

Government of Yukon – Energy, Mines and Resources

Forest Management Branch

Mummie Pup Timber Harvest Plan

Dawson Annual Limit Region

Date Prepared:

9/6/2019

Approved by
Lisa Walker

Director Forest Management Branch

Date

Sep 6, 2019.

Submitted by

Jennifer Sharp, A/Forester
Forest Management Branch

Date

Sept 6 2019

1 EXECUTIVE SUMMARY

The Mummie Pup timber harvest plan encompasses a 385 hectare area which was burned by wildland fire primarily in 2013 and most recently in 2019. This timber harvest plan is composed of fire killed spruce suitable for both commercial and personal use within the Goldfields landscape unit (Goldfields) south of Dawson City. There has been a shortage of accessible commercial and personal use fuelwood in the Dawson area over the last five years, and existing timber harvest plans in proximity to Dawson City with fire killed fuelwood have been depleted.

The objective of this timber harvest plan is to provide opportunities for small scale commercial and personal use fuelwood harvesting that are accessible during dry summer and frozen conditions. This timber harvest plan identifies three operating units and a personal use fuelwood area, with a total estimated fuelwood volume of 7,486 cubic metres (m³). Currently, access to the Mummie Pup timber harvest plan is seasonal via the Dominion Road, beginning in March and ending between late November and mid-December as seasonal road conditions permit.

Harvesting activities are scheduled to occur during dry soil or frozen soil conditions as outlined in the Soil Conservation Standards and Guidelines.

The Mummie Pup timber harvest plan sets operational goals and objectives for the issuance of harvesting rights within the planning area. The *Forest Resources Act* requires that commercial timber harvesting licences only be issued where a timber harvest plan is in place. The timber harvest plan provides mitigations and management of identified forest values.

All applications for timber harvesting will be required to meet the submission requirements of the *Forest Resources Act* Section 19(1). Applications require notification to the affected First Nation and public who reside within proximity of the application. The First Nations and public may make representations to the Director of the Forest Management for a period of no less than 30 days (*Forest Resources Act*, Section 18).

In addition, a Yukon Environmental and Socio-economic Assessment may be required prior to issuance of permits when a project falls within the requirements of the *Assessable Activities, Exemptions and Executive Committee Projects Regulations*.

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2 INTRODUCTION

The Mummie Pup timber harvest plan area is located approximately 42 kilometers south of Dawson on the Dominion Road within the Goldfields landscape unit (Goldfields) and consists of an area of approximately 385 hectares that was burned by a forest fire in 2013 and most recently in 2019 (Map – Section 5.2). Opportunities to develop commercial and personal use harvest areas close to Dawson City and surrounding residential areas are limited due to historical use, natural disturbance patterns and other land use activities. This timber harvest plan will meet the objective of providing a fuel wood supply of fire killed timber close to Dawson City.

This timber harvest plan is located on public land within the Traditional Territory of the Tr'ondëk Hwëch'in, and is consistent with the direction provided in the Dawson Forest Resources Management Plan. It has been developed to meet the requirements of the *Forest Resources Act and Regulation*.

The Tr'ondëk Hwëch'in First Nation and public may make representations to the Director of the Forest Management Branch on harvest licence applications for a period of no less than 30 days (*Forest Resources Act, Section 18*). All harvesting licence applications require notification to the affected First Nation and the public in the area of the application, and all cutting authorities issued must be consistent with this timber harvest plan, the *Forest Resources Act, Forest Resources Regulation* and approved standards.

In addition, a Yukon Environmental and Socio-economic Assessment may be required prior to issuance of permits where a project falls within the requirements of the *Assessable Activities, Exemptions and Executive Committee Projects Regulations*.

3 BACKGROUND AND PURPOSE

3.1 SOCIO-ECONOMIC CONSIDERATIONS

Dawson City has a population of approximately 1,300 people. The predominant industry in the Goldfields area is mining related activities with forestry, tourism, recreation, hunting, and trapping values present on the landscape.

The forests in the Dawson City region provide significant ecological and aesthetic values, cultural and heritage values, recreational values and other non-timber forest resources values. Dawson City's forests can sustain a vibrant, small-scale forest industry that provides timber for local markets, energy, economic opportunity, and employment for the region's residents (Dawson Forest Resources Management Planning Team, 2013). Many of the residents of Dawson City rely on fuel wood as an economical heating alternative throughout the winter. The current annual timber demand in Dawson City is approximately 3,500 cubic meters for saw logs and 1,500 cubic metres for fuel wood. The industry consists primarily of one sawmill and numerous commercial fuel wood operators.

3.2 ECOREGION AND DRAINAGES

This timber harvest plan lies in the Boreal Cordillera eco-zone within the Klondike Plateau eco-region. Leading species within the region consist of black spruce, white spruce, trembling aspen and white birch characteristic of the Boreal Low Klondike Plateau subzone of west central Yukon. Understory species are generally comprised of suckering species such as willow and aspen regeneration. The most common natural disturbance is fire, with a return interval of approximately 170 years; therefore early seral communities are most common.

Characteristic terrain features include smooth, rolling plateau topography with moderate valleys and large structural basins composed of level to undulating terrain that were not glaciated during the last ice age. Elevations range from 740 to 1,060 metres.

Loamy moraine and sandy fluvial-glacial parent soil materials are dominant in the ecoregion. Much of the ecoregion is covered by a veneer of volcanic ash between 2 and 15 centimetres thick. Permafrost is discontinuous to sporadic with high ice content associated with fine-textured valley deposits. Characteristic wildlife includes barren ground caribou, grizzly and black bear, moose, beaver, red fox, grey wolf, snowshoe hare, raven, rock and willow ptarmigan, and golden eagle.

3.3 WILDLIFE

The Dawson Forest Resources Management Plan outlines several wildlife species in the key values section within the Goldfields landscape unit.

Barren-ground caribou: The Goldfields overlap with the Fortymile caribou herd winter range (October to April).

Moose: Moose in the Goldfields landscape unit are present, generally along the ridgetops to the east and west of Hunker Summit.

Beaver: This timber harvest plan is just outside of a key wildlife area for beaver, there is potential for beaver activity in the area.

Mitigations:

This timber harvest plan will be accessed from the proposed forest resources road originating from the Almeda Road at kilometre 7.5 of Dominion Road. If Fortymile caribou are encountered within the boundary of the timber harvest plan, the operators shall halt operations until caribou have moved out of the area, and report sightings to the Forest Officer. Due to the relatively small timber harvest planning area and seasonal nature (dry summer through early winter) of harvesting operations, it is expected that caribou and moose populations will not be significantly impacted by the proposed harvesting activities.

All site plans and operational development within the timber harvest plan will be consistent with the approved Wildlife Features Standard and Guidelines available from the Forest Management Branch. Road access developed into the operating units off of the existing cat gaurds will be gated and controlled as a forest resources road.

Works within waterways that are planned or culverts that may be installed have the potential to impact beaver populations. If issues arise with beavers in the area, Tr'ondëk Hwëch'in recommends an active trapping program be planned with the Registered Trapping Concession (RTC) holder or with Tr'ondëk Hwëch'in.

See Sections 4.1 and 4.2 for further information on access management as well as seasonal timing of harvesting operations.

3.4 BIODIVERSITY

To maintain landscape level biodiversity over time, both the harvest rate and cut/leave pattern was considered. Forest harvesting should attempt to emulate the natural disturbance zone regime, as described in the Dawson Forest Resources Management

Plan. Operational constraints will often limit the size of harvest openings. Areas with live trees will serve as retention and reserve areas.

3.5 SOILS, RIPARIAN AND WATER RESOURCES

The moisture regime is mesic to moist depending on aspect, with avoidable wet spots at lower elevation bands. Sandy loam soils are present. The timber harvest planning area is bound by Dominion Creek to the south and All Gold Creek to the north. Mummie Pup Creek runs through the timber harvest planning area with two small contributing tributaries and drains into Dominion Creek.

Harvesting activities will be determined in the site plan using the Soil Conservation Standards and Guidelines to identify the maximum allowable percentage of soil disturbance and associated hazards. Utilizing existing access in the area will help minimize any soil compaction in the harvest areas. Riparian features will have protective reserves established as per the Forest Management Branch Riparian Management on Streams and Lakes Standards and Guidelines.

3.6 RECREATION AND VISUAL IMPACTS

The Mummie Pup timber harvest planning area within the Goldfields is not considered a high-use recreational or visitor area. Visual impacts from forestry operations in the area are expected to be low. Irregular boundaries, along with boundaries that follow the natural lines of force and existing disturbance will yield a harvest area that is natural in appearance. It is expected that the harvesting activities will be the most visible in the first three years, after which time they will much less visible.

3.7 ARCHAEOLOGICAL AND CULTURAL VALUES

The Yukon Government Department of Tourism and Culture, Heritage Resources Unit has identified areas with elevated potential for heritage resources within the Mummie Pup timber harvest planning area. Harvest activities that could impact the ground surface in areas with elevated potential for heritage resources will require a heritage impact assessment. Types of harvest activities that could impact ground surface include road building, graded trail building, heavy equipment use, skidding, stream crossings, scarification, and graded landings.

It will be incumbent upon all personal use and commercial harvest permittees to report any heritage resources, if discovered during harvesting to the Dawson Natural Resource Officer. The Forest Officer will immediately contact both the Tr'ondëk Hwëch'in Heritage Department and the Government of Yukon Heritage Resources Unit.

All permittees should familiarize themselves with the following Heritage Handbook and Best Management Practices before working in the Mummie Pup Timber Harvest Plan:

http://www.tc.gov.yk.ca/pdf/Heritage_Handbook_2007.pdf

http://www.tc.gov.yk.ca/pdf/Land_Use_and_Land_Application_BMP.pdf

3.8 DISTURBANCE

The Goldfields area has experienced significant disturbance from historical and current mining and mineral exploration activities. There are numerous placer and quartz claims overlapping the Mummie Pup timber harvest planning area, as well as existing access, cut lines and exploration trenches present.

3.8.1 Mining overlap

Section 5.4 of the Dawson Forest Resources Management Plan supports the use of commercial timber on mining claims that are present within a timber harvest plan. Under the *Quartz and Placer Mining Acts*, a claim holder may only cut timber where timber rights have not otherwise been granted prior to the staking of a claim, and use the timber for mining-related purposes on their claim. The claim holder does not have the exclusive rights to the timber on that claim.

Prior to the Forest Management Branch issuing commercial harvesting permits or forest resources permits, the mining claim holder will be sent a notification by the Dawson mining recorder's office of timber harvesting interests that overlap with the claims. If there is timber on site that the mining claim holder requires for mining purposes, the claim holder has to respond to the notification within the 2-week time period and give details of the volume (m³) and species required prior to the Forest Management Branch issuing a commercial timber permit or forest resources permit. The Forest Management Branch will then facilitate communication between the timber permittee and the claim holder to coordinate activities on the land base.

3.9 OTHER LAND USERS

Registered trapping concession 54 overlaps the timber harvest plan area. The concession holder was notified on December 17, 2018 and invited to make a representation regarding interests within the Mummie Pup timber harvest planning area.

3.10 FOREST HEALTH

The Goldfields is a mosaic of recent burns with a healthy understory and presently shows no major forest health concerns. Natural populations of forest insects and diseases exist within the planning area, and play an important role in the function of a healthy ecosystem. For a more complete list of common pests and diseases that are present in the area, refer to the 2015 Forest Health Report for zone 3, which includes the Dawson forest resources management plan area. Both systematic and general observations and reporting of insect and/or disease continue throughout the region on a regular basis, and an aerial survey of zone 3 is planned again for the summer of 2020.

4 ACCESS MANAGEMENT AND HARVESTING OPERATIONS

4.1 ACCESS MANAGEMENT

The Forest Management Branch regulates the construction, maintenance and decommissioning of forest resources roads according to the specifications outlined in the *Forest Resources Act* and *Forest Resources Road Standards and Guidelines*.

A detailed map in section 5.2. shows the proposed access to the timber harvest plan. Existing roads and trails will be utilized to access the the timber harvest plan area. The Almeda trail originates at kilometre 7.5 of the Dominion Road. Approximately 2.5 kilometers up the Almeda trail, a cat guard was constructed along the ridge top in 2019 to access a wildland fire. This existing cat guard will be developed into a forest resources road. Forest resources roads are not public roads, and developed roads may be restricted (gated) to timber resource permit holders in order to reduce negative environmental impacts, manage for safety or other considerations.

Construction of a class 3 forest resources road approximately 3 to 5 kilometers in length is required to be built off of the existing cat guard to gain access to the operating

units MP1, MP2 and MP3. This road will descend downhill through operating unit MP 2 where it will then switch back to achieve grade into operating units MP1 and MP3. The terrain varies from 15-30% slope on southerly to northerly aspects. Long, broken slopes will require side cuts during construction to achieve a maximum 8% adverse road grade. Skid trails or class 4 forest resources road may suffice to access personal use fuelwood opportunities in operating unit MP3. This forest resource road will be gated to manage access into the operating units.

A second option is to utilize an old overgrown existing access into the timber harvest plan area at kilometre 4.9 of the Dominion Road. This access point would require significant upgrades to bring it to forest resource road standards. While not currently planned, if this access were to be used, an access to a highway or work within the right of way permit(s) from the Department of Highways and Public works would be required. Any work would meet the specifications as outlined in the permits.

Construction of new roads will require an assessment by the Yukon Environmental and Socio-Economic Assessment Board (YESAB). Construction planned for summer months may require stream assessments to determine if they are fish bearing. Low stump (skid) trails will be developed throughout the operating units, however these do not require a YESAB assessment and disturbance will be limited according to Forest Management Branch's standards and guidelines.

All forest resources roads constructed will be decommissioned following completion of harvesting and silviculture activities to manage for erosional concerns and to limit access following the completion of harvest and silviculture operations, unless otherwise stated.

See Section 5.2 for a map of the proposed timber harvest plan area, and information regarding existing and proposed access into the Mummie Pup timber harvest plan area.

4.2 OPERATING UNIT AREAS AND VOLUME SUMMARIES

This timber harvest plan identifies three operating units and a designated personal use fuelwood area, covering approximately 385 hectares of burned area with a total estimated fuelwood volume of approximately 7,486m³. Refer to the map in section 5.2. for a depiction of the operating area. Just under half of the burned area within the

timber harvest plan consists of non-merchantable timber, green timber, non-operable terrain or reserves.

Table 1 provides a summary of areas and estimated fire killed timber volumes in the operating unit identified.

Table 1 – Area and Volume Summary for Operating Units

Operating Unit (MP)	¹ Spruce Leading (ha)	² Average Spruce Volume (m ³ /ha)	³ Total Volume of Spruce
MP 1	88	40	3,520
MP 2	27	51	1,377
MP 3	45.6	30	1,368
Personal use fuelwood (PUFW)	40.7	30	1,221
Total	201.3	-	7,486
non-merchantable or reserve	183.7	<20	-
totals	385	-	7,486

¹ Spruce leading that are have > 50% spruce (white or black) and may contain < 50% deciduous (aspen).

² Average spruce volume (m³/ha) across both spruce and deciduous leading areas for each operating unit.

³ Total volume (m³) of spruce for operating unit calculated by multiplying average spruce volume (m³/ha) with total spruce and deciduous leading areas (ha) for each operating unit. This area includes portions of 2019 burned volume.

4.3 OPERATIONAL HARVEST SCHEDULING

The majority of the operational area consists of standing dead fire killed timber from a wild fire in 2013, however approximately 15% of the total operating unit area in MP1 and MP3 are areas of standing dead fire killed timber from the recent 2019 burn.

Operating units MP 1, MP 2 and to a lesser extent MP 3 have potential for commercial harvesting interests, whereas the personal use fuelwood area are identified for non-commercial interests. Once the area has been harvested for commercial purposes, the Forest Management Branch may manage the area for personal use fuelwood harvesters, silvicultural activities and eventual forest resources road decommissioning.

It is anticipated that the time to complete these activities is 10 years from the approval of the timber harvest plan, however the duration of commercial harvest activities will be dictated by commercial interest in developing the area.

All proposed commercial harvesting operations are required to submit site plans to be approved by the Forest Management Branch, in advance of issuance of a cutting permit. The site plan will contain the operational details of harvesting as defined in the Forest Resources Regulation, Section 22. This includes soil descriptions, season of operability, slopes and special concerns (constraints), stand and site conditions, roads and landings descriptions, riparian buffers, management objectives, site prescription, and the reforestation plan.

Soil conditions indicate moderate compaction, surface, and displacement hazard ratings. There is suitable potential for both dry summer and frozen winter seasons for road construction and harvesting, however this will be assessed further during site plan development.

4.4 SILVICULTURE SYSTEMS AND REFORESTATION

Natural regeneration is the preferred method of regeneration for all operating units. During site plan development, advanced regeneration will be assessed to guide harvest operations to protect advanced regeneration.

Newly bladed trails, roads and landings used during frost free conditions (summer/fall) may require scarification to reduce compaction and aid in the re-establishment of vegetation within the harvest area following harvesting.

After harvesting operations are complete, the harvest areas will be assessed to determine regeneration options. The Soil Conservation Standards and Guidelines limit the amount of on block disturbance and are designed to promote the establishment of early successional forest and vegetation. Silviculture activities will be guided by the Silviculture Strategic Plan.

5 APPENDICES

5.1 REPRESENTATION SUMMARY

Representations were received during the development of the development of the draft timber harvest plan, and during the public notification period held from April 29, 2019 to May 29, 2019. After this public notification period, Dawson wildland fire 20 started in the vicinity of the Mummie Pup drainage, and burned around the existing 2013 wildland fire. Existing access at the Almeda Road was improved, and a new cat guard was built directly to the 2013 burn along the ridge to from the Almeda Road. This resulted in changing the proposed access point in the draft timber harvest plan, which is at kilometer 4.9 of the Dominion Road, to using the Almeda Road and the new cat guard instead. The existing access requires significant upgrades and road construction. Using the improved Almeda Road and the new cat guard reduces additional access points being opened up into the area. An exclusive personal use fuelwood area was also included within the timber harvest plan boundary for the final draft.

Representations were received from:

- Department of Environment, Government of Yukon, Northern Regional Biologist
- Department of Tourism and Culture, Heritage Resources Branch, Government of Yukon
- Tr'ondëk Hwëch'in, Land & Resources Department

The following table contains a summary of the representations received, with mitigations proposed. These mitigations have been incorporated throughout the timber harvest plan in appropriate sections.

1. Representations received from Department of Environment, Government of Yukon. Northern Regional Biologist.

Representation (paraphrased from email / personal communications)	Mitigation
a) <u>Fortymile Caribou Herd</u> : Environment does not have any critical wildlife concerns in this THP area. Fortymile caribou herd use the ridge system to the east of the proposed area (east of Hunker Summit) however no	As per Section 3.3.: i) Currently the THP is only accessible during late spring, summer and fall seasons, and non-accessible during winter months as the Dominion Road is not maintained. ii) The following term will be included in cutting permits: All caribou sightings (or other unique wildlife) shall be reported the Forest Officer in

<p>observations have been recorded in the THP area. Potential for caribou to occupy this area if they are in significant numbers during the winter.</p>	<p>Dawson, who will also report the sightings the regional biologist and Tr'ondëk Hwëch'in Lands and Resources Department. Permittees will halt operations if caribou are sighted, and can return once caribou have departed the area.</p>
<p>b) <u>Moose:</u> Moose observations have been recorded in the area.</p>	<p>As per Section 3.3.:</p> <p>i) The expected small scale of operations coupled with previous disturbance in the Mummie Pup THP vicinity leads to an expectation that moose will not be significantly impacted by the proposed harvesting activities.</p>
<p>c) <u>Access:</u> Question regarding whether access is from Hunker Summit or Dominion Road</p>	<p>As per Sections 3.3. and 4.1.:</p> <p>i) Access to the area will be from the Almeda Road via Dominion Road rather than from Hunker Summit to reduce the likelihood of human wildlife interactions, and for ease of access. The Almeda Road accesses a cat guard that was constructed in the 2019 season that runs all the way north to Hunker Summit. Part of this cat guard will be designated Forest Resources Road. It will be bermed and gated from the Almeda Road into the Mummie Pup THP to prevent access to the public from the Hunker side and the Almeda side. This will also reduce human wildlife interactions.</p> <p>ii) There is also an existing access point to the proposed harvest area at km 4.9 of the Dominion Road which could be used however it requires significant construction upgrades including clearing and grading.</p>

2. Representations received from Department of Tourism and Culture, Heritage Resources unit, Government of Yukon.

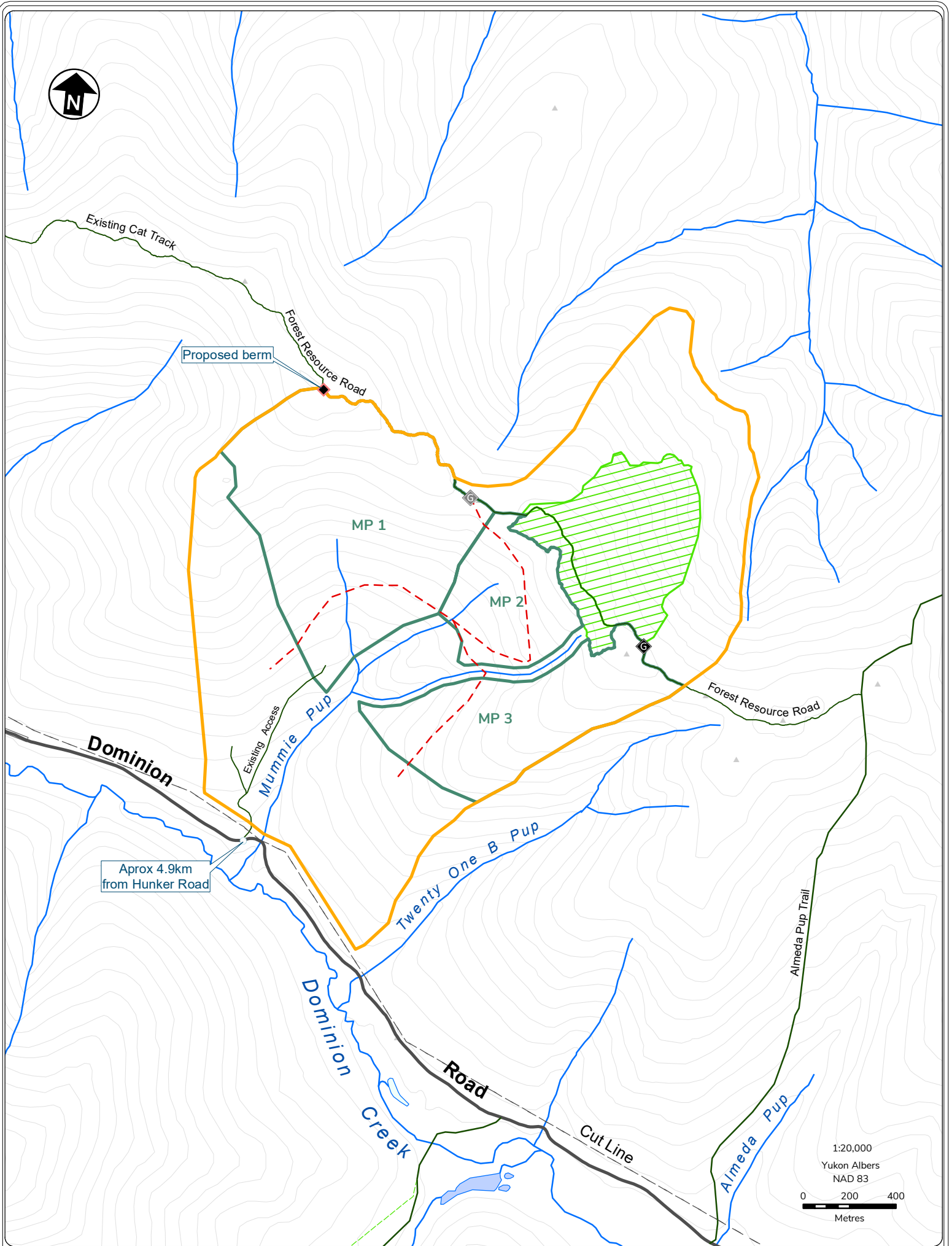
Representation:	Mitigation
<p>a) Areas of high heritage potential exist in the area and may be found within the operating units if there</p>	<p>As per Sections 3.7.:</p> <p>Areas identified with high heritage potential will require a heritage impact assessment if ground disturbing activities occur. Currently no ground disturbing activities are to</p>

are ground disturbing activities	occur in high heritage potential areas of the timber harvest plan.
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3. Representations received from Tr'ondëk Hwëch'in, Land & Resources Branch

Representation	Mitigation
<p>a) <u>Beaver:</u> Work should be limited in high quality beaver habitat areas. In areas where activities will impact the beaver population (culvert installation or in-stream works), Tr'ondëk Hwëch'in recommends an active trapping program be planned with Registered Trapping Concession (RTC) holder or with Tr'ondëk Hwëch'in.</p>	<p>As per Section 3.3.:</p> <p>i) It is not anticipated at this time that any works in water or culverts will be required for development of a Forest Resource Road into the Mummie Pup Timber Harvest Plan area. The THP itself lies just outside of wildlife key area for beaver habitat. If any issues arise with beaver migration or beaver activity as a result of any in-stream works, Forest Management Branch will coordinate a trapping program with the RTC holder and/or Tr'ondëk Hwëch'in.</p>
<p>b) <u>Concerns regarding increase access along ridge top from Almeda Road to Hunker Summit</u></p>	<p>As per Section 4.1.:</p> <p>The portion of the new cat guard running along the ridge from Almeda Road to Hunker Summit will be designated Forest Resources Road, the north end will have a berm to prevent public access by ATV into the THP area. The southern end will have a gate to prevent ATV and 4x4 vehicle access.</p>
<p>c) <u>Placer Claims on Mummie Pup and Almeda</u></p>	<p>No harvesting will overlap with existing claims / water licences on Mummie Pup and Almeda.</p>

5.2 MAP



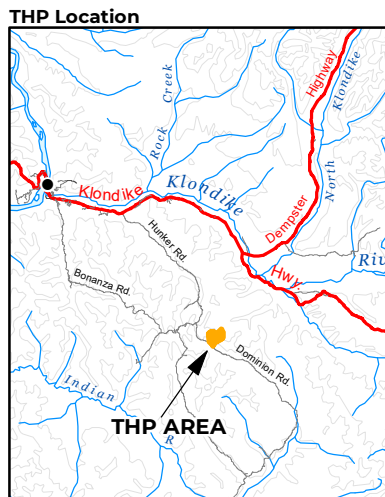
2019 Mummie Pup Timber Harvest Plan Area

NRO District: Dawson
AAC Region: Dawson FRMP

THP STATS
 THP Area: 384.7 ha.±

Date: September 06, 2019
 For more timber harvest information, visit our website:
www.yukon.ca or www.emr.gov.yk.ca/forestry/

Forestry spatial data managed and maintained by the Forest Management Branch, Yukon Government. All other spatial data provided by Geomatics Yukon. Map produced by FMB-GIS.



Project Specific Features

- Proposed Gate Location
- Existing Gate Location
- Proposed in block roads
- Cut Lines
- Existing Access
- Local Road
- Timber Harvest Plan Area
- Proposed Operating Units
- Proposed PUFW

Land Administration

- Agricultural Land Dispositions
- Land Dispositions
- Land Notations
- Easements
- Surveyed Land Parcels

First Nation Administration

- Surveyed Settlement Lands
- Unsurveyed Settlement Lands
- Interim Protected Lands

