

# WILLIAMS LAKE COMMUNITY FOREST TREATMENT PLAN PINE SPACING

## LOCATION/TENURE

|                    |            |  |               |
|--------------------|------------|--|---------------|
| Licensee/Proponent | Project #  | Location                                   | Mark          |
| N/A                | N/A        | Solomon West Rd<br>Potato Mtn/Peskwenwinem | N/A           |
| Block (s)          | Mapsheet # | District                                   | TSA           |
| FFT-12             | 93A031     | DCC  | Williams Lake |

| Treatment Unit | NAR (ha) | Space (ha) | NP-UNN (ha) | WTP (ha) | Imm (ha) | Other (ha) | Gross (ha) | Mapsheet/Opening# |
|----------------|----------|------------|-------------|----------|----------|------------|------------|-------------------|
| 1              | 39.7     | 35.0       | 0.6         | 0.0      | 0.0      | 0.0        | 40.3       | 93A031            |

This block is managed as a single unit unless sub-units are required to be established for incremental programs.

## ACCESS TO TREATMENT AREA

Access to the site is via the Likely Road, turn right on the Swanson FSR, right at 2.8km onto the Solomon West, right at 4.2km on the Solomon West, turn left 0.5km onto the block road and it's 0.4km to the boundary edge/junction in the road that accesses both the East and West section of the block.

## ASSESSMENTS

**Visual Impact:** N/A

**Riparian:** Treatment areas will not impact the RMZ of the two W1's and the L1 located below the Southern block edge.

**Terrain Stability:** N/A. No evidence of slope instability was noted during field work, and no slopes >60% are located within the block.

**Pest Incidence:** Yes, see Silviculture Section.

**OGMA/WTP:** Yes, there are no overlaps with any OGMA or WTP's.

**Other:** This block is located outside of the Mule Deer Winter Range.

**Archaeological Impact:** An AOA was completed. Treatments are to be completed with hand crews only and no ground disturbance will occur outside of existing roads. Adequate information sharing with affected First Nations has taken place. No impacts to archaeological resources are anticipated from this spacing treatment.

**Field Assessments:**

**BEC:** SBSdw1 04

**Soil Hazards:** No, not applicable as no heavy equipment will be utilized for treatment.

**Slope Instability:** No, no evidence of slope instability was noted during field work, and no slopes >60% are located within the block.

**Soil Characteristics:** L

## CRITICAL SITE CONDITIONS AFFECTING TIMING OF OPERATIONS

**Season:** N/A, Treatment can occur during any season, as long as snow depths allow production and stump height requirements to be met.

**Wildlife:** None identified.

**Other:** N/A

**RIPARIAN MANAGEMENT AREAS-** No identified riparian features were seen during recce/survey or layout. A RMZ and LMZ are present to the South; however, these edges border the block boundary.

## RESERVE ZONES (Riparian Management Zone – RMZ)

| Blk | ID # | Class | Lake Class | Width RRZ (m) | Width RMZ (m) | Purpose and extent of removal or modification of trees and any related forest practices |
|-----|------|-------|------------|---------------|---------------|---|
|     |      |       |            |               |               |   |

## ROAD CONSTRUCTION, MAINTENANCE AND DEACTIVATION

### ROAD CONSIDERATIONS

Is consent required to connect a road to an FSR (FRPA 23): **No**

Timing of activities to protect fish Habitat or other resource features: **N/A**

**Trails:** **Old logging roads and quad trails are located in the opening. No debris should remain on trails after treatment.**

**Fence crossings:** **N/A**

**Maintenance:** **None**

**Access restrictions:** **None**

**Deactivation:** **None**

**Rehabilitation:** **Not required**

**Grass seeding:** **Not required**

If road is in RMA there will be no maintenance beyond clearing width except at stream

**N/A No Roads in RMAs.**

|   |
|---|
| crossings<br>No gravel or fill removal with an RMA except as per FPPR Sec 50(3) |
| Other:  |
| Invasive plants Present: None noted.  |
| <b>PRACTICE REQUIREMENTS</b>  |
| Roads will be maintained in accordance with FPPR Sec 79, until deactivated.     |

**SILVICULTURE**

| ECOLOGY   |    |             |                     |                    |                |                 |          |                       |            |  |      |                         |                               |
|---|----|-------------|---------------------|--------------------|----------------|-----------------|----------|-----------------------|------------|--|------|-------------------------|-------------------------------|
| Blk   | SU | Timber Type | BEC Subzone/Variant | Assoc. Site Series | Eda-topic Grid | Elev. Range (m) | Aspect   | Slope (%) Range & Avg | Slope Pos. | Soil Texture Depth to Restricting Layer (cm) | % CF | Humus Form & Depth (cm) | Rooting Depth (cm) & Drainage |
| <b>FFT-12</b>   | 1  | Pl112       | SBSdw1              | 04                 | 3A             | 1139-1164       | STRAIGHT | 0-20 Avg. 6           | Mid        | L >90cm                                      | 5    | Mor 3                   | 45 well                       |
| <b>Comments:</b><br><b>BEC:</b> The block is located within the SBSdw1 BEC zone.<br><b>Stand:</b> The current stand structure is an even aged pine stand with a small component of spruce and subalpine-fir with very minor aspen. The block appears to have been logged in 2006, based on the historical labels. This block was clearcut and has since experienced dense pine regen.<br><b>Soil:</b> L. Based on ground vegetation and old road cuts it appears that soils remain consistent throughout. Small pockets of higher coarse fragments were noted. (Soil texture was based on existing road cuts and shovel tests during survey). |    |             |                     |                    |                |                 |          |                       |            |  |      |                         |                               |

| STOCKING STANDARDS  |       |              |             |              |                    |           |                 |                            |               |                    |
|---|-------|--------------|-------------|--------------|--------------------|-----------|-----------------|----------------------------|---------------|--------------------|
| SU  | SSID  | Layer        | Species     |              | Stocking           |           |                 | Intertree min distance (m) | Regen Delay   |                    |
|   |       |              | Preferred   | Acceptable   | Target pa          | Min pa    | Min p           |                            |               |                    |
| 1   |       | All          | Pli, Fdi,Sx | N/A          | 1200               | 700       | 700             | 0.5                        | 7             |                    |
| SU  | Layer | Free Growing |             |              | Min ht. Pli/Fdi/Sx | Max (sph) | Maximum Density |                            | Crop Vs Comp% | Min Pruning Height |
|   |       | Early        | Late        | Post Spacing |                    |           | Min             | Max                        |               |                    |
| 1   | All   | N/A          | N/A         | 2.0/1.4/1.0  | N/A                | 2500      | 3500            | 150                        | N/A           |                    |
| <b>Comments:</b><br>Post spacing minimums are only required to be met if density was present prior to treatment.<br>For assessing stand tending quality a range of 2500-3500SPH will be utilized as acceptable. |       |              |             |              |                    |           |                 |                            |               |                    |
| *Stocking Standards as per WLCF FSP<br>Cariboo Regional Stocking Standard SSID#1060537  |       |              |             |              |                    |           |                 |                            |               |                    |

| PEST SPECIES PRESENT   |   |      |             |   |          |
|--|---|------|-------------|---|----------|
| Block/SU   | Layer   | Code | Name        | % | Comments |
| FFT-12/1   | 3   | AH   | Hare Damage | 1 |          |
| <b>MANAGEMENT STRATEGIES TO REDUCE FOREST HEALTH RISKS</b><br><b>DSG:</b> Pine stems with stem galls or galls within 5cm of the bole are to be removed.<br><b>NY/NW/AH:</b> Cut all stems that are damaged as per the prescription. Target densities on site are prescribed to be higher than standard to reduce exposure to snowpress. Rabbit damage is likely to be reduced to standing stems with increased feed. |   |      |             |   |          |
| TREATMENT PLAN   |   |      |             |   |          |
| <b>Objectives</b>  | The purpose of this treatment is to increase the net productivity of previously regenerated pine stems. Current densities and high crown closure have resulted in poor ht:Dia ratios and low % live crown. The larger and more dominant stems will be retained.   |      |             |   |          |
| <b>Description</b>   | This stand is an even-aged pine stand with consistently high density conifers. Current crown closure levels are often greater than 30% which has resulted in poor form and reduced understorey vegetation.  |      |             |   |          |
| <b>Residual Stand Target</b>   | <ul style="list-style-type: none"> <li>The residual stand target will be an even-aged pine stand with variable densities.</li> <li>Treatment will be targeted on stems &lt;12.5cm DBH.</li> <li>Emphasis will be on retaining the largest stems with the best form and vigour. By reducing MITD to 0.5m, an attempt will be made to retain nearly all larger and dominant stems. Fdi, Sx and aspen will be reserved. Aspen will be retained, as cutting would encourage suckers, and aspen is nearly non-existent.</li> <li>TITD is being prescribed to meet prescribed post-treatment density, MITD will allow largest stems to be retained.</li> <li>L1 stems will not be cut, and there will be no MITD for them.</li> </ul> |      |             |   |          |

**TREATMENT SPECIFICATIONS**

**THE SUCCESS OF THE TREATMENT IS PREDICATED ON THE RETENTION OF THE TREES WITH THE BEST FORM AND VIGOUR.**

Target spacing is based on the desired residual PLI density of ~2500-3500SPH. Inter-tree distances will vary, and utilizing MITD will allow for the selection of crop trees with the best form (typically size) and vigour.

Crown form characteristics have been selected to ensure that the trees with the best vigour are retained.

There will be no visual buffer along the sides of road in the treatment unit.

The treatment unit has been ribboned in Orange "Block Boundary".

**L2, L3 AND L4**  
(<12.5cm DBH)

**Crop Tree Selection Guide:**

**Spacing**

1. Stems growing within the dripline of L1 stems will be removed. Adjust spacing around L1's accordingly to meet desired target density.
2. After #1 is met, the presence of L1 will have no effect on the spacing of remaining stems ('ghost' L1 stems).
3. Average spacing between crop trees is 1.8m.
4. Maximum spacing between crop trees is 4.0m.
5. High quality crop trees (L2) can be retained to a minimum spacing of 0.5m from each other.
6. High quality crop trees (L3) can be retained to MITD of 1.0m.
7. All crop trees (L3 and L4) can be retained to a MITD of 1.0m when located on the edge of a void.
8. Aspen does not affect TITD or MITD, "ghost" aspen.

**Species**

1. Douglas-fir and spruce will be given priority.
2. If no suitable Douglas-fir or spruce, then Pli will be given priority.
3. Retain all aspen.

**Size**

1. Retain largest diameter stems with acceptable characteristics.
2. Retain L2 over L3.
3. Retain L3 over L4.

**Acceptable Characteristics:**

**Crown Form**

1. Live Crown >30%.
2. Crown shape should be a pointed cone.
3. Evidence of leader growth (10-30cm preferred) (Avoid round top or flat top trees to keep).
4. No dead tops.
5. Few dead branches.
6. Relatively dense foliage compared to adjacent stems.
7. Dark green needles as opposed to light or yellowing needles.

**Stem Form (bole)**

1. Straight.
2. No forks.
3. No broken stems.
4. No large scars.

Select the best available stems to leave in voids. Do not simply cut all trees adjacent to or in voids, as a poor tree in these areas is better than no tree.

**Notes:**

Stand is young and primarily L3 stems with very little L1 or L2 stems present.

Aspen is non-deleterious and does not require treatment in this stand.

All cut stems must be located on the ground wherever possible. Where high accumulations of slash are created, bucking of slash to reduced slash height to <100cm may be required.

Stump heights are not to exceed 30cm.

Stump angle not to exceed 30°.



R.P.F.'s Signature and Date

**RPF General Comments:**

I certify that I have reviewed this document and although I did not personally supervise the field assessments described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.

The MITD has been reduced to 0.5m to give selection to well-formed trees that will obviously grow well over the next 30 years.

|                           |                      |                  |
|---------------------------|----------------------|------------------|
| Field Assessment Done by: | Tavis Stromsten, TFT | Date: April 2020 |
| Form Completed by:        | Tavis Stromsten, TFT | Date: April 2020 |