Forests for Tomorrow
Aerial Forest Fertilization Prescription

ADMINISTRATION/AREA DESCRIPTION			
Resource District	**TSA/TFL/Licensee**	**Location**	**Field Work Completed by and date**
Chilliwack	Chilliwack NRD	Fleetwood	Jeff McWilliams RPF Louis Orieux RPF Heli Feb 3 2020; Louis Orieux RPF Ground Nov 13 2019
Mapsheet	**RESULTS Opening ID**	**Treatment Unit/Block**	**Project Number/Plan name**
092H.040	1298891	Fleet2	CS19LMN004 (20)

Gross Opening(s) Area (ha)	**No Treatment Area (ha)**	***Net Treatment Area (ha)**
15.2	0.0	15.2
Stand Tending History	**Aspect**	**Topography**
N/A	SW	Even to gently rolling

Latitude:	49°23'26.1"N	**Longitude:**	122°0'15.1"W
Elevation (min):	320m	**Elevation (max):**	440m

*The net treatment area accounts for areas removed for NP (natural), permanent access structures, riparian reserve zones, and areas identified as not suitable for treatment. Area estimates are based on digitized (non-traversed) treatment boundaries.

STAND DESCRIPTION[1]				
Dom/Co-Dom trees of target species expected to respond to fertilization (sph)	**Live Crown % (of crop trees)**	**Crown Closure %**		**Age (yrs)**
Fd600	40	60-80		55
Estimate Species Composition/Inventory Component (based on volume or basal area)	**Estimated Height (top height of leading species)**	**Total Estimated (sph)**	**Estimated SI[2]**	**Ht. to Diam (DBH) Ratio**
Fd80HwCw	31-33	800	32-34	0.6-0.8

ECOSYSTEM INFORMATION[1]						
Polygon	**Net Area(ha)**	**Zone Subzone Variant**	**Site Series**	**Edatope Moisture/Nutrients**	**Slope Position**	**Slope Avg. % & Range**
A	9.8	CWHvm1	01(03,05)	(2)3-4/B-C(D)	Mid-slope	30 (15-45)
B	5.4	CWHvm1	01(03,05)	(2)3-4/B-C(D)	Mid-slope	30 (15-45)

[1] Stand and ecological descriptions and stand tending history estimates are based on VRI, RESULTS information, aerial photo review and helicopter and/or field recce assessments.
[2] Based on "Site Index Estimates Derived from RESULTS or field measurements and Site Index Curves or Growth Intercept data.

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TREATMENT DETAILS					
Foliar Analysis: (reference any foliar analysis work) N/A **Re-Treatment: (indicate if area has been previously treated; number of times; years since last treatment and fertilizer used)** Not previously fertilized.					
Polygon	**Net Treatment Area(ha)**	**Type of Fertilizer**	**Prescribed Application Rate**	**Season/ Timing**	**Fertilizer Amount (kg)**
A	9.8	Urea	435 kg/ha	Fall or spring repeated every 7-10 years, up to 10 years prior to harvest	4,263
B	5.4	Urea	435 kg/ha	Fall or spring repeated every 7-10 years, up to 10 years prior to harvest	2,349
Total Area:	15.2	Urea	435 kg/ha	**Total kg:**	6,612

RISK ASSESSMENT: FOREST HEALTH, WILDFIRE
Forest Health RR < 5%
Wildfire (e.g. risk ranking) High
Private Property There are no private properties directly adjacent to the treatment area.

MANAGEMENT OBJECTIVES/IRM VALUES
Treatment Objective(s) and Future Regime:
The treatment objective is to increase the diameter and height growth of dominant and co-dominant Douglas-**fir** and western red cedar crop trees resulting in an increased merchantable volume per hectare. The benefit of treatment is that either the same volume (as with no treatment) can be harvested at an earlier age, or more volume will be available at the originally planned harvest age.
Research Installations or Permanent Sample Plots:
The treatment area is 225m W of an active research installation.
Visuals:
The treatment area has no established visual quality objectives.
Cultural Heritage:
A First Nations referral will be completed prior to each treatment.
Recreation:
The treatment area has no nearby identified recreation sites, reserves, or parks or other ecological reserves.
Wildlife/Biodiversity /Species at Risk:
The treatment area does not conflict with managed areas for wildlife, biodiversity or species at risk.
Range:
The treatment area is not within an established range tenure.
Other Resources or Tenure/Issues: (e.g. Karst; Trappers; hydro rights-of-way; weather stations)
The treatment area is within TraplineTR0209T004. Fertilization is not expected to have significant detrimental effects on wildlife in the area.
Water Bodies/Fish/Water Quality:
Management Objectives: 1. To maintain the water quality of streams flowing in and adjacent to this unit

Riparian Classes	Location/Measures Prescribed/ Buffers/ Comments
Streams (NCD, S4, S6)	Major streams and gullied reaches have been removed from the treatment unit. Streams found to be visible from the air during the pre-treatment aerial recce will be protected by establishing 10-20 m no treatment zones. Streams not visible from the air will be treated over. Fertilizer loading zones will not be located within Riparian Management Zones.
Wetlands W1-W5	N/A
Lakes L1-L5	N/A
Non-classifiable wetland (NCW; NCL; NCD)	N/A
Residential Water Intakes	N/A

Watersheds &Water Quality Sampling (if in community watershed)
N/A

LOGISTICS AND SAFETY	
General Access:	
Distance from Nearest Town (Chilliwack)	Approximately 65km from Chilliwack. Get on Hwy/BC-1 E for 14 km and take exit 135 for BC-9 toward Agassiz/Harrison/Hot spring road. Continue for 8 km and turn right onto Agassiz-Rosedale Hwy/Evergreen Dr/BC-9 N. Continue for 2 km and turn right onto Agassiz-Rosedale Hwy/Cheam Ave/BC-9 N and after 350 m turn right at the 1st cross street onto Agassiz-Rosedale Hwy/Evergreen Dr/BC-9 N for 1.7 km. Turn left onto BC-7 W for 15 km. Turn right onto Chehalis FSR (8241 01 0) for 20km. Turn right onto Maisel FSR and proceed 5.25km to the treatment area.
Access Condition	2x4
Access Improvements Required	None required at this time. Access and stagings should be re-confirmed prior to treatment.
Potential Staging Areas	30– 122°0'38.6"W 49°23'29.9"N
Staging Improvements Required	None required at this time. Access and stagings should be re-confirmed prior to treatment.
Comments:	

Safety: (Distance to hospital and contact information; radio frequencies for access; any safety specific protocols; snags)
Approximately 65km to Chilliwack General Hospital. 45600 Menholm Rd, Chilliwack, BC V2P 1P7 (604) 795-4141

STORAGE/HANDLING OF FERTILIZER
Storage/Transport: (e.g. type of fertilizer; any regulations as far as transport; conditions of storage)
Forest-grade fertilizers are not regulated for rail or road transportation. Because of water solubility, fertilizer must be stored in dry containers and protected from moisture. Storage areas must be secure to prevent wildlife from eating fertilizer – small doses of urea are lethal to ungulates.

Accidental Spills: (e.g. ground, water)
To be handled consistent with the applicator's spill and safety protocols.

FOREST FERTILIZATION PRESCRIPTION CERTIFICATION	
Attachments: 1:5,000 Aerial Fertilization Prescription Map **Plan Prepared By: Alex Ainsworth, FIT** **Date Prepared:** March 11, 2020	**RPF's Signature and Seal** **RPF Name: Louis, Orieux, RPF** **Date Signed:** March 27, 2020