

Appendix 4

20-Year Plan

APPENDIX IV

DUNKLEY LUMBER LTD.

**20-YEAR PLAN
January 1, 2000 to December 31, 2019**

in support of

Management Plan # 3

February 28, 1999

Prepared by

Dunkley Lumber Ltd.

With technical support from

Industrial Forestry Service Ltd.

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DUNKLEY LUMBER LTD.
PROPOSED 20-YEAR PLAN
January 1, 2000 To December 31, 2019

1.0 Introduction

The following 20-Year Plan has been prepared by Dunkley Lumber Ltd., in support of the timber supply analysis and Management Plan # 3 for Tree Farm License # 53. This plan is a strategic development plan prepared in accordance with the Ministry of Forest's (MOF) "Tree Farm Management Guidelines (August 1998)," and proposed *terms of reference* submitted to the District Manager on January 21, 1999. This report has been written for the following reasons:

- A. To provide a summary of the inventory information used for the development of the plan.
- B. To provide guidelines, technical information and direction for the preparation of a feasible 20-Year Plan,
- C. To provide a description of the operational/strategic issues, constraints and concerns that were considered in the development of the plan,
- D. To provide a comparison of assumptions made in the 20-Year Plan and the timber supply analysis which it supports,

Key Map 1 illustrates the location of the T.F.L. # 53 within the Prince George Forest District.

2.0 Status of Inventory Information

The inventory/forest cover information used to prepare the 20-Year Plan for T.F.L. #53. is consistent with data used for the Timber Supply Analysis¹ to estimate the long-term harvest level. Table 1 summarizes the digital file source data. For both the 20-Year Plan and the timber supply analysis, inventory is based on 1991 photos with logging history updated by Hugh Hamilton Ltd. to April 1997. The timber supply analysis projected stand growth to 1998. The 20-Year Plan projected logging history to December 31, 1999 utilizing approved cutblocks from the Forest Development Plan. Cutblocks from the Forest Development Plan were scheduled in either Period 1 or Period 2 of the 20-Year Plan.²

¹This information is described in Table 24 of the Information Package is appended to the timber supply analysis report.

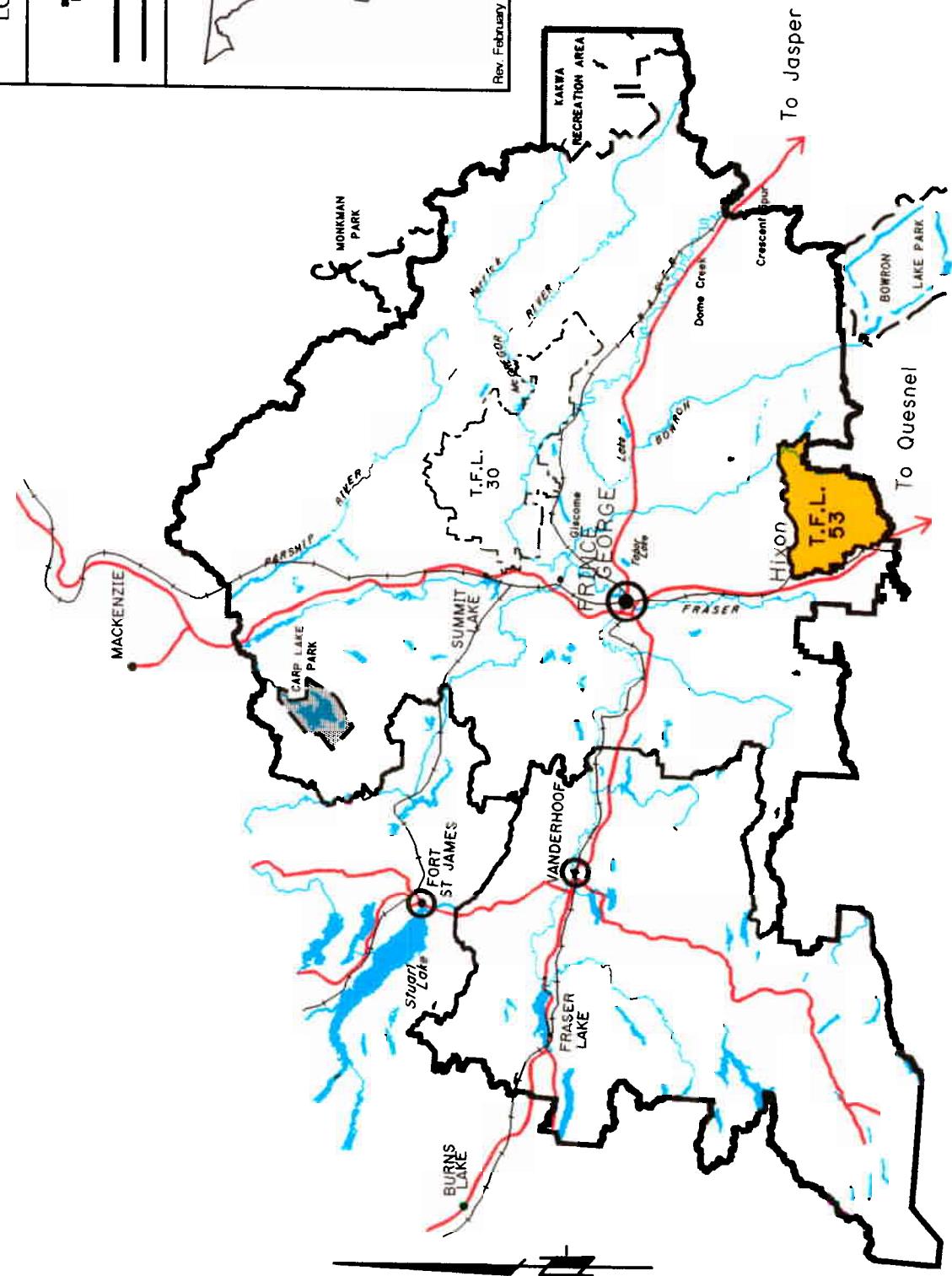
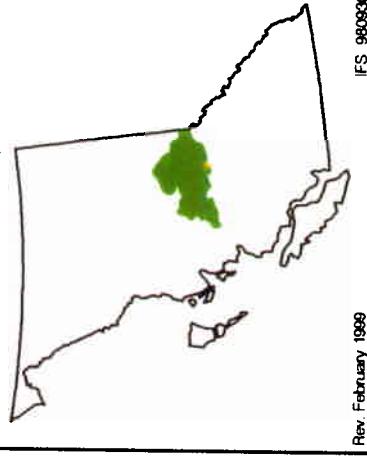
²The 20-Year Plan commences January 1, 2000 and ends December 31, 2019. The 20-year period has been divided into four 5-year periods for scheduling purposes.

MAP #1
KEY MAP TO
LOCATION OF T.F.L. 53

Scale 1 : 2 000 000

Legend
Forest District Boundary
Tree Farm License

Location Map



To address visual quality concerns, the approved visual landscape inventory was used for both the 20-Year Plan and the timber supply analysis. Although new visual quality classes have been proposed, they were not used in preparation of this 20-Year Plan.

Recreation information is consistent with the information used in the timber supply analysis. The following recreation sites were removed from the timber harvesting landbase:

Naver Creek	Stony Lake	Ahbau Lake
Teapot Lake	Genevieve Lake	

Recreation sites on Yardley and Hay Lake have been permanently closed and these areas are now included as part of the harvestable landbase.

Table 1: Forest Resources Inventory Status

Forest Resource Inventory	Standard	Date Completed	Date approved	Approved By	Status
Forest Cover	MOF	Feb 93	June 93	Regional Inventory Forester	Updated annually ³
Landscape	MOF	Nov 98	Dec 98	District Manager	Approved
Recreation	MOF	Feb 94	June 94	Regional Manager	Approved
Forest Development Plan	MOF	May 98	Nov 98	District Manager	Approved

³Disturbance history for the Timber Supply Analysis was updated to April 1997.

3.0 Guidelines Followed

Guidelines followed in the preparation of the 20-Year Plan are consistent with Dunkley's approved SMOOP for M.P. # 3. These guidelines are:

Harvest methods:

- ▶ Prescribed on a site specific basis with operations conducted to minimize soil disturbance, soil compaction and other environmental concerns.
- ▶ Methods to be used include conventional ground based systems, horse logging, overhead cable system and helicopter logging.

Utilization Standards:

- ▶ During the term of M.P.# 3 utilization specifications will be:
 - a minimum stump height of 30 cm for all species,
 - a minimum top diameter (inside bark) of 10 cm for all species,
 - minimum DBH 17.5 cm for spruce, balsam, aspen and Douglas-fir
 - minimum DBH of 12.5 cm for pine.

Partitioned Cut:

- ▶ A targeted partitioned cut on Residual Balsam stands having a stand volume of 50 to 140 m³/ha will be maintained at 4,100 m³/year.⁴

Deciduous Stands:

- ▶ Deciduous leading stands with a major coniferous component will be scheduled for harvest if the stand is sufficiently old enough that it appears to be converting to coniferous. The coniferous component must be greater than the regional priority harvest age.

⁴Based on minimum MoF harvest age criteria, only 218 hectares of Balsam IU stands are available for harvest during the next 10 years. The model is not reflecting the operational practice. To address this, Dunkley has proposed to harvest approximately 200 hectares of Balsam IU during each 5-year period of this plan, by reducing the minimum harvest age of balsam in these IU areas.

Harvest Prescriptions⁵:

- ▶ Standard block size is 40-60 hectares. Blocks larger than 60 hectares were proposed if the location was consistent with the structural characteristics, as well as, temporal and spatial distribution of natural openings (i.e. OPR II 3 b ii)
- ▶ Minimum block size is 1 hectare except for salvage areas, that have been proposed in the Forest Development Plan
- ▶ In parts of the T.F.L. where little historic logging has occurred, a 3-pass system was used to schedule the mature plus thrifty timber. In the remaining areas of the T.F.L., the harvesting history of the T.F.L. does not lend itself into a “pass” definition. In these areas, blocks are scheduled when adjacent green-up is met.
- ▶ Block shapes - irregular with considerations for natural land formations, stand merchantability, visual concerns, slope, wind and wildlife habitat.
- ▶ Harvest delay period between passes is the green-up delay for plantations to reach 3 metres in the IRM zone and VEG height in visually sensitive areas.
- ▶ Harvest delay is predicted using the TIPSY model.
- ▶ Reserve width - blocks were spaced with consideration for future availability, therefore reserve widths vary. Reserve widths correspond to block size (i.e. small blocks have small reserves, large blocks have large reserves), except where block corners touch due to 3 pass block scheduling and block amalgamations where windfall potential is high.
- ▶ Partial cuts have been proposed in some areas to minimize harvest impact on visual quality, slope stability and wildlife habitat.

⁵All cutblocks in the 20-Year Plan, were proposed using the harvest prescriptions stated in the proposed *terms of reference*.

4.0 Net Operable Landbase

The net operable landbase or T.H.L.B is identified in Appendix II (Map 2) at a scale of 1:50,000. Areas removed from the gross forest landbase include reductions for problem forest types, poor site quality, environmentally sensitive areas, riparian reserves, recreation reserves, and road buffers. The remaining area or net operable landbase is colour coded on Map 3 (Appendix III) at a scale of 1:50,000 according to species, height and age criteria. Blocks proposed in the 20-Year Plan have been located in these areas.

5.0 Proposed 20-Year Development Plan

Map 3 identifies areas proposed for harvesting and road development during the next 20-year period. It is displayed on the approved Forest Development Plan base and it identifies resource features, present green-up height, and proposed cutblocks.

5.1 Resource Features

5.11 Old Growth

Seral stage distribution of old growth were factored into the timber supply analysis over a 140 year period, based on natural disturbance type. The 20-Year Plan does not account for seral stage distributions, however age class 9 (241 years+) stands of timber were reserved from harvesting wherever possible. The 20-Year Plan does not track candidate old growth stands into age class 9.

5.12 Visually Sensitive Areas

Visually sensitive areas were accounted for in both the 20-Year Plan and the analysis report in a slightly different manner. In the analysis report, forest cover constraints were applied to limit harvest availability in scenic areas with visual quality objectives (VQOs). Forest cover constraints were applied to the gross forested area in these VQO zones. In the 20-Year Plan, monitoring levels of forest cover denudation would have produced an unnecessary amount of file reads in order to ensure compliance to the VQO. To account for the harvest restrictions, partial cuts were proposed for any blocks proposed in partial retention, retention and preservation VQO zones. The partial cuts in these zones have assumed that 75% of the total volume will be removed. This will allow for retention of understorey and smaller diameter trees on these sites.

5.13 Slope Stability Classes

The analysis report does not allow for slope stability concerns, as these areas can be harvested using overhead cable and helicopter logging methods. The 20-Year Plan however, identifies areas with Slopes Stability Classes IV & V. Partial cuts in these areas assume that 90% of the volume will be removed and some thrifty understorey will be retained.

5.2 Green-Up

Green-up was projected to August 7th, 1998. The 20-Year Plan accounted for regeneration delay based on the average, area-weighted green-up height derived using the managed stand growth model TIPSY (ie: IRM 15 years). This is consistent with the timber supply analysis.

5.3 Proposed Blocks

5.31 Spatial Distribution

3-Pass System

A 3-pass harvest system on the net mature landbase was applied in the 20-Year Plan. Deviations from this occurred on a site specific basis when considerations were given to blowdown areas, patch size distributions and historic logging. The timber supply analysis applied a 33% forest cover constraint to the total net landbase, to simulate the spatial and temporal constraints of scheduling timber availability.

Adjacency Constraints

The harvest prescription for each cutblock has allowed for a harvest delay period between passes. The proposed green-up delay period will be sufficient for plantations to reach 3 metres in the IRM zone and VEG height in visually sensitive areas.

Balsam IU

Most of the stands identified as Balsam IU have not achieved their minimum harvest age. The timber supply analysis identified only 218 hectares of these stands available for harvest in the next 10 years. As described earlier, approximately 200 hectares of Balsam IU are proposed for harvest during each 5-year period. Rehabilitation activities on these sites are not expected to cause harvest delay problems for adjacent blocks, as much of the green-up will be retained.

5.32 Temporal Distribution

Harvest Age

Minimum harvest age for both the 20-Year Plan and the timber supply analysis was applied using MOF regional priority cutting age for all merchantable species. The analysis diverges slightly from the 20-Year Plan when the forest estate model allows stands to be harvested at the beginning of a 10-year period, even if the stand has not yet reached cutting age. This look-ahead feature is built into the model and assumes these stands will become available for harvesting sometime during the next 10 year period. The 20-Year Plan did not assume a similar, liberal approach to timber availability and is based on forest inventory ages instead.

Harvest Volume

Both the timber supply analysis and the 20-Year Plan calculated existing and future (0-20 years) harvested stand volumes using the MOF Variable Density Yield Prediction (VDYP) model. In the case of the 20-Year Plan, volumes were stand (polygon) specific after proposed cutblocks were intersected into the forest cover base using ARC-INFO GIS. To account for the growth of timber over the term of the 20-Year Plan, polygon volumes were projected to the midpoint of each 5-year harvest period. For the timber supply analysis, the volumes were predicted using the yield table function in VDYP. All volumes reported are net of decay, waste and breakage.

The volumes predicted for Balsam IU stands are believed to be incorrectly overestimated on the inventory files. A volume per hectare of 75 m³/hectare was assumed for the 20-Year Plan.

Commercial Thinning

The timber supply analysis did not assume commercial thinning will be done to any significant extent. Blocks scheduled for commercial thinning in the 20-Year Plan accounted for some additional volume by assuming that 30% of gross volume would be harvested from some thrifty pine stands.

Wildlife Tree Patches

Wildlife tree patches were modelled in the timber supply analysis by doubling the areas required and scheduling the harvest of WTPs over a 160 year rotation. To account for WTPs in the 20-Year Plan, a 2% reduction was applied to the total net merchantable volume for each 5-year period. The remaining area required for wildlife habitat was assumed to come from riparian reserves, unmerchantable stems and other excluded

landbase in and around cut blocks.

Harvest Schedule

The timber supply analysis harvests stands using an oldest first harvest rule. The rule is subject to constraints imposed by old growth requirements by NDT. The 20-Year Plan, which considers the spatial and temporal distribution of harvests, has scheduled cutblocks that will meet adjacency and green-up criteria and has targeting the older stands in the central and north-east portions of the T.F.L. as the priority (ie. Periods 1 & 2). Some younger mature and thrifty stands will reach MOF harvest age criteria during the next 20 years in the southern and western portions of the T.F.L. and have been scheduled as a second priority (ie. Period 3). Similarity Period 4 targets older stands in the central and north-east that have met green-up constraints, as well as, younger stands reaching MOF harvest age criteria in the north and northwest portion of the T.F.L.

Blocks scheduled by 5-year period are illustrated on Map 3. Table 2 (Appendix I) summarizes areas, volumes, adjustment factors, silviculture systems and harvest methods proposed for each block by 5-year period.

6.0 Timber Quality

Map 4 (Appendix IV) provides an overview of timber quality found on the T.F.L. This map was produced by J.S. Thrower and Associates Ltd., upon the completion of a site index adjustment using Biogeoclimatic Ecosystem Classification for T.F.L. # 53. Site series were defined by Keystone Wildlife Research Ltd and Oikos Ecological Consultants Ltd. The adjusted site index which resulted from this information were used in the timber supply analysis in the calculation of future managed stand yields for the timber supply analysis. The area-weighted BEC site index was used in the 20-Year Plan to predict green-up delay for cutblock adjacency.

7.0 Harvest Methods

Map 5 (Appendix V) illustrates slope classes generated from TRIM data using used ARC-INFO GIS to help differentiate between potential conventional and cable harvest areas. Harvest methods remain unchanged for any blocks included in the approved Forest Development Plan. Harvest methods for all other blocks were proposed utilizing slope classes, terrain stability classes, proposed access and photo interpretation. No areas within the T.F.L. were considered inoperable due to slope.

T.F.L. 53 20-Year Plan

APPENDIX 1

Table 2 - Harvest Schedule

Table 2: Harvest Schedule

PERIOD 1 (January 1, 2000 to December 31, 2004)									
Map Sheet	CP	Blk	Gross Area (ha)	Gross Volume (m3)	Net Volume (m3)	Operability Zone Adjustment (%)	Silviculture System	Harvest Method	Comments
093G048	121-1	87	40.1	13496.7	13496.7	100%IRM	CC - R	GB	
093G048	124-1	123	31.5	7267.5	6686.1	80%TS@90%	SEL	GB	
093G048	112-2	135	15.0	5476.2	4983.3	90%TS@90%	SEL	GB	
093G048	167-1	142	53.0	19357.4	19357.4	100%IRM	CC - R	GB	
093G048	113-1	200	8.1	3472.6	3472.6	100%IRM	CC	GB	
093G048	SBFEP-Y	300	24.3	7009.0	6868.8	20%TS@90%	CC - R / SEL	GB	
093G049	142-1	26	55.6	20415.3	20415.3	100%IRM	CC - R	GB	
093G049	142-2	45	64.0	20967.0	20967.0	100%IRM	CC - R	GB	
093G049	162-1	52	6.6	1934.9	1934.9	100%IRM	CC	GB	
093G049	110-1	65	348.2	113071.5	33921.5	100%IRM	SEL	GB	Remove 30% of the volume
093G049	162-2	67	7.3	2705.9	2705.9	100%IRM	CC	GB	
093G049	49-1	77	59.1	20187.6	20187.6	100%IRM	CC - R	Cable	
093G049	162-3	94	15.2	4049.5	4049.5	100%IRM	CC - R	GB	
093G049	49-2	108	36.3	12096.7	12096.7	100%IRM	CC - R	Cable	
093G049	A49610-A3	113	62.1	814.1	814.1	100%IRM	CC - R	GB	
093G049	162-4	117	10.0	3170.9	3170.9	100%IRM	CC	GB	
093G049	106-1	118	22.9	7289.6	7289.6	100%IRM	CC - R	Cable	
093G049	49-3	134	53.9	16132.2	16132.2	100%IRM	CC - R	GB/Cable	
093G049	162-5	139	6.0	1644.8	1644.8	100%IRM	CC	GB	
093G049	165-2	161	57.9	13753.8	13753.8	100%IRM	CC - R	GB	
093G049	165-1	197	63.4	23453.3	23453.3	100%IRM	CC - R	GB	
093G049	59-1	215	54.5	16053.6	15572.0	30%TS@90%	CC - R / SEL	Cable/Heli	
093G049	144-1	236	42.4	14597.5	14597.5	100%IRM	CC - R	GB	
093G049	164-1	258	43.2	12806.6	12806.6	100%IRM	CC - R	GB	
093G049	SBFEP-AG	264	49.0	16120.1	14669.3	90%TS@90%	SEL	GB	
093G049	164-2	280	51.2	18586.4	18586.4	100%IRM	CC - R	GB	

093G050	SBFEP-AB	10	65.8	25301.6	25301.6	100%IRM	CC - R	GB
093G050	141-1	20	46.7	15575.5	15575.5	100%IRM	CC - R	GB
093G050	141-3	25	49.9	14528.6	13511.6	70%TS@90%	CC - R / SEL	GB
093G050	153-1	46	58.3	21245.6	21245.6	100%IRM	CC - R	GB
093G050	141-2	71	59.2	18220.9	17492.1	40%TS@90%	CC - R / SEL	GB
093G050	118	76	522.3	155846.9	152730.0	20%TS@90%	CC - R / SEL	GB/Heli
093G050		192	59.0	18350.0	18350.0	100%IRM	CC - R	GB
093G050	109-1	243	17.0	6387.7	6387.7	100%IRM	CC - R	GB

093H041	148-6	109	7.1	3387.8	3387.8	100%IRM	CC	GB
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093G038	98-1	309	47.0	18106.5	5432.0	100%IRM	Com Thin	GB	Commercial thinning @ 30% removal
093G038	126-1	325	116.0	44385.6	13315.7	100%IRM	Com Thin	GB	Commercial thinning @ 30% removal
093G038	123-1	417	37.2	10344.8	10344.8	100%IRM	CC - R	GB	
093G038	168-1	421	65.4	24804.0	24804.0	100%IRM	CC - R	GB	
093G038	125-1	466	36.9	4342.5	4342.5	100%IRM	CC - R	GB	Deciduous block
093G038	122-1	471	33.2	12162.2	12162.2	100%IRM	CC - R	GB	
093G038	122-2	481	2.6	1028.1	1028.1	100%IRM	CC	GB	
093G038	122-4	510	42.9	17580.0	17580.0	100%IRM	CC - R	GB	
093G038	145-1	511	64.6	25553.5	25553.5	100%IRM	CC - R	GB/Cable	
093G038	122-3	523	44.0	17565.5	17565.5	100%IRM	CC - R	GB	
093G038	104-1	558	46.3	12131.1	12131.1	100%IRM	CC - R	GB	

093G039	131-3	312	21.4	2387.9	1604.3	100%IRM	SEL	GB	21.4 ha Balsam IU @ 75m3/ha
093G039	SBFEP-AD	317	48.3	14461.0	14461.0	100%IRM	CC - R	GB	
093G039	131-2	323	22.9	2532.1	1714.2	100%IRM	SEL	GB	22.9 ha Balsam IU @ 75m3/ha
093G039	131-1	335	49.4	203.5	3708.3	100%IRM	SEL	GB	15.8 ha Balsam IU @ 75m3/ha
093G039	SBFEP-R	338	46.1	18197.0	18197.0	100%IRM	CC - R	GB	
093G039	SBFEP-T	427	26.5	7304.4	7304.4	100%IRM	CC - R	GB	
093G039	160-1	430	48.3	18610.7	16749.6	100%TS@90%	SEL	GB	
093G039	158-5	463	54.6	26334.3	26334.3	100%IRM	CC - R	GB	
093G039	116-2	479	56.1	17910.8	16657.0	70%TS@90%	CC - R / SEL	GB/Cable	56.1 ha BalsamIU @ 75m3/ha
093G039	137-1	493	50.0	20588.6	20588.6	100%IRM	CC - R	GB	
093G039	145-2	505	53.0	20514.6	19899.2	30%TS@90%	CC - R / SEL	GB/Cable	
093G039	129-1	506	45.2	0.0	3393.0	100%IRM	SEL	GB	45.2 ha BalsamIU @ 75m3/ha
093G039	137-2	529	62.6	31971.5	31012.4	30%TS@90%	CC - R / SEL	GB	
093G039	108-1	534	14.0	3995.5	3755.8	60%TS@90%	CC - R / SEL	GB/Heli	
093G039		569	25.6	9140.9	9140.9	100%IRM	CC - R	GB	

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							CC - R	GB
093G039		569	25.6	9141	9141	100%IRM	CC - R	GB
093G040		326	56.1	20272	20272	100%IRM	CC - R	GB
093G040	138-1	343	60.9	27186	27186	100%IRM	CC - R	GB/Cable
093G040	138-2	357	32.0	13636	13636	100%IRM	CC - R	GB
093G040	168-1	363	39.9	15700	15700	100%IRM	CC - R	GB
093G040		376	208.3	63682	62408	20%TS@90%	CC - R / SEL	GB
093G040	155-1	380	54.3	18698	18698	100%IRM	CC - R	GB
093G040	143-1	400	36.3	13947	13947	100%IRM	CC - R	GB
093G040	SBFEP-AC	423	22.0	10365	10365	100%IRM	CC - R	Cable
093G040	140-1	443	35.2	15009	15009	100%IRM	CC - R	GB
093G040	158-4	521	53.8	19456	19456	100%IRM	CC - R	GB
093G040	157-1	539	57.5	21986	20886	20%PR@75%	CC - R / SEL	GB
093G040	139-2	559	51.3	18017	18017	100%IRM	CC - R	GB
093G040	139-1	560	52.3	19725	19725	100%IRM	CC - R	GB
093G028	104-2	607	27.7	2533	2533	100%IRM	CC - R	GB
								Deciduous block
093G029	93-1	563	46.7	17823	16398	80%TS@90%	CC - R / SEL	Heli
093G029	158-2	564	43.2	14831	14831	100%IRM	CC - R	GB
093G029	85-1	611	57.3	21966	21088	40%TS@90%	CC - R / SEL	GB/Heli
093G029	130-3	647	44.1	172	3308	100%IRM	SEL	GB
093G029	96-1	664	26.3	4985	1496	100%IRM	Com Thin	GB
093G029	159-1	665	52.3	17904	16561	30%PR@75%	CC - R / SEL	GB
093G029	97-1	692	32.0	9003	2701	100%IRM	Com Thin	GB
TOTALS			4416.0	1423826	1280613			2% Reduction for WTPs
					1255000			

Note: CC - R = Clearcut with Reserves, CC = Clearcut, SEL = Selection, Corn Thin = Commercial thinning

GB = Ground Based Skidding, Cable = Cable logging, Heli = Helicopter logging

IRM = Integrated Resource Management, TS= Terrain Stability classes IV and V, PR = Partial Retention

Operability Zone Adjustment (%) describes factors that were used to reduce block volumes for TS and PR concerns. For example:

(i) 80%TS@90% indicates that 80% of the blocks has TS features and 90% of the volume is removed in that part of the block

(ii) 20%PR@75% Indicates that 20% of the block has PR features and 75% of the volume is removed in that part of the block

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093G040		326	56.1	20272	20272	100%IRM	CC - R	GB
093G040	138-1	343	60.9	27186	27186	100%IRM	CC - R	GB/Cable
093G040	138-2	357	32.0	13636	13636	100%IRM	CC - R	GB
093G040	168-1	363	39.9	15700	15700	100%IRM	CC - R	GB
093G040		376	208.3	63682	62408	20%TS@90%	CC - R / SEL	GB
093G040	155-1	380	54.3	18698	18698	100%IRM	CC - R	GB
093G040	143-1	400	36.3	13947	13947	100%IRM	CC - R	GB
093G040	SBFEP-AC	423	22.0	10365	10365	100%IRM	CC - R	GB
093G040	140-1	443	35.2	15009	15009	100%IRM	CC - R	Cable
093G040	158-4	521	53.8	19456	19456	100%IRM	CC - R	GB
093G040	157-1	539	57.5	21986	20886	20%PR@75%	CC - R / SEL	GB
093G040	139-2	559	51.3	18017	18017	100%IRM	CC - R	GB
093G040	139-1	560	52.3	19725	19725	100%IRM	CC - R	GB

093G028	104-2	607	27.7	2533	2533	100%IRM	CC - R	GB	Deciduous block
093G029	93-1	563	46.7	17823	16398	80%TS@90%	CC - R / SEL	Heli	
093G029	158-2	564	43.2	14831	14831	100%IRM	CC - R	GB	
093G029	85-1	611	57.3	21966	21088	40%TS@90%	CC - R / SEL	GB/Heli	
093G029	130-3	647	44.1	172	3308	100%IRM	SEL	GB	44.1 ha Balsam IU @ 75m3/ha
093G029	96-1	664	26.3	4985	1496	100%IRM	Com Thin	GB	Commercial thinning @ 30% removal
093G029	159-1	665	52.3	17904	16561	30%PR@75%	CC - R / SEL	GB	
093G029	97-1	692	32.0	9003	2701	100%IRM	Com Thin	GB	Commercial thinning @ 30% removal
TOTALS		4416.0	1423826	1280613					2% Reduction for WTPs

Note: CC - R = Clearcut with Reserves, CC = Clearcut, SEL = Selection, Com Thin = Commercial thinning

GB = Ground Based Skidding, Cable = Cable logging, Heli = Helicopter logging

IRM = Integrated Resource Management, TS= Terrain Stability classes IV and V, PR = Partial Retention

Operability Zone Adjustment (%) describes factors that were used to reduce block volumes for TS and PR concerns. For example:

(i) 80%TS@90% indicates that 80% of the blocks has TS features and 90% of the volume is removed in that part of the block

(ii) 20%PR@75% indicates that 20% of the block has PR features and 75% of the volume is removed in that part of the block

Table 2: Harvest Schedule

PERIOD 2 (January 1, 2005 to December 31, 2009)									
Map Sheet	CP	Blk	Gross Area (ha)	Gross Volume (m3)	Net Volume (m3)	Operability Zone Adjustment (%)	Silviculture System	Harvest Method	Comments
093G048		91	11.3	2586.8	2586.8	100%IRM	CC - R	GB	
093G048		92	34.4	12421.4	12421.4	100%IRM	CC - R	GB	
093G048		101	11.6	2986.7	2986.7	100%IRM	CC - R	GB	
093G048	112-1	111	49.3	18180.8	17999.0	10%TS@90%	CC - R / SEL	GB	
093G048	A49610-A2	116	63.5	21226.1	19952.5	60%TS@90%	CC - R / SEL	GB	
093G048		130	59.2	19135.7	19135.7	100%IRM	CC - R	GB	
093G048		170	49.9	13733.6	13733.6	100%IRM	CC - R	GB	
093G048		179	60.4	19487.0	19487.0	100%IRM	CC - R	GB	
093G048		187	61.1	19883.0	19883.0	100%IRM	CC - R	GB	
093G048		231	53.1	17219.7	17219.7	100%IRM	CC - R	GB	
093G048		242	37.8	11602.1	11602.1	100%IRM	CC - R	GB	
093G048		266	58.7	18931.1	18931.1	100%IRM	CC - R	GB	
093G048		291	37.7	12051.5	12051.5	100%IRM	CC - R	GB	
093G048		293	19.9	6434.4	6434.4	100%IRM	CC - R	GB	
093G049	162-6	21	36.8	12827.4	12827.4	100%IRM	CC - R	GB	
093G049		37	9.0	3408.3	3408.3	100%IRM	CC	GB	
093G049		39	32.8	12840.9	12840.9	100%IRM	CC - R	GB	
093G049		41	5.8	2422.4	2422.4	100%IRM	CC	GB	
093G049		57	42.9	10349.2	10349.2	100%IRM	CC - R	GB	
093G049	161-1	75	50.7	17543.9	17543.9	100%IRM	CC - R	GB	
093G049		85	48.7	12940.5	12940.5	100%IRM	CC - R	GB	
093G049		223	49.0	13034.0	13034.0	100%IRM	CC - R	GB	
093G049		245	32.1	8905.7	8104.2	90%TS@90%	SEL	GB/Cable	
093G049		262	43.0	12010.0	12010.0	100%IRM	CC - R	GB	
093G049		281	59.2	16400.1	15908.1	30%TS@90%	CC - R / SEL	GB/Cable	
093G049		287	34.6	14045.2	14045.2	100%IRM	CC - R	GB	
093G049		295	35.6	12071.3	12071.3	100%IRM	CC - R	GB	

095G050		3	39.5	13200.4	13200.4	100%IRM	CC - R	GB
095G050		9	6.9	2204.4	2204.4	100%IRM	CC	GB
095G050		15	21.7	7708.2	7708.2	100%IRM	CC - R	GB
093G050		28	36.4	9598.4	9598.4	100%IRM	CC - R	GB
095G050		44	44.0	15951.5	15951.5	100%IRM	CC - R	GB
095G050		51	39.8	15126.8	15126.8	100%IRM	CC - R	GB
095G050		61	18.0	6941.3	6941.3	100%IRM	CC - R	GB
095G050		79	39.8	15259.2	15259.2	100%IRM	CC - R	GB
095G050		95	51.7	19818.9	19818.9	100%IRM	CC - R	GB
095G050		99	8.9	3412.9	3412.9	100%IRM	CC	GB
095G050		125	29.8	11384.6	11384.6	100%IRM	CC - R	GB
095G050		151	28.8	11671.2	11671.2	100%IRM	CC - R	GB
095G050		152	31.7	12398.6	12398.6	100%IRM	CC - R	GB
095G050		154	30.4	12512.1	12512.1	100%IRM	CC - R	GB
095G050		166	32.3	12753.4	12753.4	100%IRM	CC - R	GB
095G050		167	21.5	9085.0	9085.0	100%IRM	CC - R	GB
095G050		168	51.0	23659.8	23659.8	100%IRM	CC - R	GB
095G050		196	41.8	14698.4	14698.4	100%IRM	CC - R	GB/Cable
093G050	154-1	199	58.7	26473.0	26473.0	100%IRM	CC - R	GB
095G050		222	25.5	10135.8	10135.8	100%IRM	CC - R	GB
095G050		252	37.5	15339.6	15339.6	100%IRM	CC - R	GB/Cable
095G050		255	49.6	20458.2	20458.2	100%IRM	CC - R	GB
095G050		269	45.3	17703.4	16110.1	90%TS@90%	SEL	GB/Cable
095G050		284	45.5	18338.5	18338.5	100%IRM	CC - R	GB

093H041		6	11.0	6030.4	6030.4	100%IRM	CC - R	GB
093H041	153-3	23	51.7	22879.7	22879.7	100%IRM	CC - R	GB
093H041		23	51.7	22879.7	22879.7	100%IRM	CC - R	GB
093H041		34	36.2	14945.4	14945.4	100%IRM	CC - R	GB
093H041		72	32.6	14988.8	14988.8	100%IRM	CC - R	GB
093H041		86	24.1	8669.8	8669.8	100%IRM	CC - R	GB
093H041		102	13.5	5733.2	5733.2	100%IRM	CC - R	GB
093H041		105	23.4	9279.7	9279.7	100%IRM	CC - R	GB
093H041		128	34.4	15913.4	15117.7	50%TS@90%	CC - R / SEL	GB
093H041		150	5.9	2145.6	2145.6	100%IRM	CC	GB
093H041		984	6.7	2870.9	2870.9	100%IRM	CC	GB
093H041		985	18.6	8935.8	8935.8	100%IRM	CC - R	GB

093G039	303	53.2	20280.6	20280.6	100%IRM	CC - R	GB
093G039	347	26.1	8023.0	8023.0	100%IRM	CC - R	GB
096G039	398	46.3	15810.7	15810.7	100%IRM	CC - R	GB
096G039	399	44.2	17741.4	17741.4	100%IRM	CC - R	GB
096G039	414	70.8	28459.4	28459.4	100%IRM	CC - R	GB
096G039	416	19.5	6504.0	6504.0	100%IRM	CC - R	GB
096G039	429	29.9	14143.0	14143.0	100%IRM	CC - R	GB
096G039	435	50.5	22660.7	22660.7	100%IRM	CC - R	GB
096G039	448	44.9	22781.4	22781.4	100%IRM	CC - R	GB
096G039	541	51.3	18446.6	18446.6	100%IRM	CC - R	GB
096G039	761	97.7	20055.8	7323.8	100%IRM	SEL	GB
096G039	763	37.8	2270.8	2836.1	100%IRM	SEL	GB

97.7 ha BalsamIU @ 75m3/ha

096G040	301	36.0	13868.3	13868.3	100%IRM	CC - R	GB
096G040	302	55.4	20714.2	20714.2	100%IRM	CC - R	GB
096G040	307	47.2	14439.0	13861.4	40%TS@90%	CC - R / SEL	GB/Cable
096G040	315	49.9	20000.8	19200.8	40%TS@90%	CC - R / SEL	GB
093G040	330	73.3	22995.9	20926.3	90%TS@90%	CC - R / SEL	GB/Cable
093G040	358	49.8	16979.7	16130.7	50%TS@90%	CC - R / SEL	GB
096G040	379	47.7	19769.7	19769.7	100%IRM	CC - R	GB
096G040	382	46.2	17198.4	17198.4	100%IRM	CC - R	GB
096G040	388	42.3	17833.2	17833.2	100%IRM	CC - R	GB
096G040	395	17.4	8257.9	8257.9	100%IRM	CC - R	GB
096G040	442	41.9	15050.1	15050.1	100%IRM	CC - R	GB
096G040	451	8.7	4127.5	4127.5	100%IRM	CC	GB
096G040	458	35.3	15996.1	15996.1	100%IRM	CC - R	GB
096G040	468	31.7	11263.4	11263.4	100%IRM	CC - R	GB
096G040	513	43.8	18758.8	18758.8	100%IRM	CC - R	GB
096G040	977	45.1	20188.4	20188.4	100%IRM	CC - R	GB

093G029		571	7.5	2389.6	2389.6	100%IRM	CC	GB
093G029		589	30.7	4460.7	4460.7	100%IRM	CC - R	GB
093G029	158-3	594	54.5	18403.7	18403.7	100%IRM	CC - R	GB
093G029		596	49.7	11530.9	11530.9	100%IRM	CC - R	GB
093G029		616	40.1	13796.4	13796.4	100%IRM	CC - R	GB
093G029		640	45.6	13500.8	13500.8	100%IRM	CC - R	GB
093G029	130-1	652	38.0	4781.9	2853.5	100%IRM	SEL	GB 38.0 ha BalsamIU @ 75m3/ha
093G029	130-2	659	18.2	1239.3	1367.5	100%IRM	SEL	GB 18.2 ha BalsamIU @ 75m3/ha
093G029		974	14.1	4049.6	4049.6	100%IRM	CC - R	GB

3776.6 1334556.5 1311155.5

1284932.4

2% Reduction for WTPs

Note: CC - R = Clearcut with Reserves, CC = Clearcut, SEL = Selection, Com Thin = Commercial thinning

GB = Ground Based Skidding, Cable = Cable logging, Heli = Helicopter logging

IRM = Integrated Resource Management, TS= Terrain Stability classes IV and V, PR = Partial Retention

Operability Zone Adjustment (%) describes factors that were used to reduce block volumes for TS and PR concerns. For example:

(i) 80%TS@90% indicates that 80% of the blocks has TS features and 90% of the volume is removed in that part of the block

(ii) 20%PR@75% indicates that 20% of the block has PR features and 75% of the volume is removed in that part of the block

Table 2: Harvest Schedule

PERIOD 3 (January 1, 2010 to December 31, 2014)									
Map Sheet	CP	Blk	Gross Area (ha)	Gross Volume (m3)	Net Volume (m3)	Operability Zone Adjustment (%)	Silviculture System	Harvest Method	Comments
093G049		136	6.6	2326.6	2326.6	100%IRM	CC	GB	
093G049		163	12.3	5099.0	5099.0	100%IRM	CC - R	GB	
093G049		189	21.7	6508.0	6508.0	100%IRM	CC - R	GB	
093G049		230	65.6	18706.2	18706.2	100%IRM	CC - R	GB/Cable	
093G049		268	18.0	5394.6	5394.6	100%IRM	CC - R	GB	
093G050		1	21.3	7142.5	7142.5	100%IRM	CC - R	GB	
093G050		29	14.6	4847.7	4847.7	100%IRM	CC - R	GB	
093G050		42	7.9	2737.9	2737.9	100%IRM	CC	GB	
093G050		49	39.9	11189.9	10630.4	50%TS@90%	CC - R / SEL	GB/Cable	
093G050		84	64.2	20137.5	19936.1	10%TS@90%	CC - R / SEL	GB/Cable	
093G050		210	39.5	18169.2	17987.5	10%TS@90%	CC - R / SEL	GB	
093G038		342	29.0	10260.4	10260.4	100%IRM	CC - R	GB	
093G038		365	32.5	9026.0	9026.0	100%IRM	CC - R	GB	
093G038		366	54.2	18505.9	18505.9	100%IRM	CC - R	GB	
093G038		370	50.8	17442.4	17442.4	100%IRM	CC - R	GB	
093G038		372	34.1	10802.6	10802.6	100%IRM	CC - R	GB	
093G038		375	23.2	7716.9	7716.9	100%IRM	CC - R	GB	
093G038		397	31.4	10107.3	10107.3	100%IRM	CC - R	GB	
093G038		406	39.2	12392.1	12392.1	100%IRM	CC - R	GB	
093G038		408	65.3	24978.7	24978.7	100%IRM	CC - R	GB	
093G038		410	41.5	15249.7	14487.2	20PR@75%	CC - R / SEL	GB	
093G038		453	35.7	10838.9	10297.0	20PR@75%	CC - R / SEL	GB	
093G038		464	25.8	8169.5	8169.5	100%IRM	CC - R	GB	
093G038		488	42.9	10112.5	10112.5	100%IRM	CC - R	GB	
093G038		490	11.4	4304.6	4304.6	100%IRM	CC - R	GB	
093G038		540	12.3	3977.5	3977.5	100%IRM	CC - R	GB	
093G038		549	51.7	18275.7	18275.7	100%IRM	CC - R	GB	
093G038		802	59.2	10769.1	10769.1	100%IRM	CC - R	GB	
093G038		804	15.6	1474.7	1167.4	100%IRM	SEL	GB	15.6 ha Balsam IU @ 75m3/ha
093G038		808	23.4	7271.2	7271.2	100%IRM	CC - R	GB	
093G038		809	34.2	4522.3	4522.3	100%IRM	CC - R	GB	
093G038		813	24.8	9615.5	9615.5	100%IRM	CC - R	GB	

093G039	319	18.6	6970.9	6970.9	100%IRM	CC - R	GB
093G039	334	31.7	8789.3	8174.0	70%TS@90%	CC - R / SEL	GB/Cable
093G039	350	66.4	22531.8	22531.8	100%IRM	CC - R	GB/Cable
093G039	360	14.2	3463.3	3394.0	20%TS@90%	CC - R / SEL	GB/Cable
096G039	368	25.1	10064.5	10064.5	100%IRM	CC - R	GB
096G039	377	50.4	21603.1	21603.1	100%IRM	CC - R	GB
093G039	383	12.5	5410.3	5410.3	100%IRM	CC - R	GB
096G039	461	48.3	21970.5	20872.0	50%TS@90%	CC - R / SEL	GB/Cable
096G039	473	52.8	23673.1	23199.6	20%TS@90%	CC - R / SEL	GB
093G039	477	36.3	17840.7	17662.3	10%TS@90%	CC - R / SEL	GB
093G039	556	3.2	1449.3	1449.3	100%IRM	CC	GB
093G039	567	40.1	14603.0	14603.0	100%IRM	CC - R	GB
093G039	764	52.3	5486.8	3919.0	100%IRM	SEL	GB
093G039	805	66.3	7176.4	4969.9	100%IRM	SEL	GB
							52.3 ha Balsam IU @ 75m3/ha
							66.3 ha Balsam IU @ 75m3/ha

093G040	455	251.4	81126.4	81126.4	100%IRM	CC - R	GB
096G040	457	30.1	10090.9	10090.9	100%IRM	CC - R	GB
093G040	478	55.7	25091.5	25091.5	100%IRM	CC - R	GB
093G040	525	34.8	6788.3	6788.3	100%IRM	CC - R	GB
093G040	537	63.2	24381.8	24381.8	100%IRM	CC - R	GB
093G040	550	35.0	17625.5	17625.5	100%IRM	CC - R	GB
093G040	762	24.9	134.6	1865.3	100%IRM	SEL	GB
							24.9 ha Balsam IU @ 75m3/ha

093G028	585	24.0	5970.6	5970.6	100%IRM	CC - R	GB
093G028	591	57.3	17667.7	17667.7	100%IRM	CC - R	GB
093G028	604	14.2	2687.2	2687.2	100%IRM	CC - R	GB
093G028	615	19.1	5233.9	5233.9	100%IRM	CC - R	GB
093G028	650	29.4	8703.0	8485.4	10%PR@75%	CC - R / SEL	GB
093G028	663	32.3	8656.8	8224.0	20%PR@75%	CC - R / SEL	GB
093G028	740	23.0	6443.2	6443.2	100%IRM	CC - R	GB

093G029	584	42.8	11305.8	11305.8	100%IRM	CC - R	GB
093G029	634	27.2	8231.2	8231.2	100%IRM	CC - R	GB
093G029	637	60.9	25755.0	25755.0	100%IRM	CC - R	GB
093G029	649	35.4	10545.3	10545.3	100%IRM	CC - R	GB
093G029	655	24.2	6654.1	6155.0	30%PR@75%	CC - R / SEL	GB
093G029	657	29.9	8231.7	8231.7	100%IRM	CC - R	GB
093G029	670	56.5	17994.7	17994.7	100%IRM	CC - R	GB
093G029	671	19.7	4033.5	4033.5	100%IRM	CC - R	GB
093G029	672	30.6	9664.0	9664.0	100%IRM	CC - R	GB
093G029	673	46.9	13234.2	13234.2	100%IRM	CC - R	GB
093G029	674	37.1	11626.3	11626.3	100%IRM	CC - R	GB
093G029	676	35.4	7336.0	7336.0	100%IRM	CC - R	GB
093G029	678	32.1	9925.8	9925.8	100%IRM	CC - R	GB
093G029	679	45.0	9749.7	9749.7	100%IRM	CC - R	GB
093G029	688	36.4	12788.6	12788.6	100%IRM	CC - R	GB
093G029	690	38.4	11662.3	11662.3	100%IRM	CC - R	GB
093G029	696	38.2	11821.5	11821.5	100%IRM	CC - R	GB
093G029	697	48.1	13953.9	13953.9	100%IRM	CC - R	GB
093G029	698	49.4	14142.5	14142.5	100%IRM	CC - R	GB
093G029	699	50.9	14913.5	14913.5	100%IRM	CC - R	GB
093G029	703	46.6	16385.9	16385.9	100%IRM	CC - R	GB
093G029	708	25.0	8329.2	8329.2	100%IRM	CC - R	GB
093G029	739	60.5	19020.6	19020.6	100%IRM	CC - R	GB
093G029	742	35.1	9695.8	9695.8	100%IRM	CC - R	GB
093G029	743	49.3	8073.1	3694.8	100%IRM	SEL	GB
093G029	751	34.6	6454.2	6454.2	100%IRM	CC - R	GB

49.3 ha Balsam IU @ 75m3/ha

093G030	574	47.6	16409.6	16409.6	100%IRM	CC - R	GB/Cable
093G030	579	51.2	20777.6	20777.6	100%IRM	CC - R	GB
093G030	595	7.7	2730.5	2047.9	100%PR@75%	SEL	GB
093G030	601	20.6	8684.2	6513.2	100%PR@75%	SEL	GB
093G030	602	45.4	18381.5	18381.5	100%IRM	CC - R	GB
093G030	612	44.1	15539.5	14762.5	20%PR@75%	CC - R / SEL	GB
093G030	614	33.4	12893.4	12893.4	100%IRM	CC - R	GB
093G030	622	14.4	5683.9	4262.9	100%PR@75%	SEL	GB
093G030	633	50.7	19059.1	19059.1	100%IRM	CC - R	GB
093G030	638	12.9	4847.1	3635.3	100%PR@75%	SEL	GB
093G030	641	38.3	11938.5	11938.5	100%IRM	CC - R	GB
093G030	737	63.4	23008.8	23008.8	100%IRM	CC - R	GB

093G019	710	42.4	12495.4	12495.4	100%IRM	CC - R	GB
093G019	711	47.7	15857.7	15857.7	100%IRM	CC - R	GB
093G019	715	55.8	15711.4	15711.4	100%IRM	CC - R	GB
093G019	721	30.1	8628.6	8628.6	100%IRM	CC - R	GB
093G019	722	61.5	18461.9	18092.7	20%TS@90%	CC - R	GB/Cable
093G019	727	27.7	9894.0	9894.0	100%IRM	CC - R	GB
093G019	728	28.6	9392.0	9298.1	10%TS@90%	CC - R	GB
093G019	730	36.3	12932.6	12932.6	100%IRM	CC - R	GB
093G019	734	22.1	5720.0	5720.0	100%IRM	CC - R	GB
093G019	735	48.8	17498.3	17498.3	100%IRM	CC - R	GB

4129.3	1307781.0	1288493.9
		1262724.0

2% Reduction for WTPs

Note: CC - R = Clearcut with Reserves, CC = Clearcut, SEL = Selection, Com Thin = Commercial thinning

GB = Ground Based Skidding, Cable = Cable logging, Heli = Helicopter logging

IRM = Integrated Resource Management, TS= Terrain Stability classes IV and V, PR = Partial Retention

Operability Zone Adjustment (%) describes factors that were used to reduce block volumes for TS and PR concerns. For example:

- (i) 80%TS@90% indicates that 80% of the blocks has TS features and 90% of the volume is removed in that part of the block
- (ii) 20%PR@75% indicates that 20% of the block has PR features and 75% of the volume is removed in that part of the block

Table 2: Harvest Schedule

PERIOD 4 (January 1, 2015 to December 31, 2019)									
Map Sheet	CP	Blk	Gross Area (ha)	Gross Volume (m3)	Net Volume (m3)	Operability Zone Adjustment (%)	Silviculture System	Harvest Method	Comments
093G048		69	43.2	17762.6	17762.6	100%IRM	CC - R	GB	
093G048		80	31.7	9798.6	9798.6	100%IRM	CC - R	GB	
093G048		81	5.5	2156.8	2156.8	100%IRM	CC	GB	
093G048		106	37.1	12420.4	12172.0	20%TS@90%	CC - R / SEL	GB	
093G048		137	46.9	17252.4	17252.4	100%IRM	CC - R	GB	
093G048		138	8.2	2375.3	2137.8	100%TS@90%	SEL	GB	
093G048		145	31.5	9322.3	8483.3	90%TS@90%	SEL	GB	
093G048		153	35.5	11705.2	11705.2	100%IRM	CC - R	GB	
093G048		164	19.2	4780.6	4780.6	100%IRM	CC - R	GB	
093G048		186	40.9	13552.3	13552.3	100%IRM	CC - R	GB	
093G048		191	64.4	21054.6	21054.6	100%IRM	CC - R	GB/Cable	
093G048		194	43.8	15507.0	15507.0	100%IRM	CC - R	GB	
093G048		208	12.3	3697.0	3697.0	100%IRM	CC - R	GB	
093G048		240	40.4	11845.4	11845.4	100%IRM	CC - R	GB	
093G048		248	52.7	14200.0	14200.0	100%IRM	CC - R	GB	
093G048		249	34.8	10839.7	10839.7	100%IRM	CC - R	GB	
093G048		273	34.8	6378.9	6378.9	100%IRM	CC - R	GB	Deciduous block
093G048		292	12.5	4014.0	4014.0	100%IRM	CC - R	GB	
093G048		298	44.4	12347.9	12100.9	20%TS@90%	CC - R / SEL	GB	
093G048		767	30.0	9774.2	9774.2	100%IRM	CC - R	GB	
093G048		769	62.2	19359.4	18197.8	60%TS@90%	CC - R / SEL	GB	
093G048		775	36.5	13085.2	13085.2	100%IRM	CC - R	GB	
093G048		785	40.9	13228.6	13228.6	100%IRM	CC - R	GB	
093G048		788	62.3	17347.5	17000.6	20%TS@90%	CC - R / SEL	GB	
093G048		832	33.5	8759.1	8759.1	100%IRM	CC - R	GB	

093G049	30	30.1	11249.9	11249.9	100%IRM	CC - R	GB
093G049	36	44.5	15939.6	15939.6	100%IRM	CC - R	GB
093G049	50	9.5	3603.7	3603.7	100%IRM	CC	GB
093G049	58	13.9	4211.0	4211.0	100%IRM	CC - R	GB
093G049	60	40.3	14164.9	14164.9	100%IRM	CC - R	GB
093G049	78	9.3	2726.9	2726.9	100%IRM	CC	GB
093G049	98	19.2	6489.8	6489.8	100%IRM	CC - R	Cable
093G049	107	39.9	14367.0	14367.0	100%IRM	CC - R	GB
093G049	127	62.6	20505.0	20505.0	100%IRM	CC - R	GB/Cable
093G049	143	5.7	2256.4	2256.4	100%IRM	CC	GB
093G049	147	25.0	4806.8	4566.5	50%TS@90%	CC - R / SEL	GB/Cable
093G049	155	33.2	7509.5	7509.5	100%IRM	CC - R	GB
093G049	162	21.1	7633.8	7633.8	100%IRM	CC - R	GB
093G049	174	40.6	11981.7	11981.7	100%IRM	CC - R	GB
093G049	185	55.5	15738.9	15424.1	20%TS@90%	CC - R / SEL	Cable
093G049	205	35.2	9917.9	9124.5	80%TS@90%	CC - R / SEL	GB/Cable
093G049	207	51.3	19735.6	19735.6	100%IRM	CC - R	GB
093G049	216	35.4	11891.6	11891.6	100%IRM	CC - R	GB
093G049	238	33.4	11682.0	11682.0	100%IRM	CC - R	GB
093G049	278	14.6	4914.6	4914.6	100%IRM	CC - R	GB
093G049	283	12.8	4348.1	4348.1	100%IRM	CC - R	GB
093G049	296	61.7	17498.1	17498.1	100%IRM	CC - R	GB
093G049	782	34.7	10062.0	10062.0	100%IRM	CC - R	GB
093G049	794	30.4	9944.6	9944.6	100%IRM	CC - R	GB
093G049	796	12.6	4136.8	3723.1	100%TS@90%	SEL	GB/Cable

095G050	8	18.4	6310.4	6310.4	100%IRM	CC - R	GB
095G050	11	22.3	5239.4	5239.4	100%IRM	CC - R	GB
093G050	13	38.5	11169.7	11169.7	100%IRM	CC - R	GB
093G050	32	30.7	10518.1	10518.1	100%IRM	CC - R	GB
093G050	53	38.3	16628.6	16628.6	100%IRM	CC - R	GB
093G050	64	12.2	5256.2	5256.2	100%IRM	CC - R	GB
093G050	124	62.8	20982.6	20982.6	100%IRM	CC - R	GB
093G050	178	34.7	11138.7	11138.7	100%IRM	CC - R	GB
093G050	188	28.1	9859.8	9859.8	100%IRM	CC - R	GB
093G050	195	38.0	11698.0	11464.0	20%TS@90%	CC - R / SEL	GB
093G050	237	33.4	13870.3	13870.3	100%IRM	CC - R	GB
093G050	246	45.3	20092.4	20092.4	100%IRM	CC - R	GB
093G050	271	43.3	19182.0	19182.0	100%IRM	CC - R	GB

093G038	320	18.3	1441.2	1441.2	100%IRM	CC - R	GB
093G038	322	41.0	13489.7	13489.7	100%IRM	CC - R	GB
093G038	327	60.7	24797.1	24797.1	100%IRM	CC - R	GB
093G038	390	13.4	4062.1	4062.1	100%IRM	CC - R	GB
093G038	405	32.2	10847.2	10847.2	100%IRM	CC - R	GB
093G038	419	17.8	6414.5	6414.5	100%IRM	CC - R	GB
093G038	432	38.5	12045.5	12045.5	100%IRM	CC - R	GB
093G038	437	38.5	13254.5	9940.9	100%PR@75%	SEL	GB
093G038	445	29.9	7355.4	7061.2	40%TS@90%	CC - R / SEL	GB/Cable
093G038	499	52.0	18058.7	18058.7	100%IRM	CC - R	GB
093G038	502	38.9	14025.3	14025.3	100%IRM	CC - R	GB
093G038	524	35.0	11214.7	11214.7	100%IRM	CC - R	GB
093G038	532	47.8	14846.0	14474.9	10%PR@75%	CC - R / SEL	GB
093G038	797	29.8	11195.3	11195.3	100%IRM	CC - R	GB
093G038	799	32.4	11771.7	11771.7	100%IRM	CC - R	GB
093G038	810	18.2	3221.7	3221.7	100%IRM	CC - R	GB
093G038	814	43.4	14832.0	14832.0	100%IRM	CC - R	GB
093G038	979	43.4	5902.3	3251.5	100%IRM	SEL	GB

43.4 ha Balsam IU @ 75m3/ha

093G039	316	31.3	9201.2	9201.2	100%IRM	CC - R	GB
093G039	331	34.0	9109.1	9109.1	100%IRM	CC - R	GB
093G039	349	42.0	11511.6	11511.6	100%IRM	CC - R	GB
093G039	352	10.2	4191.5	4191.5	100%IRM	CC - R	GB
093G039	371	9.8	4381.4	4381.4	100%IRM	CC	GB
093G039	394	30.1	12238.5	12238.5	100%IRM	CC - R	GB
093G039	415	45.7	18268.3	16441.5	100%TS@90%	SEL	GB
093G039	420	22.6	8780.9	8780.9	100%IRM	CC - R	GB
096G039	452	32.3	13918.8	13918.8	100%IRM	CC - R	GB
093G039	480	28.6	12786.4	12786.4	100%IRM	CC - R	GB
093G039	485	30.8	12929.5	12800.2	10%TS@90%	CC - R / SEL	GB/Cable
093G039	492	12.0	4948.9	4948.9	100%IRM	CC - R	GB
093G039	500	8.3	3373.1	3373.1	100%IRM	CC	GB
093G039	504	8.6	3967.8	3967.8	100%IRM	CC	GB
093G039	516	25.8	9479.7	9479.7	100%IRM	CC - R	GB
096G039	517	26.1	9948.3	9948.3	100%IRM	CC - R	GB
093G039	530	21.8	11497.9	11497.9	100%IRM	CC - R	GB
093G039	531	44.0	15883.0	15883.0	100%IRM	CC - R	GB
093G039	542	8.8	3218.6	2928.9	90%TS@90%	SEL	Cable
093G039	565	29.0	2616.3	2616.3	100%IRM	CC - R	GB
093G039	765	20.9	2316.5	1565.5	100%IRM	SEL	GB
093G039	981	46.6	2159.4	3494.9	100%IRM	SEL	GB
093G039	982	47.3	1025.8	3549.9	100%IRM	SEL	GB

20.9 ha Balsam IU @ 75m3/ha

46.6 ha Balsam IU @ 75m3/ha

47.3 ha Balsam IU @ 75m3/ha

093G040	359	49.7	18458.0	18458.0	100%IRM	CC - R	GB
093G040	389	27.8	9530.4	9530.4	100%IRM	CC - R	GB
093G040	396	135.1	38400.4	36096.4	60%TS@90%	CC - R / SEL	GB
093G040	475	27.8	11738.8	11738.8	100%IRM	CC - R	GB
093G040	494	49.6	18971.8	18971.8	100%IRM	CC - R	GB
093G040	535	41.4	16506.5	16176.4	20%TS@90%	CC - R / SEL	GB
093G040	557	35.7	13264.6	10611.7	80%PR@75%	CC - R / SEL	GB
093G028	573	60.7	16455.7	16455.7	100%IRM	CC - R	GB
093G029	568	43.0	14351.1	14351.1	100%IRM	CC - R	GB
093G029	605	4.4	1742.9	1708.0	20%TS@90%	CC - R / SEL	GB
093G029	628	61.2	21750.8	21750.8	100%IRM	CC - R	GB
093G029	687	37.5	11414.2	11414.2	100%IRM	CC - R	GB
093G029	744	43.0	471.7	3227.1	100%IRM	SEL	GB
093G029	746	20.8	7888.1	7493.7	20%PR@75%	CC - R / SEL	GB
093G029	748	12.3	4346.5	3585.9	70%PR@75%	CC - R / SEL	GB
093G029	758	34.1	9469.4	9469.4	100%IRM	CC - R	GB
093G029	760	43.4	14651.8	14651.8	100%IRM	CC - R	GB
093G030	586	27.9	13025.9	13025.9	100%IRM	CC - R	GB
	4127.2	1320793.4	1306228.1				
			1280103.6				2% Reduction for WTPs

Note: CC - R = Clearcut with Reserves, CC = Clearcut, SEL = Selection, Com Thin = Commercial thinning

GB = Ground Based Skidding, Cable = Cable logging, Heli = Helicopter logging

IRM = Integrated Resource Management, TS= Terrain Stability classes IV and V, PR = Partial Retention

Operability Zone Adjustment (%) describes factors that were used to reduce block volumes for TS and PR concerns. For example:

- (i) 80%TS@90% indicates that 80% of the blocks has TS features and 90% of the volume is removed in that part of the block
- (ii) 20%PR@75% indicates that 20% of the block has PR features and 75% of the volume is removed in that part of the block

T.F.L. 53 20-Year Plan

APPENDIX II

Map 2 - Net Operable Landbase (1:50,000 scale)

(See Map Appended to the M.P. # 3 Report)

T.F.L. 53 20-Year Plan

APPENDIX III

Map 3 - 20 Year Development Plan (1:50,000 scale)

(See Map Appended to the M.P. # 3 Report)

T.F.L. 53 20-Year Plan

APPENDIX IV

Map 4 - Timber Quality (1:50,000 scale)

(See Map Appended to the M.P. # 3 Report)

T.F.L. 53 20-Year Plan

APPENDIX V

Map 5 - Harvest Methods (1:50,000 scale)

(See Map Appended to the M.P. # 3 Report)