <Jim.Welsh@yukon.ca>; Val.Benoit <Val.Benoit@yukon.ca>; Jocelyn.McDowell <Jocelyn.McDowell@yukon.ca>; Chaz.Williams <Chaz.Williams@yukon.ca>; Anett.Kralisch <Anett.Kralisch@yukon.ca>

Cc: Nina.Modeland <Nina.Modeland@yukon.ca>; Rebecka.Jones <Rebecka.Jones@yukon.ca>

Subject: 24/25 CCPN Deadlines - JVs and Financial and Activity Reporting

Hello CCPN Project Managers,

It's that time of year... reporting time! Three key deadlines to be aware of:

1) March 31st: All funds must be spent and goods/services received by this date. **If you're underspent, please e-mail me asap and let me know by how much.**

2) April 2nd:

- Submit your financial report to me (excel template attached – **please fill out both tabs**).
- Please JV ENV finance (V-FIN) **and** send me a copy of the JV for tracking purposes. Early JVs are encouraged, but **please limit JVs to one or two if possible**.
- Please **include the REF4 code** below for your project when JV'ing us. (Table with codes located below).
- **JV code: 521-115512-XXXX**

3) April 23rd: Please submit your annual activity report to me (word template attached).

Project	REF4 CODE	24/25 Budget	Project Manager
DIY Air Cleaners Workshop	AIRCLEANERS	\$26,225	Jacqueline Mills
Klondike Regional Slope Hazard Study	KLONDIKESLOPE	\$106,060	Derek Cronmiller
Emergency Management Training	EMTRAINING	\$8,000	Amie Angel, Shane Skarnulis, Cody Goulin
Community Wildfire Protection Plan Implementation in Southern Yukon	WILDFIREPLAN	\$50,000	Luc Bibeau
Tatchun Region Mobile Incident Response	TACHUNRESPONSE	\$239,054	Dan Baikie
Safety on the land Outdoor Education Courses	LANDSAFETY	\$19,715	Jim Welsh, Val Benoit
Flood Zoning Policy	FLOODPOLICY	\$50,000	Jocelyn McDowell
Building Climate Resilience / CRIT tool	BUILDINGRESILIENCE	\$250,000	Chaz Williams, Anett Kralisch

Additionally, if there have been any changes in who should be the primary point of contact for your project and emails concerning CCPN, please let me know.

Thank you, and please let me know if you have any questions!



Natalie Lapierre (she, her, hers)
Adaptation Analyst, Climate Change Adaptation, Climate Change Secretariat
Department of Environment
Government of Yukon
867-332-5747 | natalie.lapierre@yukon.ca

I respectfully acknowledge that I work within the traditional territory of the people of Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Jennifer.Sharp
Sent: April 10, 2025 1:33 PM
To: Luc.Bibeau; JohnG.Wright
CC: Devin.Bailey
Subject: FW: BCC #24-05 – RFP-2024-9-3918 – Copper Haul Road North – 70.9 Hectare Semi-Mechanized Variable Retention and Shelterwood Harvest – Request for Hearing Package

FYI. There's a few errors in her email regarding date, and she forgot to attach the information described.

I have also asked her to elaborate more fully on the advisor. I'm not entirely sure who this person should be, or what resources I have access too.

Just wanted to keep on your radar the process is moving along slowly.



Jennifer Sharp, RPF
Fuels Management Forester
Community Services | Wildland Fire Management
T 867-336-0465 | Yukon.ca

From: Meghan.Gusnowski
Sent: Thursday, April 10, 2025 8:28 AM
To: Jennifer.Sharp
Subject: BCC #24-05 – RFP-2024-9-3918 – Copper Haul Road North – 70.9 Hectare Semi-Mechanized Variable Retention and Shelterwood Harvest – Request for Hearing Package

Dear Jennifer,

The complaint received on the above-mentioned tender, along with your response (Report Package), was reviewed by the Chair of the Bid Challenge Committee to consider whether or not there is sufficient cause for the complaint, per Section 15 of GAM 2.6. It is the Chair's determination that further investigation of the issue is worthwhile.

It is the responsibility of the Procurement Authority to provide six (6) hard copies of the Report Package to the Bid Challenge Committee Secretariat prior to the hearing. Please have these delivered to the Procurement Support Centre by April 3, 2025. Please be advised that the submissions from the other Proponents on the tender are protected by the ATIPP Act and will not be given to the Complainant as part of their Hearing Package. After the hearing, all but one of the hard copies will be securely shredded. The retained package will be securely stored by the Procurement Support Centre under the relevant retention schedule and process.

I will convene a panel to hear the complaint and will be in contact with you as arrangements for the hearing are confirmed. I have included a copy of the Terms of Reference for the Bid Challenge Committee, the Bid Challenge Process: Hearing and Bid/Proposal Costs, and a pamphlet on the Bid Challenge Process.

Please note Page 4 of the Terms of Reference of the Bid Challenge Committee, Rules of Procedure, which states:

“Both parties to the complaint have the right to bring an advisor or assistant to the hearing. One person only from each party will be allowed to make a presentation. All persons attending the hearing, and their roles, shall be identified to the Chair at least two days prior to the commencement of the hearing”.

If you would like to name an advisor or assistant, or if you have any questions on the review process, please do not hesitate to contact me.

Sincerely,



Meghan Gusnowski

Bid Challenge Committee Secretariat

Highways and Public Works | Procurement Support Center

T 867-667-9425 | **W-3C** | Yukon.ca

I respectfully acknowledge that I work within the Traditional Territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

From: Devin.Bailey
Sent: April 16, 2025 4:31 PM
To: Zoe.Westerby
Subject: Needs translation
Attachments: WFM Prevention & Mitigation Projects 2025 26.docx

Hey Zoe,
Can you (or have someone) translate these payment codes from the TPA's into what they actually are?
Thanks.

Devin
Get [Outlook for iOS](#)

Wildland Fire Management – Prevention & Mitigation Projects

Funding 2025/26	Budget	Projects
Prevention Mitigation O&M YG Led Fuels Management & FireSmart	\$1.32M	Implementation and planning in support of Whitehorse fuels reduction and CWPP's in: • Dawson • Mayo • Teslin • Haines Junction
FireSmart Transfer Payment Agreements (TPAs)	\$850k	See list
DMAF (Disaster Mitigation Adaptation Fund)	\$2.14M	Whitehorse South Fuelbreak – Copper Haul Road North & South Klondike Fuelbreak Haines Junction CWPP Phase 1 Teslin Fuelbreak Project
EMAP (Emergency Management Assistance Program)	\$293k	Transfer Payment Agreements for • Little Salmon/Carmacks First Nation • Champagne and Aishihik First Nations • White River First Nation • Kluane First Nation • Trondek Hwechin First Nation • Little Salmon/Carmacks First Nation • Selkirk First Nation • Taan Kwachan Council
2 billion Trees	\$1.35M	232,000 Aspen Trees for planting this season, planning and site preparation for future years
ICIP (Investing in Canada's Infrastructure Program)	\$90k	Whitehorse South Fuelbreak – Copper Haul Road Project
RCF (Resilient Communities through FireSmart)	\$1.18M	Fuels management projects throughout the territory, capacity building, community engagement for future P&M projects.
CCPN (Climate Preparedness in the North)	\$100k	Whitehorse South Fuelbreak
Total	\$7.23M	

Wildland Fire Management – Prevention & Mitigation Projects

FIRESMART Projects 2025/26	BUDGET
CDCOCRENEIAS	\$15,000
CDMARYLKCOMM	\$15,000
CDSPRUCEHILL	\$10,000
CDPINENEIGHB	\$10,000
CDWOLFCRCOMM	\$15,000
Tagish Volunteer Fire Department	\$10,000
Town of Faro	\$30,000
CDKENOCITYCO	\$10,000
CDTAGISHFIRE	\$30,000
CDEASESIXMIL	\$20,000
CDGOLDHORNFI	\$25,000
CDMTLORNEFIR	\$30,000
CDMARSHLKESS	\$30,000
CDCOCRENEIAS	\$30,000
CDMARYLKCOMM	\$30,000
CDSPRUCEHILL	\$30,000
CDPINENEIGHB	\$20,000
CDWOLFCRCOMM	\$30,000
CDMCLEANLKRE	\$30,000
CDCOPPERRNEI	\$20,000
Hillcrest	\$20,000
Whitehorse Rifle and Pistol Club	\$20,000
CDRIVERCOMM	\$25,000
CDCITYWHH	\$100,000
Whistlebend	\$20,000
CDPORTERCRSC	\$30,000
CDPCCOMMASSN	\$25,000
Crocus Glen	\$20,000
Crewstview	\$20,000
CDHIDDENVALS	\$30,000
CDIBEXFIREDE	\$20,000
Yukon Wildlife Preserve Operating Society	\$20,000
CDDEEPCREEKF	\$25,000
City of Whitehorse (Tipping Fees)	\$35,000
Total:	\$850,000

Wildland Fire Management – Prevention & Mitigation Projects

EMAP (Emergency Management Assistance Program) Projects 2025/26	
CDLIARDINDIA	\$45,000
CDCHAMPAISHF	\$25,000
White River First Nation	\$25,000
CDKLUANEFIRS	\$25,000
CDTRONDEKHWE	\$30,000
CDLITTLESALC	\$25,000
CDRRDENACOUN	\$30,000
CDSELKIRKFIR	\$34,000
CDTAANKWACHA	\$55,000
Total:	\$293,427

RCF (Resilient Communities through FireSmart) Projects 2025/26	
C/TFN CWPP Development	\$48,880
Teslin HRIA	\$130,207
CDTOWNWL	\$25,000
CDVILLAGEHAI	\$30,000
CDJUNCTIONAR	\$30,000
CDVUNTUTGWIT	\$20,000
CDKLONDIKEVA	\$30,000
CDVILLAGECAR	\$25,000
CDNACHONYAKD	\$35,000
CDVILLAGEMAY	\$40,000
CDVILLAGETES	\$25,000
CDTESLINTLIN	\$50,000
CDDESLINDEVE	\$25,000
CDCARCROSSTA	\$20,000
CDKWANLINDUN	\$70,000
Budget \$1.199 million - Committed to date:	\$979,878.25

DMAF (Disaster Mitigation Adaptation Fund) Projects 2025/26	
Friends of Mt Sima	\$264,952
McLean Lake Residents Assn	\$150,000