



Canadian Forest Products Ltd.

BLOCK SITE PLAN 0

Fort St. John Division

25-Oct-2022

A. Tenure Identification:

License	Permit	Block
A18154	824	21106

B. Area Summary:

Gross Area (ha)	NAR (ha)	Permanent Access (ha)	WTP (ha)
101.7	84.5	5.5	8.8

C. Soil Disturbance Limits (FPPR Sec. 35(3) and (4)):

SU	Max Allowable Soil Disturbance of the NAR (%)	% Max Allowable Soil Disturbance of NAR Temporarily Exceeded	Max Allowable Soil Disturbance at Roadside
A	5.0%	0 %	25.0%
B	5.0%	0 %	

D. Permanent Access Structure Limits (FPPR Sec. 36(1) and (2)):

Max Permanent Access (%)
5.0

E. Post Harvest Stocking Requirements (FRPA Sec. 29(1)):

SU	NAR (ha)	Species		Stocking (Well Spaced Stems/ha)					Min Inter Tree Dist	Height vs. Comp (%)	Regen Delay (Years)	Free Grow (Years)	Max Coni (st/ha)	Post Space Min	Post Space Max
		Preferred Crop Tree Height (m)	Acceptable Crop Tree Height (m)	Standards ID	Layer	Target (p/a)	Min (p/a)	Min (p)							
A	51.4	BI 0/Pli 0/Sb 0/Sw 0	-	1000528	Regeneration Layer	1,200	700		1.5	0	15	15	0		
B	33.1	BI 0/Pli 0/Sb 0/Sw 0	-	1000527	Regeneration Layer	1,200	700		1.5	0	15	15	0		

F. Objectives Set by Government:

Objective	How Intended Result/Strategy Applies
Long-term Timber Management	This block is developed to meet and exceed the requirements set out by the Fort St. John Pilot Project Regulation, the 2018 SFMP #3 for the Fort St. John Pilot Project Regulation and the 2017-2023 FOS. The goal is to maintain a healthy functioning forest that meets the needs of all users and will be productive now and well into the future.
Soil	<p>A maximum of 5% of the total aggregate area in cutblocks in which harvesting was completed, during the annual reporting period by managing participant, is to be occupied by permanent access structures as determined on a 3 year rolling average. The permanent access structure area for this block is 5.8% by total block area. Permanent access structures exceed the 5% maximum due to existing road running through this block. This existing road is in poor location to facilitate safe roadside harvest operations due to excess slope thus additional roads have been added.</p> <p>Site disturbance levels should be monitored during harvesting to minimize the risk of soil degradation and potential loss of site productivity. This block is within the Boreal Plains NDU which has a limit of 5.0% soil disturbance that is not roadside.</p> <p>-All newly constructed block roads will be deactivated once harvesting is complete. Access via 21-063-04 road will not be maintained for silviculture due to restrictions of site alteration permit.</p> <p>-Debris will also be placed strategically along areas of the roads to discourage motorized traffic. Debris could include road strippings from when the road was constructed and harvesting log debris from the waste piles. (see highlighted roads on deactivation map).</p>

Wildlife

During the time of block development, there were no wildlife resource features found. If wildlife resource features are found at the time of harvesting, activities will be modified as necessary to protect the feature.

Through coarse-filter GIS analysis and field verification, Wolverine and Northern Caribou are listed as potential species at risk for this block. Therefore, in accordance with the "Stand-level Management Guidelines for Selected Forest Dwelling Species in the Fort St. John Timber Supply Area" and linkages 6.2, 6.3, 6.5, 6.6, 6.7, 6.9, 6.12, 6.16, 6.18, 6.19, 6.20, 6.21, 6.22, 6.45 of the SFMP - Fort St. John Pilot Project, the following guidelines have been implemented:

Key habitat features for the Wolverine include:

- i. Forest stands with >50% canopy cover, where canopy has begun to develop layers (i.e. with dominant, intermediate, and shrub layers)
- ii. An abundance of larger piece size CWD (>30cm diameter)
- iii. Cliffs, talus slopes, rocky outcrops, shrubby avalanche tracks, ridges, and alpine meadows
- iv. Ungulate winter ranges (i.e. southerly and west facing slopes) or other locations
- v. Where ungulates may congregate (e.g. mineral licks and wallows)

This block did not exhibit any of these habitat features therefore the following management guidelines will not be implemented.

Key habitat features for the Northern Woodland Caribou include:

- i. Open canopied (25-55% crown closure) mature and old pine and pine/spruce stands that contain abundant terrestrial lichen (especially *Cladonia* spp.) as winter forage,
- ii. Exposed, windblown alpine slopes with abundant terrestrial lichen.

This block did not exhibit the above listed habitat features. The following management guidelines are to be implemented for this block to meet objectives for Caribou management in this operating area:

- i. All newly constructed block roads will be deactivated once harvesting and the initial planting program is complete. Debris will also be placed strategically along areas of the roads to discourage motorized traffic

-Canfor will shutdown harvesting (bunching and skidding) equipment if Caribou are seen within 300m of block boundary until animal has left the area

Migratory Birds:

This block overlaps with rank 4 and 5 nest density polygons. If practical, avoid harvesting the entire block during restricted period 1 which is May 15 to August 4. If the end date of August 4 is not workable, July 20th may be used instead. If both these dates are not practical, harvesting may occur within this period if two migratory bird Best Management Practices are applied.

Fish Habitat	See Section G: Riparian Management. If additional riparian features are found at the time of harvesting, activities will be modified as necessary to protect the feature.
Community Watersheds	There are currently no community watersheds within the FSJ TSA.
Biological Diversity	<p>This block is in the Trutch Landscape Unit.</p> <p>SFMP Target: The target Cumulative Wildlife Tree Patch (WTP)% for this landscape unit is 5%. Actual results will be summarized in annual reports.</p> <p>Description and Strategy: There are 9 WTPs within this block. Three WTPs are less than 0.25ha in size and will not be used in this calculation. The remaining 6 WTPs represents 8.1% of the gross block area. This is 3.1% higher than the landscape target for WTP percent, therefore the objective to meet or exceed the minimum target has been achieved. The Trutch Landscape Unit is currently at 14.5% according to the 2019-2020 SFMP annual report and this higher WTP percentage will help keep our average at or above the target level. In addition to escape cover, the WTP will provide some or all of the following wildlife habitat elements: shrubs, large live trees, broad leaf trees, coarse woody debris, and cavity nesting sites.</p> <p>WTP Timbertypes:</p> <ul style="list-style-type: none"> east plot 54- At(Sw) 631-G east plot 64- At(EpSw) 631-M east plot 42- Sb(PI) 521-P west plot 27- AtSbPIEp(SwAc) 631-P east plot 35- EpSb(Sw) 622-L south plot 58- EpSb(Sw) 622-L north plot 50- At(EpSw) 631-M north plot 84- At(Sw) 631-G east plot 3- PISb(At) 521-M
Visual Quality	This block is not located within a visually sensitive area, therefore no VIA is required

Cultural Heritage	<p>One archaeological site, HkRr-10, is located within the deactivated Canfor road #21-063-04. To protect this feature, road matting starting 5m before the west site boundary and 5m after the east site boundary is to be installed during frozen ground conditions prior to harvesting activities. Road mats are to be removed prior to spring breakup conditions. A total of ~70m of road matting is to be installed. Refer to Heritage North PFR report Permit 2019-358 interim letter report and Section 12.4 Permit for further details. An archaeologist from Heritage North Consulting is to be on site for the installation and removal of road mats.</p> <p>A preliminary field reconnaissance was completed on the entire block area. Sixteen areas of archaeological potential (AOPs) were identified within the harvest area of this block and were flagged with Canfor machine free and yellow no work zone ribbon for avoidance.</p> <p>If harvesting occurs during frozen conditions where the mineral soils will not be disturbed, then the machinery can enter within the machine free zone flagged areas. Mechanical tracks should not be spun inside the AOP; a direct in and out approach would be the best practice. AOP boundaries are to be stubbed in the field. If harvesting occurs in the summer, machinery must stay out of the machine free zone flagged areas. If all of the timber within these boundaries cannot be harvested, then a windfirm hard boundary must be placed around the AOP area. Re-planting of these locations will require further assessment prior to site preparation. These guidelines are consistent with the Archaeology Policy Bulletin 15: Permits and Archaeological Site Boundaries.</p> <p>In the event that previously unidentified archaeological resources are discovered during harvesting, operations in the immediate vicinity will be modified or suspended to the extent necessary to refrain from threatening or damaging the archaeological resource feature. Should an impact assessment be required and changes to this plan are required, then this plan will be amended.</p> <p>Mitigation measures applied to this block in response to concerns around wildlife, caribou, and moose habitat from First Nation's groups have been incorporated into the Site Level Plan. For full details please refer to the First Nation mitigation table filed in the Tenures drive for this cutting permit.</p>
Range	This block overlaps with range tenure RAN076674. A TRAP document is not in place. No block specific comments received from tenure holder through info sharing process of this block.
Coarse Woody Debris	<p>SFMP Target: A minimum of 50% of estimated total amount of pre-harvest CWD levels remains on cutblocks harvested during the SFMP assessment period.</p> <p>Description and Strategy: Existing levels of CWD from natural stand mortality are low to moderate. CWD levels will be maintained through the following:</p> <ul style="list-style-type: none"> i. Broadcast burning will not be used ii. Avoid skidding cull and non-merchantable stems to the roadside, except tops which may be piled and burned at the roadside iii. Avoid large roadside accumulations of non-merchantable CWD iv. All WTP's and retained merchantable and non-merchantable stubs/trees will contribute to future CWD inputs <p>CWD Critter Piles</p> <p>Dispersed Coarse Woody Debris (CWD) piles will be created in this block. Piles will consist of larger diameter CWD that may be placed in loosely layered low-height piles (e.g. 1-3m high) and up to 3m in width to provide additional shelter and foraging opportunities for fur bearers. Suggested locations of piles are identified on the site level plan and logging plan maps. A mix of CWD piece sizes (both in diameter and length) will create a loose, layering effect within the pile, thereby providing access and hiding spaces for some smaller wildlife species. These piles will also create suitable habitat for marten and fisher species. For this block a minimum of 8 piles will be created.</p>
Recreation Resources	N/A
Forest Health	Evidence of Mountain Pine Beetle beetle have been noted within this block.
Terrain Stability	<p>A Terrain Stability Field Assessment was not required for this block.</p> <p>No indicators of slope instability were identified during block development.</p>
Invasive Plants	Invasive plant species were not identified during the time of layout

Timber Retention**Timber Retention**

Description and Strategy: -A 95% reduction was applied on all of the deciduous species within this block. This amounts to approximately 1,402 cubic meters of deciduous species that should remain standing within the block. If the deciduous species is required to be felled due to operational constraints, it will remain on site to contribute to CWD and biodiversity objectives. This reserved timber is to be distributed in patches and single trees

SFMP Target: Annual retention of at least 6 snags and/or live trees per hectare on prescribed areas throughout the Defined Forest Area, compiled and summarized on a Defined Forest Area basis in annual reports.

Description and Strategy: Snags are prescribed on the entire NAR excluding steep slope polygons.

Retain snags and/or live trees >23 cm dbh on prescribed areas. Trees may be stubbed during harvesting operations. Some recommendations for stubbed and residual trees follow:

- i) A variety of small clumps (2-5, or more) as well as single stems are best
- ii) Large stems are preferred, both diameter and height
- iii) Large, dead snags or defective trees should be preferred candidates, followed by live deciduous stems, then live coniferous stems. Aspen and balsam poplar (black cottonwood) are most desirable
- iv) Stub/residual tree distribution is secondary in importance to the recommendations listed above, and will depend in part on original stand composition. However, distribution of snags throughout the prescribed areas should be even wherever practical, (cavity nesting birds are territorial, so dispersion throughout the prescribed areas is beneficial to more birds).

-Additional cover will be retained by leaving patches of 30+ residual trees distributed throughout the block. A minimum of 3 patches will be created and identified at the time of harvesting.

- Harvesting will retain as much standing deciduous as operationally feasible throughout the block (merch area). Trees can be singularly distributed or try to target clumps of up to 3 trees. Trees are not identified in the field. Conifer trees could be targeted in some of the clumps. Try to keep trees at least 50m away from the boundary.

G. Riparian Management:

Riparian ID	Riparian Class	RRZ Width (m)	RRZ Comments	RMZ Width (m)	RMZ Comments
106-B,C,D,E,F,H,J,I,L,M,N,O,P,Q,R,S,T,U,V,X	NCD	0		0	These NCDs are located within the harvest area and the centre-lines are identified with red stream ribbon. During summer operations no machine traffic is permitted within the SMZ without prior approval of the Canfor Supervisor. During winter operations, machine traffic is permitted within the SMZ, but effort needs to be made to retain brush species, advanced regeneration, non-merch conifers, and non-commercial stems.
106-A,G,K,W (NCD)	NCD	0		0	These NCDs are centre-lined with red stream ribbon and outside of the harvest area
106-2 (S6)	S6	0		20	This stream is centre-lined with red stream ribbon and is outside of the harvest area.
106-1,3,4 (S6)	S6	0		20	These streams are located within the harvest area and have been centre-lined with red stream ribbon. Machine Free Zone ribbon has been applied to protect stream banks from machine traffic. Within the MFZ, retain as much brush species, advanced regeneration, non-merchantable conifers, and non-commercial stems as practicable. The remaining RMZ will be managed as per the SU it falls within.
106-1 (W1)	W1	10	This stream has a minimum 10m RRZ established.	40	The portion of the RMZ that falls within the block will have as much understory vegetation, brush species, advanced regeneration, non-merchantable conifers, non-commercial stems, immature, and damaged trees retained as practicable.

H. Other Comments:

Conventional logging is preferred during periods of dry soil conditions with low ground pressure equipment. Alternatively, harvest under periods of frozen soil conditions and/or snowpack.

Site index: SU A Coniferous -15

SU B Coniferous- 18

Trapper: TR0748T006, concerns on access brought forth during review of area with trapline tenure holder. Deactivation plan to be reviewed with trapline tenure holder.

Guide: 701270

Silviculture Management Guidelines:

-Where operationally feasible, and where it exists, harvesting will retain some understory vegetation, brush, non-commercial species, immature, and damaged trees throughout the block

-Where a specific site prep concern for this block has been noted it will be tracked in our database for review with our post-harvest silviculture treatments. BRFN will be contacted to discuss the site prep methods Canfor determines to be the most effective.

- this block overlaps with Prophet River First Nation Enhanced Consultation Zone; no herbicide use is permitted as a brushing treatment for this block

I. Administration:

RPF Name: Kyle Winters, RPF

RPF Number: 5254

Date:

Site Plan Attachments:

Registered Professional Forester Signature and Seal

"I certify that I have reviewed this document and while I did not personally supervise the work described, I have determined that this work has been done to the standards expected of a member of the Association of British Columbia Forest Professionals."

Site Plan Replacement Log:

Replacement #:

Replacement Date:

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