



Canadian Forest Products Ltd.

BLOCK SITE PLAN0

Fort St. John Division

03-May-2021

A. Tenure Identification:

License	Permit	Block
A18154	834	08081

B. Area Summary:

Gross Area (ha)	NAR (ha)	Permanent Access (ha)	WTP (ha)
124.6	109.0	4.8	10.5

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	87.7	Bl 0/Pli 0/Sb 0/Sw 0	-	1000527	Regeneration Layer	1,200	700		1.5	0	15	15	0		
B	21.3	Bl 0/Lt 0/Pli 0/Sb 0/Sw 0	-	1000529	Regeneration Layer	800	400		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 4.2% by total block area.</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>

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, Western Toad 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 6.7, 6.9, 6.22, and 6.36 of the SFMP - Fort St. John Pilot Project, the following guidelines have been implemented:

The key habitat features for the Western Toad include:

- i. Aquatic breeding habitat (including lakes, beaver ponds, stream edges, and shallow, seasonal pools) that is large and deep enough to ensure water does not completely evaporate during metamorphosis
- ii. Terrestrial habitats for summer range and hibernation including forests, clear-cuts, grasslands, alpine meadows, avalanche slopes and wetlands

This block exhibited some of the key habitat features for the Western Toad therefore the following management guidelines shall be applied:

- i. An adequate, variable width buffer was established around a wetland feature in the northeastern portion of the block to protect this feature from harvesting activities.
- ii. Winter logging is preferred to avoid damaging sensitive habitats.
- iii. A minimum of 10 coarse woody debris piles will be retained throughout the harvested area of this block to provide cover.

Migratory Birds: This block overlaps with rank 4 and 5, nest density polygons. Avoid harvesting the rank 4 and 5 polygons during Restricted Period 1 (May 13 - August 3). If the end date of August 3 is not workable, July 20th may be used instead. If both these dates are not practical, harvesting may occur within this period due to the following two Best Management Practices being applied on the rank 4 and 5 polygons:

PL2 - Planned Retention: From the original FOS shape some of the proposed area has been removed from the final block designs or reserved in a WTP. These areas protect riparian features and mature spruce mixedwood areas and also overlap with similarly ranked nest density polygons as the harvest area. These areas will provide suitable habitat for migratory birds.

LO3 - Unplanned/Unmarked Retention: Retain clumps of merchantable deciduous and/or coniferous trees to provide additional retention within the rank 4 and 5 polygons. Retention practices should consist of 30-50 trees/ha, be >23cm dbh, and if possible have some unique features in them (snags, stubs, deciduous trees, areas with spruce understory <5m, wet areas).

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 Tommy Lakes Landscape Unit.</p> <p>SFMP Target: The target Cumulative Wildlife Tree Patch (WTP) % for this landscape unit is 8%. Actual results will be summarized in annual reports.</p> <p>Description and Strategy: There are 3 WTPs within this block representing 8.4% of the gross block area. This is 0.4% higher than the landscape target for WTP percent, therefore the objective to meet or exceed the minimum target has been achieved. The Tommy Lakes Landscape Unit is currently at 10.1% 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: WTP in the central North = SbS 831-M WTP in the Northeast corner = Sb(S) 851-P WTP in the Southeast corner = SAt 422-G</p>
Visual Quality	This area has not been identified as visually sensitive. VQO's have not been set.

Cultural Heritage	<p>A preliminary field reconnaissance was completed on the roads only in this block. Two areas of archaeological potential (AOPs) have been identified near the 08-081-00 and 08-081-02 roads in this block. They have been protected by machine free zone (MFZ) ribbon. Road centerline ribbon has been moved to avoid these AOP areas and road construction must not encroach on these areas. If roads are moved outside of the tested area and encroach on the risk ranked polygon areas of potential identified on the archaeological overview assessment map found in the block folder, or the entire block is to be harvested in the summer months, further archaeological assessment is required.</p> <p>If harvesting occurs during frozen conditions where the mineral soils will not be disturbed, then the machinery can enter within the MFZ 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.</p> <p>If harvesting occurs in the summer, machinery must stay out of the MFZ 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.</p> <p>Re-planting of these locations will require further assessment prior to site preparation.</p> <p>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>The following mitigation measures will be applied to this block in response to concerns around wildlife, caribou, and moose habitat from First Nation's groups. For full details please refer to the FN mitigation table filed in the Tenures drive for this CP:</p> <p>-A 20m non-brushing and herbicide free zone will be prescribed along the 08-050-00 road, so that brush will help provide a visual screen into the block (see highlighted roads on deactivation map).</p> <p>-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. Debris could include road strippings from when the road was constructed and harvesting log debris from the waste piles. If road access is blocked off prior to planting, try to create a small trail around the blockage for tree planter access. This trail is to be deactivated once planting is completed in the area (see highlighted roads on deactivation map).</p> <p>-During harvesting, Canfor will try and protect as much brush as possible along the 08-050-00 road (see highlighted roads on deactivation map).</p> <p>-Additional cover will be retained by leaving patches of 30+ residual trees distributed throughout the block. A minimum of 5 patches will be created and identified at the time of harvesting. These trees could count towards Migratory Bird practices and Timber Retention if the requirements are met.</p> <p>-Harvesting will retain as much standing deciduous as operationally feasible throughout the block (merch area) to meet deciduous retention targets. 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. Trees could count towards Timber Retention practices if the requirements are met.</p>
Range	There is no range use in the area.
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
Recreation Resources	N/A
Forest Health	Evidence of Mountain Pine Beetle was noted in 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**

Description and Strategy: A 90% reduction was applied on all of the deciduous species within this block. This amounts to approximately 6013 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 and could count towards Migratory Bird practices and Cultural Heritage concerns if the requirements are met.

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. Trees could count towards Migratory Bird practices and Cultural Heritage concerns if the requirements are met.

Description and Strategy: Snags are prescribed on the entire NAR.

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) In areas planned for coniferous reforestation, avoid leaving standing residual trees in areas other than riparian management zones
- v) 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 benefits more birds)

G. Riparian Management:

Riparian ID	Riparian Class	RRZ Width (m)	RRZ Comments	RMZ Width (m)	RMZ Comments
050-DZ,EZ, FZ; 081-A,B,D	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.
045-J,M,PP, Q,R; 050-CZ	NCD	0		0	These NCDs are centre-lined with red stream ribbon and outside of the harvest area.
081-1, 20; 050- 2Z, 3Z, 045-E1A	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.

H. Other Comments:

