

IF ANYTHING IS UNCLEAR WITH THE PLAN, CONTACT TAAN SUPERVISOR



HARVEST INSTRUCTION MAP

	Harvest Area Summary (ha)					Totals
	Ground Based	Grapple	Proposed R/W (Cutting Permit)	Proposed R/W (Road Permit)	Other	
Existing R/W						
Sub Total	35.0			7.6		42.6
Proposed R/W (External to Falling Bdy)						0.4
Total						43.0

NOTE: This table does not include any area(ha) calculation for WTRA, Retention, LUO Reserves or LUO Management Zones

For streams without specific prescriptions on the back of this map, fall and yard away where possible (falling and yarding across is acceptable if necessary) bridge leaners where necessary. Lift clear during yarding and maintain stream channel integrity, no cleaning required.

Harvest Volume Summary		
Species	Percent (%)	Volume (m ³)
H	29	6714
P	21	4827
C	50	11967
Total	100	23508
Harvest System		
Harvest System	Hectares	Volume (m ³)
Ground Based	35.0	19314
Grapple		0
Other		0
Proposed R/W	7.6	4194
Sub Total	42.6	23508
Proposed R/W (external to Falling Bdy)	0.4	221
Total	43.0	23729

Tree Crown Modification
Length: 325m
Width: 20m

Pacific Crab Apple SMZ (Special Management Zone) - retain Pacific Crab Apple where possible, if felled within R/W then leave roadside and do not put into brush piles.

Legend

Boundaries

- Falling Corner
- Falling Boundary
- Adjacent Proposed Block
- Tenure Boundary
- TAUP/Development Area

Harvest Method / Features

- Stream Crossing
- Hoe / Backspar Trail
- Ground Based
- Grapple
- Helicopter
- Other
- Proposed R/W (CP/RP)
- Existing R/W

Management Features

- Tree Crown Modification
- Machine Free Zone
- Special Management Zone

Riparian Features

- Type 1 Stream
- Type 2 Stream
- Upland Stream
- Non-Classified Drainage
- Unknown
- Fish Sensitive Feature
- Wet Ground/Swamp
- Reach Break

Lakes / Wetlands

- Forested Swamp
- Type 1 Habitat (Lake/Wetland)
- Type 2 Habitat (Lake/Wetland)
- Non-Fish (Lake/Wetland)
- Unverified Lake/Wetland/Swamp

Road Features

- Culvert (Existing / Proposed)
- Wood (Existing / Proposed)
- Replace or Repair (Culvert / Wood)
- Bridge (Existing / Proposed)
- Waterbar / X-ditch

Road Construction

- Quarry

Contours (5m interval)

- Index Contour and Label
- Intermediate Contour

Roads

- Road Station (Hub)
- Engineered Road
- Existing Road
- Recce Road
- Adjacent Engineered Road
- FSR Road
- Old Grade
- Old Skid Trail
- De-activated Road

LUO Features

- Pacific Crab Apple (Single)
- Pacific Crab Apple (Group)
- Yew (Single)
- Yew (Group)
- Fairy-slipper
- Black hawthorn
- Northern riceroot
- Devil's club
- Highbush-cranberry
- Monumental Cedar(>120cm DBH)
- Monumental Cedar(<120cm DBH)
- CMT, Culturally Modified Tree
- Other, Bear Den

Reserves

- Includes all WTRA & LUO Reserves. For a further break-down of areas please see the SP Map.

Other Features

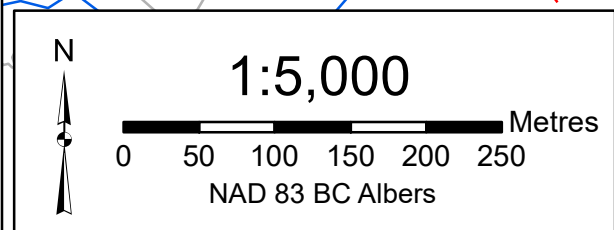
- Permanent Sample Plot
- Dangerous Tree
- Windthrow
- Rock
- Rock Bluff
- Slide
- Gully
- Heli Pad
- Heli Service Landing
- Gate
- Adjacent Retention
- Adjacent WTRA
- Greened Up Block
- Non-Greened Up Block
- Growth & Yield Plot Buffer

Other Constraints

- Park / Protected Area

N1G 028
(Block)

N1G 0R1
(RW)



Geographic Centre:
(Block Centre)
53° 34' 04"N Lat. / 132° 03' 01"W Long.

LOW001
FNWL N1G CP 028
Mapsheet: 103F.060
Map Updated: December 13, 2021
Map By: J. Fraser

In addition to these site specific instructions, all operations must be carried out in accordance with the Contract and Taan's CMS.

HARVESTING STRATEGIES AND CONSTRAINTS

If anything is unclear in this plan, contact Taan's Manager or Supervisor

Ground Based:

Soils are very susceptible to compaction particularly when saturated. The use of ground based equipment will be **limited to drier soil conditions and/or using puncheon**. Puncheon will be dispersed following the completion of harvest activities to facilitate planting.

- Maximum allowable soil disturbance = 5%
- Maximum road side soil disturbance = 25% to allow for decking/loading logs.
- Utilize sufficient puncheon during ground based operations
- Harvesting operations will cease immediately should compaction or rutting occur
- Rehabilitate compacted soils and rutted areas once soils are sufficiently drained to allow for the return of machinery
- Avoid ground based systems immediately after heavy rainfall events or when wet soil conditions exist

Falling:

- Hemlock more than 3m in height is to be cut down to reduce the spread of mistletoe where hemlock is a preferred species unless otherwise directed in these instructions.
- Fall and buck according to current Taan bucking and utilization standards.

Deactivation:

Upon completion of harvesting, ensure the ditches, culverts and road ways are clear of debris and are managing water well. Re-establish sumps at culverts. LOW001-1, LOW001-2, LOW001-3, LOW001-4, LOW001-5, LOW001-5A and LOW001-5B will be permanently deactivated. Remove all culverts, clean ditches and maintain drainage patterns (Cross ditches and water bars (herring bones) to keep water off road. Maintain quad access for planting and future surveys.

Invasive Plants, Sedimentation and Erosion Control:

- Wash equipment before moving from an area of known invasive plants before moving into a new area.
- Invasive plant parts removed from machinery should be burned. Where burning is not possible dispose of in landfill area.
- Any invasive plant found must be brought to the attention of Taan Forest.
- Seed contiguous areas of exposed soil that exceed 0.1 ha within 1 year of completing activity. Where readily available and comparable in cost, preference must be given to grass seed that is:
 1. high sod-forming content, except in areas that are planted with tree seedlings;
 2. certified by the Canadian Seed Growers Association that the seed; a) meets Common #1 Forage Grade or better standards for varietal purity established by the Association for seed of that kind of species (Seeds Act, Seeds Regulation S. 2(1); and b) is of native origin.

ISSUES OR CONCERNS	ACTIONS TO ACCOMMODATE
Safety	<p>Refer to Taan Pre-work document prior to starting Falling and Harvesting activities.</p> <p>Pruning operations may be completed prior to falling. Overhead hazard potential has increased along pruning boundaries (see map).</p> <p>Dangerous Trees outside the harvest boundary – Operations will be in accordance with Work Safe BC Regulations. Where possible "No Work Zones" will be established. If the Dangerous Tree must be felled, mark an "X" on the stump in the field and mark an "X" on the map for office use.</p> <p>Danger Trees felled within a Wildlife Tree Retention Areas or Reserve Areas are not to be utilized.</p>
Recreation & Wildlife	<p>A WTRA & Timbered Leave Area are adjacent to this cut block to allow for wildlife habitat.</p> <p>If any raptor nests, heron rookeries or other previously unidentified features are found operations within the immediate vicinity of the feature must be stopped until a plan to manage the feature is developed.</p> <p>If a bear den tree is found, contact a Taan representative immediately. No action is to be taken on the newly discovered bear den until Taan has reviewed the den.</p> <p>Species at Risk: There are no species at risk that have been identified in the vicinity of the cutblock.</p>
Visual Quality	N/A
Monumental Cedar & Cultural Heritage Features	<p>STOP work immediately if any cultural features are discovered and report to Supervisor immediately. Features may include but are not limited to: CMTs or Shells exposed during excavation.</p> <p>There are no monumentals to harvest within this block.</p> <p>If a CMT is encountered within the opening, whether alive or dead, standing or fallen, during any phase, logging will cease in the immediate vicinity of the CMT. Notification will be sent to Taan (Manager/Supervisor), MFLNRO (Archaeology Branch) and the Haida Nation. Taan direction must be received prior to operations proceeding.</p>
Terrain Stability	N/A
Road Maintenance	<p>Maintain road access, kilometer signage, public safety signage along roads.</p> <p>Stop road maintenance activities if siltation occurs.</p> <p>Mitigate siltation entering streams by maintaining sumps along ditch lines and installing silt barriers (fences, hay bales etc.) along ditches and prior to creeks. Have ditch water flow into forest floor (filtered) before entering streams.</p>
Slash Management	<p>A planting density of 1200 sph across the cutblock must be obtained post-harvest. In areas of high slash accumulation pile slash, preferably on larger stumps, or create openings in the slash by moving slash around with the grapple or bucket of machine to create plantable spots.</p> <p>Along roadside pile slash for disposal by burning. Create tall hay stack shaped piles with minimal dirt. Keep piles away from creeks / drainages and 100 feet from standing timber.</p>
Windthrow Treatments	<p>Pruning to be completed prior to falling or immediately after falling in the identified pruning areas (see map). Prune windthrow prone trees 20m beyond the falling boundary by removing 30% of the crown by spiral pruning and/or topping 10% of the crown where 30% of the crown cannot be removed by spiral pruning. All cut branches must be removed from the crowns to minimize overhead hazards for the next phases of block development. .</p> <p>Block traffic using flagmen along mainlines during pruning operations.</p>
Sensitive Soils	There are no areas of sensitive soils identified in this area. Use puncheon for all back spar trails and removed/ deactivate trails by dispersing puncheon when complete.
Leave Trees:	N/A
Yew Trees and Pacific Crab Apple Trees	<p>Individual Yew stems and Pacific Crab Apple stems are to be retained where safe to do so. Fall and yard away from stems, retain small windfirm non merch around individual stems. In ground based areas work around yew trees. Do not stack logs on yew trees. In cable yarding areas minimize roads and make all efforts to lift logs over yew trees, or designate a corridor to minimize yew destruction.</p> <p>If yew must be felled try to leave high stumps and as many live branches as possible</p> <p>If yew is at roadside leave laid out for harvest by CHN, do not pile.</p>

RAINFALL SHUTDOWN CRITERIA

Dry Zone <input checked="" type="checkbox"/> <u>Activities must shut down when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall reaches 55 mm in 24 hours; or - Water balance is \geq 55 mm; or - Rainfall since start of the shift is 40mm and continuing. <u>Activities may start back-up when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall is equal to or less than 30 mm in 48 hours or the water balance is < 55 mm. 	Intermediate Zone <input type="checkbox"/> <u>Activities must shut down when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall reaches 75 mm in 24 hours; or - Water balance is \geq 75 mm; or - Rainfall since start of the shift is 60mm and continuing. <u>Activities may start back-up when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall is equal to or less than 30 mm in 48 hours or the water balance is < 75 mm. 	Wet/Very Wet Zone <input type="checkbox"/> <u>Activities must shut down when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall reaches 100 mm in 24 hours; or - Water balance is \geq 100 mm; or - Rainfall since start of the shift is 75 mm and continuing. <u>Activities may start back-up when (whichever occurs first):</u> <ul style="list-style-type: none"> - Total rainfall is equal to or less than 50 mm in 48 hours or the water balance is < 100 mm.
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QUARRIES, PITS, AND SPOIL SITES

DO NOT EXCAVATE A PIT, QUARRY OR SPOIL MATERIAL WITHIN THE RIPARIAN MANAGEMENT AREA (30m) OF ANY STREAM.

STREAMS

Maintain streams in their natural channels. Do not disturb stable, in-stream large woody debris. Machine Free Zones (MFZ) on streams is a minimum of 7m. Do not pile logs within 7m of a stream channel.

Creek I.D.	CLASS	MANAGEMENT STRATEGIES FOR RIPARIAN MANAGEMENT ZONES (RMZ) INCLUDING PROTECTING STREAM
Stream 10	Upland	Fall and Yard away where possible. Yarding across will be required. Use designated machine crossings.
All other Streams		Maintain 7m machine free zone, fall and yard away where possible (falling and yarding across is acceptable if necessary) bridge leaners where necessary. Lift clear during yarding and maintain stream channel integrity. No cleaning required.

1. Logs shall be decked perpendicular to the stream channel, stream flow will be maintained at all times, and any introduced materials will be removed immediately after loading.
2. Do not block or crush culverts with logs yarded to roadside – protect culvert openings and outflows.
3. No machinery is to be left parked within the RMA (30m) of any stream