



Western Forest Products Inc.
DEFINING A HIGHER STANDARD™

HARVEST INSTRUCTIONS MAP

BLOCK: **H106HL**

OPERATION: **Nootka**

TENURE: **TFL19**

CUTTING PERMIT: **386**

MAP DATE: **02/01/2019**

PRODUCED BY: **Wes Cutting**



1:5,000

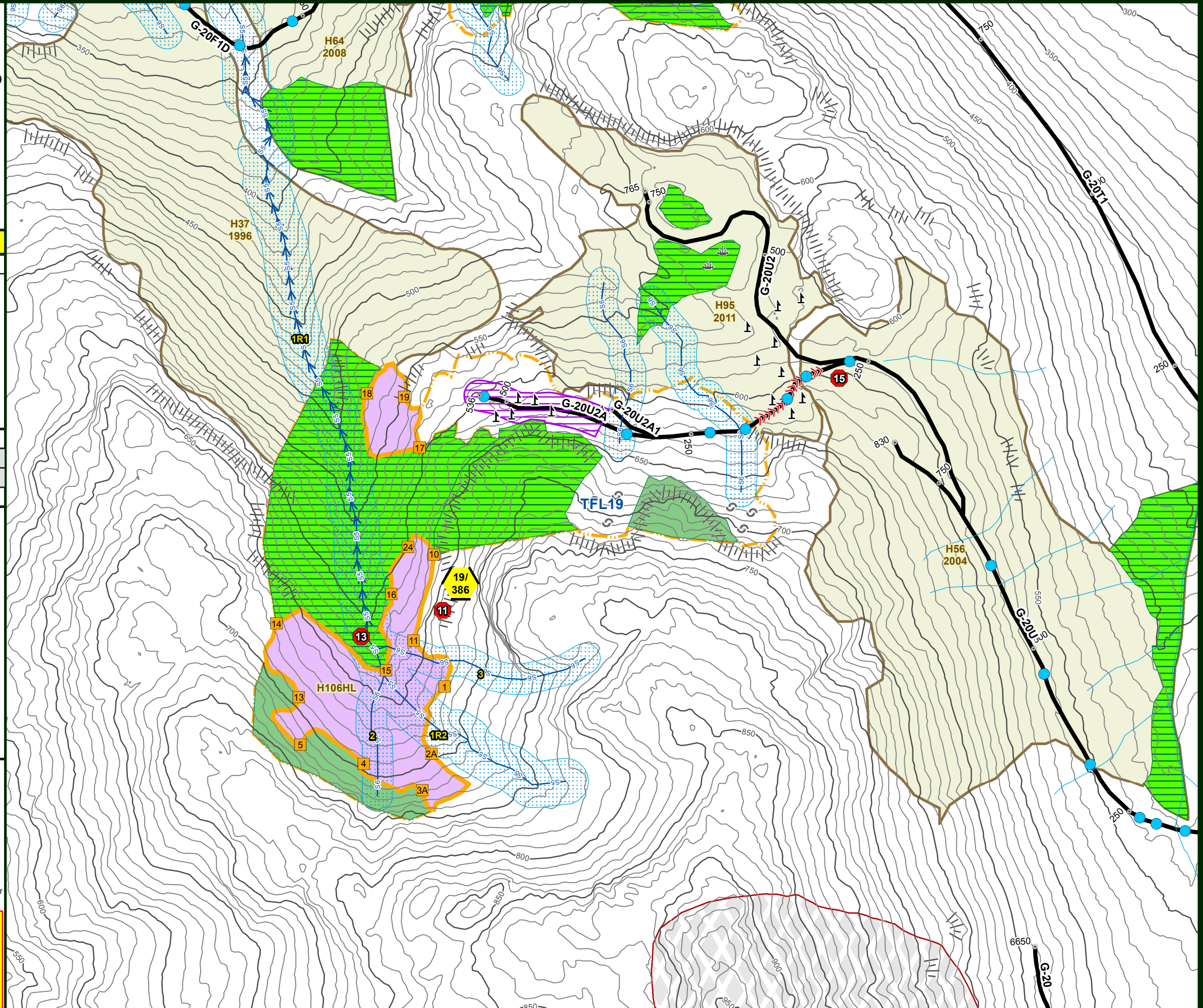
SAFETY COORDINATES: LAT: 49 42 46 / LONG: 126 26 13

Harvest Systems	Area	Volume m ³	Timbermark	Area	Volume m ³
HELI	4.6	2959	19/386	4.6	2959

Species %								Net Harvest Area		
Cw	Cy	Fd	Hw	Ba	Ss	Other	Decid	Retention Areas	4.6	2959
15	15	19	37	14	0	0	0	Non Merch Areas		
OG %: 100 SG %: 0 Vol/Ha: 643.3								Gross Area	11.9	2959

Base Features				10m Index Contour		Rec Feature Poly Gov	
	Permanent Sample Plots			10m Intermediate Contour			Parks & Protected Areas
	Research Plots			Research Polygons			
	Falls	Natural Features		Helicopter Features			
	Beaver Dam / Debris Jam		Karst Feature		Ground Access		
	Reach Break		Landslide Initiation Point		Hover Access		
	Non Fish Stream / ID		Rock		Pad		
	Fish/Community Watershed Stream / ID		Snags		Heli Land Drop Zone		
	Unclassified Stream		Wet Ground		Heli Water Drop Zone		
	Non-Classified Drainage		Windthrow		Log Handling		
	Fish Sensitive Feature		Rock Bluff		Service Landing		
	Stream Gully		Sensitive Soils		Heli Flight Line		
	Riparian Mgt. Area		Rock	Wildlife Features			
	Riparian Res. Zone		Sensitive Terrain		Den Tree		Nest Tree
	Lake / Ocean		Avalanches		Other		Plant
	Wetland / Swamp / Marsh	Recreation Features			Ungulate Winter Range		
	Building Footprint		Recreation Trails		Wildlife Habitat Area		
	Tenure Boundaries		GAR Order Rec Line		Old Growth Mgt. Area		
			GAR Order Rec Poly				

Block Features		Landing		Road Constructed	
 Falling Corner	 Backspar/Tailhold	 Road Deactivated			
 Falling Boundary	 Temp Creek Crossing	 Road Located			
 Crown Modification	 Special Mgt. Instruction	 Road Unknown			
 Planned Block	 See Back of Map	 Road Old Grade/Overgrown			
 Harvest Complete (Gross)	 Harv Instruct Line	 Highway			
 Harvest Complete (Prod)	 See Back of Map	 Street			
Non Merch Types		 No Decking	 Railway		
 Wildlife Tree Retention	 Machine Trail	 Steep Grades			
 Retention	 Harvest Instruct Poly	Cultural Features			
 Partial Retention	 See Back of Map	 Cultural Cedar (LCC)	 CMT		
 Non-Productive	Road Features		 Other		
 Other	 CMP Planned	 Archaeology Site Gov			
 Yarding Corridor	 WBC Planned	Safety Features			
Harvesting Features		 CMP Existing	 Hydro Structure		
 Pole Removal	 WBC Existing	 Hazard Identification - See Back of Map for Specifics			
 Single Tree Removal	 CMP/WBC Removed	 Hydro Line			
 Single Tree Retention	 Bridge Planned	 Safety Trail			
 Big Tree Retention	 Bridge Existing	 Hazard Line			
 Deflection Lines	 Bridge Removed	 Hazard Area			



SEE INSTRUCTIONS ON REVERSE

HARVEST INSTRUCTIONS MAP

BLOCK: H106HL

"DEFINING A HIGHER STANDARD"



All employees, supervisors and contractors associated with these Harvest Instructions shall be fully advised of their content requirements and be aware and knowledgeable of WFP's Environmental Management Systems (EMS) and appropriate Standard Operating Procedures (SOPs).

SAFETY	ENVIRONMENTAL	GENERAL INSTRUCTIONS	BLOCK SPECIFIC INSTRUCTIONS																																																																																																											
<p>Hazard Identification: Refer to Workplace Safety Plan - Known Hazards & Controls section for description of hazards and controls in place. Any new identified permanent hazards must be reported back to WFP Planning Dept. using a Hazard Report Form.</p> <p>Identified hazards highlighted below, See map for locations.</p> <table><tr><td>1</td><td>Avalanche Zone</td></tr><tr><td>2</td><td>Blasting Zone</td></tr><tr><td>3</td><td>Communication Issues</td></tr><tr><td>4</td><td>Metal Debris/Cable</td></tr><tr><td>5</td><td>Danger Tree(s) / Snags</td></tr><tr><td>6</td><td>Karst / Cave</td></tr><tr><td>7</td><td>No Entry Zones</td></tr><tr><td>8</td><td>Powerlines</td></tr><tr><td>9</td><td>Loose Boulders</td></tr><tr><td>10</td><td>Rock bluffs</td></tr><tr><td>11</td><td>Rock Fall Hazard</td></tr><tr><td>12</td><td>Safe Work Zone ID'd</td></tr><tr><td>13</td><td>Sensitive Terrain</td></tr><tr><td>14</td><td>Sink Holes</td></tr><tr><td>15</td><td>Steep Grade</td></tr><tr><td>16</td><td>Steep Terrain</td></tr><tr><td>17</td><td>Windfall Areas</td></tr><tr><td>18</td><td>Other:</td></tr><tr><td>19</td><td>Overhead Hazard</td></tr><tr><td>20</td><td>Wildlife</td></tr><tr><td>21</td><td>High public use / recreation</td></tr><tr><td>22</td><td>Stream Hazard</td></tr></table> <p>11. Rock fall hazard: Workers should be made aware of this hazard and plan work accordingly.</p> <p>13. Sensitive terrain: Located outside the block. Workers should be made aware of this and should avoid disturbing this area.</p> <p>15. Steep Grades: Refer to Safety map and Steep Grade Management Plan.</p> <p>Signage: Post signage warning of operational activities and restricted access when necessary.</p> <p>Steep Grades: Br G-20U2 contains small sections of 20%. No sustained steep grades. Br G-20U2A: Grades from 18% → 25% exist between road stations 0+050 and 0+160.</p> <p>Before hauling commences on any road section >18%, a steep grade assessment must be conducted by a qualified supervisor. Monitor conditions continually and adjust hauling activities to suit the traction conditions (See Safety Map for Haul Restriction Sections and Refer to Attached Steep Grade Assessment for hauling limitations). In the event any additional in block hazards (temporary or permanent) are encountered/developed during harvest phases must be reported back to WFP Planning Dept.</p>	1	Avalanche Zone	2	Blasting Zone	3	Communication Issues	4	Metal Debris/Cable	5	Danger Tree(s) / Snags	6	Karst / Cave	7	No Entry Zones	8	Powerlines	9	Loose Boulders	10	Rock bluffs	11	Rock Fall Hazard	12	Safe Work Zone ID'd	13	Sensitive Terrain	14	Sink Holes	15	Steep Grade	16	Steep Terrain	17	Windfall Areas	18	Other:	19	Overhead Hazard	20	Wildlife	21	High public use / recreation	22	Stream Hazard	<p>Rainfall Shutdown Area/Station: Nesook</p> <p>Shutdown Criteria Wet/Very Wet Zone: Activities must shut down if: The total rainfall reaches 100mm in 24 hours or less, 75mm of rain has fallen since the start of the shift and rain is continuing, or the water balance is equal to or greater than 100mm, whichever occurs first.</p> <p>Start-up Criteria Wet/Very Wet Zone: Activities may start-up when: The total rainfall is equal to or less than 50mm in 48 hours, or the water balance falls below 100mm. Soil drainage rate is 50mm in 24 hours.</p> <p>Riparian: PRIMARY OBJECTIVE: TO PROTECT WATER QUALITY - MAINTAIN STREAM BANKS AND THEIR NATURAL WATERCOURSE</p> <p>High stump non merchantable and saplings along in-block streams to provide visual reference for subsequent yarding phases. A 5 meter machine-free zone will be maintained except at designated crossings, or as required for other prescribed activity such as creek cleaning. Crossings on map are approximate and indicate that machine crossing of creek is permitted. Construct temporary crossings on streams using puncheon to protect stream banks and channel where necessary. All puncheon introduced at crossings on backspars trails shall be removed once trail is no longer required Logs will not be decked in stream channels unless bridge logs suspend the channel and support the decked logs and flow is maintained at all times. Any introduced material at crossings will be removed immediately after loading. Equipment should not be fueled or serviced within the riparian management area (RMA) of a stream, lake or wetland.</p> <table><thead><tr><th>Class</th><th>Width</th><th>RRZ (m)</th><th>RMZ (m)</th><th>RMA (m)</th></tr></thead><tbody><tr><td>S1</td><td>>20</td><td>50</td><td>20</td><td>70</td></tr><tr><td>S2</td><td>>5 ≤20</td><td>30</td><td>20</td><td>50</td></tr><tr><td>S3</td><td>1.5 ≤5</td><td>20</td><td>20</td><td>40</td></tr><tr><td>S4</td><td>< 1.5</td><td>0</td><td>30</td><td>30</td></tr><tr><td>S5</td><td>>3</td><td>0</td><td>30</td><td>30</td></tr><tr><td>S6</td><td>≤3</td><td>0</td><td>20</td><td>20</td></tr></tbody></table> <p>*Fish/Community Watershed Stream</p> <table><thead><tr><th colspan="4">STREAM PRESCRIPTIONS</th></tr><tr><th>Stream ID</th><th>Stream Class</th><th>GULLY</th><th>Riparian Management Strategies.</th></tr></thead><tbody><tr><td>1R1</td><td>S5</td><td>Y</td><td>Outside Block</td></tr><tr><td>1R2</td><td>S5</td><td>N</td><td>Inside Block. Fall and Yard away where possible. Bridge if Necessary. No limbing or bucking in stream. Assess for cleaning post-harvest.</td></tr><tr><td>2,3</td><td>S6</td><td>N</td><td>Inside Block. Fall and Yard Across</td></tr></tbody></table> <p>Debris Size: Fine = twigs, needles, leaves; V. Small = < 3"x6"; Small = < 12"x6", Large = > 12"x6".</p>	Class	Width	RRZ (m)	RMZ (m)	RMA (m)	S1	>20	50	20	70	S2	>5 ≤20	30	20	50	S3	1.5 ≤5	20	20	40	S4	< 1.5	0	30	30	S5	>3	0	30	30	S6	≤3	0	20	20	STREAM PRESCRIPTIONS				Stream ID	Stream Class	GULLY	Riparian Management Strategies.	1R1	S5	Y	Outside Block	1R2	S5	N	Inside Block. Fall and Yard away where possible. Bridge if Necessary. No limbing or bucking in stream. Assess for cleaning post-harvest.	2,3	S6	N	Inside Block. Fall and Yard Across	<p>Ground Based Operations: Ensure sufficient brush matting and puncheon is utilized in order to minimize soil disturbances. If excessive soil disturbance occurs, cease operations until soil moisture conditions improve or move to an area where drier conditions exist.</p> <p>Backspar Tree/Tailholds/Guyline Stumps: Cutting Permit special conditions allow for the following: May fall trees outside of block if person conducting tree felling or rigging of tail hold/anchor trees determines that the tree represents a safety hazard according to the Worksafe BC Standards.</p> <p>Cultural Resources: No CMT's or cultural resources identified within or adjacent to block. If an unidentified cultural heritage resource is encountered, operations will cease in the immediate vicinity of the feature and WFP Planning shall be notified immediately.</p> <p>Wildlife Resources: In the event any unidentified bear dens or raptor nest trees are encountered during falling, but before the tree has been cut, the faller will go elsewhere for the day and report this potential wildlife tree to a WFP Supervisor. Fallers are not to return to the vicinity of the wildlife tree until notification from WFP Planning has been given. If the discovery of a bear den or potential nest tree occurs while the tree is being felled, the decision to proceed is at the faller's discretion in regards to safety and Worksafe BC requirements. If it is unsafe to leave the tree partially cut, the faller will complete falling the tree and report the incident to WFP Planning.</p> <p>Retention: Internal retention not specified on the map requires review with WFP Planning prior to implementing and necessitates a 'change in plan'. Individual trees along boundary edges may be left standing due to safety or operability issues and do not require documentation unless they pose hazard to subsequent phases. Groups of trees left along boundary edges for safety and/or operability issues need to be reported to WFP Planning.</p> <p>Timbermarking Requirements: All decked timber must be sufficiently marked (at least 10%) when the setting is in-active. Right-of-way timber will be marked 19/0R1 Setting timber to be marked to the block cutting permit.</p> <p>Professional Seal and Signature:</p> <div><p>January 2, 2019 I certify that I have reviewed this document, and I 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 BC Forest Professionals.</p></div>	<p>Risk Category: LOW</p> <p>Power Lines: Maximum Allowable Load Heights</p> <table><thead><tr><th>Road Name</th><th>Allowable Load Height</th></tr></thead><tbody><tr><td></td><td></td></tr></tbody></table> <p>Special Management Instruction:</p> <p>Harvest Instruct Poly:</p> <p>Terrain: The block has a low landslide initiation risk.</p> <p>Recreation: There are no known recreation sites in or adjacent to the block.</p> <p>Invasive Plants: There are no known invasive plants in or adjacent to the harvest area.</p> <p>Big Tree: Any Big Trees discovered during falling are to be left standing. If Big Tree(s) poses a safety risk and cannot be left, stop work and notify WFP Planning and go work elsewhere for the day. Direction will be given from WFP Planning in regards on how to proceed.</p> <p>Leave Trees: There are no individual leave trees associated with this block.</p> <p>Visuals: Block is acceptable from a visual perspective.</p> <p>WTRA, Retention, OGMA: Block boundary is adjacent to WTRA, Retention Areas, and/or OGMA in several locations. Danger trees fell from within this areas are to remain in place where operationally feasible. Tail holds and guyline tiebacks may be established in these areas.</p> <p>Haul Distances</p> <table><thead><tr><th colspan="2">Haul Distances</th></tr></thead><tbody><tr><td>Nesook</td><td>11km</td></tr></tbody></table> <p>Field Work Completed By: West Coast Timber Consultants Checked By: Wesley Cutting</p> <p>Signoff:</p> <p>Date:</p> <p>Date:</p>	Road Name	Allowable Load Height			Haul Distances		Nesook	11km
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