

Forest Management branch

DRAFT Bonanza Creek II Timber Harvest Plan

Dawson Annual Limit Region

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Executive Summary

The objective of the Bonanza Creek II Timber Harvest Plan (THP) is to provide Dawson Annual Allowable cut region with a sustainable supply of economical timber in an integrated and balanced approach to forest management. Under the *Forest Resources Act*, all commercial harvesting must be conducted under an approved THP. Bonanza Creek area has been a traditional harvest area for Dawson's timber supply. This THP proposes to continue harvesting within the 238 hectares (ha). This THP is consistent with both the Dawson Forest Resources Management Plan and direction provided in the *Forest Resource Regulation* of the *Forest Resources Act*.



Photo 1 – Birch within the Bonanza Creek II THP

1.0 Introduction

1.1 Background

The Bonanza Creek II THP is located 14.6 km south of Dawson along the Bonanza Road, and is located in the Tr'ondëk Hwëch'in Traditional Territory. It is within the Goldfields Landscape unit of the Dawson FRMP which has a high priority for planning. It should be noted that a larger landscape level THP will be developed which will be consistent with this THP which is being developed to address current wood supply needs. This landscape unit has numerous placer and quartz mining claims, as well as historic sites that are within the THP boundary. The area is composed of stands consisting primarily of paper birch with minor components of black and white spruce. Evidence shows that the vast majority of this area was cleared with axes, likely during the construction of the historic Yukon Ditch. The area was later burned, likely by wildfire, resulting in well stocked productive birch dominated stands. The estimated harvest volume of birch in this THP is 10,268.75m³.

1.2 Eco-region and Drainages

This THP area lies within the Upper Yukon watershed as part of the Klondike Plateau ecoregion. Characteristic terrain features include smooth, un-glaciated, rolling plateau topography with moderate to deeply incised valleys and large structural basins composed of level to undulating glaciated terrain. These stands are on the slopes of ridge features in the Bonanza Creek drainage with grades ranging from 5 to 30%. The forest stands targeted for harvest are made up primarily of paper birch (*Betula papyrifera*).

This area falls within the boreal highlands bioclimatic zone. Black and white spruce are the dominant trees and equally abundant within the area. Birch is also common, while aspen is infrequent. The zone is characterized by shrubby vegetation on warm south and west aspects while cool north and east aspects are often tree dominated. Riparian and wetlands areas are uncommon covering 2 and 4% respectively of the zone.

1.3 Socio-economic Values

Dawson City is home to approximately 1,300 people. The major economic drivers in the region are tourism and gold mining. The current annual fiber demand in Dawson is approximately 5000m³. The industry consists primarily of one sawmill and numerous smaller scale harvesting operators. The forests in the Dawson region provide significant ecological and aesthetic values, cultural and heritage values, recreational values, and other non-timber values. Dawson'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 FRMP, 2013). Many of the residents of Dawson rely on this commercial timber resource as an economical heating alternative throughout the winter. Milling of green spruce for local lumber use has been an ongoing small scale activity since the gold rush.

2.0 Planning Area Identification

The total area identified is 238.2 ha with an estimated harvest volume of 10 268.75 m³. Table 1 below shows a breakdown of the area and volume by operating unit (OU).

Table 1- Area and Volume Summary

OU	Gross Area (ha)	Reserve (ha)	Net Area (ha)	Vol/Ha (m³/ha)	Net Volume (m³)	Retention (%)	Harvest Volume (m³)
BC 1A	78.2	5.2	73.0	53.0	3,869.00	15%	3,288.65
BC 1B	71.1	5.1	66.0	80.0	5,280.00	15%	4,488.00
BC 2	88.9	17.9	71.0	39.0	2,769.00	10%	2,492.10
Total	238.2	28.2	210.0		11,918.00		10,268.75

2.1 Wildlife

The FRMP outlines several wildlife species in the key values section for the Goldfields landscape unit. They include Barren-ground caribou (winter range), raptor nest sites, Beaver Key habitat, Sharp-tail grouse key habitat, ungulate mineral licks, and moose (high density). This THP does not include Key habitat for caribou winter range or key habitats for other species listed in the key values or the focal species of the FRMP.

All site plans and operational development must be consistent with approved wildlife standards available from Forest Management Branch (FMB). These standards were developed to ensure well thought-out and balanced planning occurs with respect to wildlife and forest resources. Throughout the preliminary reconnaissance and consultation, no significant wildlife concerns were noted. This area does not conflict with any fish or wildlife management plans. In order to help monitor wildlife health, Tr’ondëk Hwëch’in asks that any unique animal sightings be reported to the Tr’ondëk Hwëch’in Fish and Wildlife Department.

2.2 Riparian and Water Resources

Forest Resources Regulation and riparian management standards and guidelines are in place to manage and mitigate effects to streams and water resources. Pure Gold creek is located south of operating unit BC2 and is outside of the riparian management area (RMA) of this creek. There are no streams within the proposed harvest areas. Pure Gold creek crosses the existing road that will be used for access into this THP. This stream has been assessed and deemed non-fish bearing due to fish barriers on both sides of the crossing.

2.3 Visual Impacts

This THP intends to meet the direction outlined in the FRMP. The strategic direction is to:

Integrate management of valued landscapes into planning along the Dempster and North Klondike highway corridors and major recreational and historic trails and routes, including waterways.

Design harvest blocks that simulate natural forest openings and blend into the landscape to reduce the visual impacts.

This THP has limited visibility from major transportation routes such as the Klondike Highway and the Top of the World highway. Part of this THP will be visible from the top of the Midnight Dome and the historic Ridge Road trail. Visual impacts from harvesting within this THP will be minimal. Although much of this area is located on slopes, there are many shrubs and immature trees, leave trees, and pre-existing landscape disturbance which will soften the visual effects of harvesting. Harvest Blocks within the Operating Units will be irregular in design, mimicking the natural landscape and lines of force.

Unit BC-1A and 1B are adjacent to the historic Ridge Road Trail which provides access and hiking/biking opportunities to the public. These blocks will have a 50m no harvest buffer applied. The trail exists on the ridge and the slopes fall away from this trail which puts these blocks out of sight. There will be little to no visual impacts for travelers of this historic trail.

2.4 Heritage and Archaeological Sites

The Heritage Resource Overview Assessment (HROA) has identified 3 heritage reserves as well as the Ridge Road trail and the Yukon Ditch (see Heritage Site Map). The three heritage reserves are within the THP boundary but outside of the harvest boundaries and will not be affected.

There will be no harvesting within 50m of the ridge road trail as requested by the heritage branch of the Yukon Government. The Ridge Road hiking trail shall not be used for any logging activities. There will be one designated crossing on the ridge road trail in order to extract wood from block BC 1B down the Forest Resource road to Bonanza Creek road. This crossing will be done in such a way that it protects the integrity and of the ridge Road trail, and allows access through the ridge road trail while blocking access onto the newly constructed Forest Resource road.

There will be up to 2 designated road crossings and up to 3 designated skid trail crossings across the Yukon Ditch. These crossing locations have been chosen in areas that will minimize disturbance of the Yukon Ditch. To further protect this historic feature, logs will be placed in the bottom of the ditch, with fill material overtop of the logs, resulting in minimal disturbance of the Yukon Ditch. These logs along with fill material will be removed upon completion of timber harvesting activities. The Yukon Ditch proposed crossing south of BC 1A has been field inspected by Rebecca Jansen from the Historic Site Registrar of the Yukon Government.

Tr'ondëk Hwëch'in requests that any heritage resources located be reported to the Tr'ondëk Hwëch'in Heritage Department.

2.5 Soils Conservation

All harvesting operations must follow approved FMB soil standards. These standards will ensure that the soil productivity and hydrologic function of soils is maintained across all sites. Harvesting activities will be determined in the site plan using the soil standards to assign allowable percent soil disturbance and associated hazards. Utilizing existing access in the area will help minimize any soil compaction in the harvest areas.

2.6 Traditional Land Users

The Bonanza Creek II THP area is known for traditional hunting and berry picking, and there is on-site evidence that birch bark, and conks are being harvested. The Tr'ondëk Hwëch'in have the right to harvest as set out in Chapter 17 of their Final Agreement. Many of these non-timber forest products will still be available following harvesting of the area. Certain NTFP's such as berries are likely to increase in production. Leave tree patches and adjacent areas will provide for opportunities for all traditional and other NTFP interests. As the harvested stand regenerates, these values will be maintained.

Registered trapping concessions (TC) 53 and 27 also lie within the Bonanza Creek II THP area. The concession holder for TC 53 was contacted by telephone on June 10th 2014 regarding his trapping concession. He has no concerns with harvesting in the proposed areas. Concession 27 is being managed by the Department of Environment due to its close proximity to residential homes. There are currently no trapping permits in this area. The concession managing body was consulted and has no concerns with the harvest outlined in this THP. This THP should have no impact on trapping activities in the area.

2.7 Recreation

The primary recreational opportunities within the THP are from the historic Ridge Road trail as outlined above in section 2.4. Activities include hiking and biking. There has also been interest in developing a paragliding platform off the Ridge Road trail. These harvesting activities will not block access during operations, nor will harvesting be visible from this feature. With the developments of new mountain bike trails in the Dawson area, it is expected that interest in new trail development will lead to an increased network of recreational trail systems. This THP would provide excellent opportunities for the development of such trail systems if the opportunity should arise. Development of this THP is not expected to impact existing recreational values, and it may help facilitate future recreational opportunities.

3.0 Harvesting Section

3.1 Harvesting

Fifteen percent in-block basal area retention will be targeted where practical. Retention requirements will vary for each block consisting of mature trees and snags, and existing regeneration. These requirements will be established in more detail in the Site Plan.

Retention priority will be put on all large dead white birch with conks, providing available conks and bark for local First Nation use. The retention will also provide structure now and provide coarse woody debris in the future. Retained mature live birch will provide a long term seed source. Harvesting operations shall minimize unnecessary damage to any regeneration. Harvesting the majority of the mature stems is necessary to mimic a natural disturbance pattern providing the best opportunity for the establishment of the regeneration and success of the future stand. It is also necessary for the economic viability of the harvesting which will decrease the number of areas needed to be accessed.

Harvesting methods will include both hand and mechanical falling. Harvesting activities are eligible to begin in dry weather conditions and last until break up in the spring of the following year. Harvesting is expected to continue in the area within the seasonal restrictions for approximately 5 years or until the harvesting of the projected volume is completed.

3.2 Reforestation

Natural regeneration with preference to birch is the preferred option with artificial regeneration being used to supplement natural regeneration when necessary. Birch coppices and seeds well, and is expected to regenerate these areas naturally. The in-block retention of some mature birch will act as seed trees.

The schedule for a post-harvest establishment survey will be outlined as part of the site plan for each harvest block. The results of this survey, and the Forest Resources Regulation, silviculture standards and guidelines, and the site plan will guide decision-making with respect to regenerating these harvest blocks.

3.3 Site Plans

All proposed harvesting will require site plans approved by FMB, and will address the following details; stand management objectives, ecology and site conditions, stand conditions, harvesting method, riparian management soil conservation, forest protection measures, access management and a reforestation plan. These site plans are signed by the licence.

4.0 Access Management Considerations

The objective is to minimize the creation of long-term access. There will be 1.35 km of existing road used to access this THP. This existing access will have minor upgrades such as brushing and grading. There is one proposed mainline and 4 spur roads totaling 7.3km of new road construction.

These roads will be built as a Forest Resource road under the Forest resource Act and will be gated providing access for only holders of a permit issued by the Forest Management Branch. Any new permanent road development will require a Yukon Environmental and Socio-economic Assessment.

The following table outlines the access that will be used in this THP.

Table 2 - Road Summary

Road Name	State	*Class	Length (km)	Comments
Pure Gold rd.	Existing	Un-maintained highway (HPW)	1.35	Needs minor maintenance
Bonanza II Mainline	Proposed	Class 4 FRR	3.7	Requires 3 gates. Crosses the Yukon Ditch
Spur 2A	Proposed	Class 4 FRR	1.0	
Spur 2B	Proposed	Class 4 FRR	1.8	
Spur 1A	Proposed	Class 4 FRR	0.5	
Spur 1B	Proposed	Class 4 FRR	0.4	Crosses the Yukon ditch

* The class of road is based on the draft FMB Forest Resource Road standards.

5.0 Timber Harvesting and Mining

The FRMP (section 5.4) supports the use of commercial timber on mining claims, the FRMP sets out the following strategic direction:

Ensure that the higher value timber in riparian areas where placer mining activity is occurring is accessible and is being utilized by the forest industry or other users.

If possible reduce or remove forest management guidelines and standards for riparian management if placer activity is planned or is occurring in the riparian management area so that the forest industry operators can salvage the forest resource before it is impacted by placer activity.

Ensure that clarity and proper approvals are sought from regulatory authorities pertaining to rights to harvest timber on mining claims.

This THP includes 3 separate claim holders with numerous claims within proposed harvest boundaries. These claim holders will be consulted by the mining recorder on behalf of the Forest Management Branch as per the Timber on Placer Mining Claims operational standard. It should be noted that the authority to cut timber on any placer mining claim comes from the *Placer Mining Act*. This THP does not have the authority to determine placer mining activities in this operating unit.

6.0 References

Dawson Forest Management Planning Team. "Dawson Forest Resources Management Plan." March 2013.

Silvatech Group (2008). Bioclimate, Ecodistrict and Ecologically Significant Features Mapping for the Dawson Planning Region, Yukon. Produced for Environment Yukon, Government of Yukon.

7.0 Appendices

Appendix 1: Bonanza Creek II THP Area Map

Appendix 2: Representations

Appendix 1:

Map of Bonanza Creek II Timber Harvest Plan

Appendix 2: Representations

Bonanza Creek II Timber Harvest Plan Prepared: June, 2014

Prepared by: Dawson Area Forester

There were comments received from **XX and XX** during the notification period on the 2014 Bonanza Creek II Timber Harvest Plan held from **XX**. The following table summarizes their comments:

Organisation	Topic	Mitigation