FORT ST. JOHN PILOT PROJECT

FOREST OPERATIONS SCHEDULE

December 17th, 2004

Final Submission to the B.C. Ministry of Forests

1.0 INTRODUCTION

1.1 Objectives and Scope

The objective of the Forest Operation Schedule (FOS) is to identify areas proposed for timber harvesting and associated road construction activities within the Fort St. John Timber Supply Area.

The Fort St. John Pilot Project Regulation (FSJPPR) requires that a FOS must show a minimum of six years of proposed activities. This FOS includes activities to be carried out by B.C. Timber Sales, and activities on the following coniferous and deciduous forest tenures held by licencees:

Forest Licence (FL) A18154 and Pulpwood Agreement 12 (Canadian Forest Products Ltd.),

FL A60049 and FL A60050 (Louisiana-Pacific Canada Ltd.),

FL A60972 (Tembec Industries Inc.),

FL A59959 (Cameron River Logging Ltd.),

FL A56671 (Canadian Forest Products Ltd. & Dunne-za),

A more detailed description of the participants and the forestry tenures they hold is included in Appendix A.

This FOS covers new proposed harvesting and road construction activities scheduled between December 1st , 2004 and November 30th , 2010. The proposed activities of B.C. Timber Sales and all the major licencees in the Fort St. John T.S.A. are provided in this consolidated plan to facilitate analysis of all forestry operations relative to the SFMP, and provide a comprehensive overview of all activities for review and comment.

Notices that the FOS was available for public review and comment were published in local newspapers at the start of the public review period (Appendix B). This initial schedule was presented to government agencies, First Nations, stakeholders, and the general public in order to elicit comments regarding the proposed activities. The schedule was available for public review and comment from September 3rd, 2004 to November 4th, 2004, although comments received up to November 18th were also considered by the participants. Review and comments were requested to include concerns related specifically to the approximate block or road locations illustrated in the FOS, as well as adjacent areas within close proximity (e.g. +/- 200 metres) to the proposed activities.

Public comments received on the proposed operations were reviewed by the participants, and some modifications were made to the content of this final submission of the FOS. Other comments received did not directly impact the block or road's general location, but will be addressed during the preparation of Site Level Plans.

1.2 Description Of The Pilot Project

In June 1999 the BC government added Part 10.1 to the Forest Practices Code of BC Act to enable results-based pilot projects. The intent of the pilot projects was to test ways to improve the regulatory framework for forest practices while maintaining the same or higher levels of environmental standards.

Canadian Forest Products Ltd., Slocan Forest Products Ltd., Louisiana-Pacific Canada Ltd., and the Ministry of Forests Small Business Forest Enterprise Program prepared a detailed pilot project proposal that provided the basis for the Fort St. John Pilot Project Regulation. Beginning in 2000, the participants established a public advisory group (PAG) comprised of local people representing a variety of interests. The public advisory group reviewed the draft detailed project proposal and draft regulation, reviewed comments from the general public and provided advice to government on the suitability of the project. Cabinet accepted the proposal and a draft regulation late in 2001.

The Fort St. John Pilot Project Regulation (FSJPPR) required the establishment of a single strategic plan for the entire pilot project area, known as a Sustainable Forest Management Plan (SFMP). The FSJPPR required the SFMP to balance competing values and interests, and contain landscape level strategies and measurable performance indicators to assess the effectiveness of these strategies.

The participants prepared the SFMP with the guidance of a local public advisory group (PAG) and a Scientific and Technical Advisory Committee (STAC). The SFMP received the joint approval of the Regional Manager, Northern Interior Forest Region, Ministry of Forests and the Regional Director, Omineca-Peace Region, Ministry of Water, Land and Air Protection, effective April 1, 2004. After the Sustainable Forest Management Plan was approved, the participants are able to prepare and submit to the District Manager a Forest Operations Schedule (FOS), which is the operational plan showing overall proposed forest development.

The SFMP provides the broad strategic direction to forest operations carried out in the pilot project area, including the distribution and pattern of proposed timber harvesting and road construction outlined in this Forest Operations Schedule. All forest operations carried out under a FOS must be consistent with the Landscape Level Strategies and related performance indicator targets in the SFMP. The district manager will not formally approve the Forest Operations Schedule, but may withhold the authorization of specific operations.

2.0 MAPS AND OTHER INFORMATION INCLUDED IN THE FOS

2.1 Map Information

The Fort St. John TSA has been divided into 47 distinct Operating Areas to facilitate operational planning and mapping. Operating Area boundaries are based largely on natural topographic features, and were modified to follow Landscape Unit boundaries where practical.

The Tenure Overview Map (1:250,000 scale) shows the location of proposed harvesting and road construction in relation to range, trapping and guide tenures, as well as First Nations Reserves, private land and woodlots.

The Landscape Unit Boundaries Overview Map (1:250,000 scale) illustrates proposed activities in relation to Landscape Unit boundaries, as well as protected areas. Both 1:250,000 Overview Maps have the Operating Area boundaries, including the OA number and name to facilitate cross-references to the Operating Area maps.

More detailed 1:50,000 Operating Area maps are included for Operating Areas which have new proposed harvesting or road construction activities. These maps show the following information (FSJPP Regulation section references included in parentheses):

Forest Cover *(S.81 (1)(a))*: This is depicted by separate seral stage groupings for leading deciduous and coniferous stands, which correspond to categories included in the SFMP. Forest cover seral stages are distinguished as follows:

- Forests less than 40 years old
- Deciduous forests 40-100 years old
- Deciduous forests 101-120 years old
- Deciduous forests 121 + years old
- Coniferous forests 40-100 years old
- Coniferous forests 101-140 years old
- Coniferous forests 141 + years old

Topography *(S.81 (1)(b))*: This is displayed using 20 metre elevation contours.

Protected Areas *(S.81 (1)(c)(I-v))*: Includes parks, ecological reserves and other proposed and existing protected areas. Wildlife Habitat Areas for goats and bull trout, while fully considered during the development of the plan, are not displayed on the maps at the direction of WALP officials.

Connectivity Corridors *(S.81 (1)(c)(vi))*: The SFMP identifies special management requirements for the riparian and alpine corridors in the Graham River Operating Area. The Integrated Resource Plan (IRP) zones are therefore identified on the Graham Operating Area mapsheet. The SFMP also requires special management within 100 metres of the major river corridors to recognize the high value habitat in these areas. These Major River Corridors are identified in the legend on mapsheets where they occur.

Scenic Areas *(S.81 (1)(c)(vii)*: Known scenic areas are displayed on the maps, along with the corresponding visual inventory labels.

Fish Streams and Riparian Class of Streams *(S.81 (1)(c)(xi, xii)):* Known fish streams, as well as known riparian classifications are displayed on the maps. There are no known wetland or lake classifications in the Fort St. John T.S.A.

Public Utilities *(S.81 (1)(c)(vii)):* This includes transmission lines, pipelines and railways derived primarily from Trim data, which are displayed as double red line features, unless otherwise labeled in the map legends.

Roads and Major Crossing Structures *(S.81 (1)(e)(I-, iii) & S 81(1)(f)*: The approximate location of proposed roads to access cutblocks, and any proposed temporary or permanent bridges or major culverts are shown on the 1:50,000 maps. Similarly, existing roads and bridges derived from licencee sources are displayed, supplemented by Trim road data (grey lines) where needed. Currently deactivated roads are shown with grey borders to distinguish them from active existing roads, and known barriers to vehicle access, such as gates, are noted where they occur.

The proposed replacement or addition of bridges or major culverts *(S 81(1)(e)(ii, iv)* are not included on the maps, as a general strategy on the replacement of bridges and major culverts is included in Section 8.2 of the SFMP.

Proposed future deactivation of roads is not displayed on the maps. The SFMP identifies general deactivation measures, including the relative timing, that are used to meet deactivation objectives. These measures provide the flexibility needed to address uncertainty around identifying the specific timing of deactivation. The SFMP measures in Section 8.2 therefore removed the need to identify areas requiring future deactivation in the FOS *(S81 (1)(g)(I-iv))*

Cutblocks:

Proposed Cutblocks *(S.81 (1)(i))*- includes the approximate location of proposed cutblocks that were not approved in a previous Forest Development Plans (FDP), or approved blocks which have been significantly modified since being approved.

FDP Approved Cutblocks *(S.81 (1)(i))*- includes the approximate location of unlogged blocks that were approved in previous FDP's, and no changes are proposed to the blocks.

Authorized Cutblocks *(S.81 (1)(k))*- includes unlogged blocks that were approved in previous FDP's, and have already been fully approved for timber harvesting by the MOF District Manager. Currently there are no blocks that are the subject of a request for authorization (*(S.81 (1)(c)(j&k))*. Blocks that are likely to be the subject of a request for authorization prior to December 1, 2004 are noted in the comments section of Table 1.

Harvested Cutblocks *(S.81 (1)(c)(m))*- includes all authorized blocks, which have been logged, or are planned to have had harvesting commence prior to December 1st, the effective date of the Forest Operations Schedule. For BC Timber Sales, it also includes blocks that have been or will be sold prior to December 1st, 2004. Harvested areas that are classified as greened up in forest inventory data are also displayed on the map.

Blocks are planned as clearcuts or clearcuts with reserves, unless specifically shown as partial cuts on maps.

2.2 Table Information

Table 1 provides more detailed information on the specific attributes of blocks proposed for harvesting, and should be referenced in conjunction with the maps. Table 2 summarizes

additional block information to assist in determining consistency of the FOS with SFMP indicators.

The tables provides the following information:

Ownership: This is the preliminary ownership of cutblocks assigned to the pilot project participants. Ownership was determined on a number of criteria. The primary criteria was that if a block or portion thereof appeared in previous FDP's as belonging to a participant, it would normally continue to be their responsibility. As a result of Bill 28, which provides for the transfer of significant coniferous volumes to the BCTS from major licencees, other criteria were applied to meet BCTS needs to sell representative stands of coniferous timber. Historical BCTS operating areas were the second criteria used to assign new blocks. Additionally, in order to reflect the critical factors involved in reaching a timber profile that is representative of the overall profile being harvested, allowances are required to ensure the BCTS coniferous volumes have an average haul distance, average tree size, and representative proportions of height class 2 pine stands, remote areas, and cable harvesting ground.

For the purpose of this table, ownership has been defined as follows:

Slocan-LP OSB Corporation, who are responsible for the management of deciduous licences FL A-60049 and FL A-60050, as well as PA 12, are designated as having ownership of blocks assigned to these tenures. This ownership code is "SL" in the table.

BC Timber Sales are responsible for the management and subsequent public sale of both leading coniferous and leading deciduous stands. As AAC's are currently calculated on the basis of leading species (i.e. volumes from leading coniferous stands are charged to the coniferous AAC, and volumes from deciduous stands are currently charged to the deciduous AAC), BCTS ownership has been divided into leading coniferous stands (BCc) and leading deciduous stands (BCd).

Canfor (Ownership code "C") is responsible primarily for the management their replaceable coniferous Forest Licence A-18154.

Non-replaceable coniferous Forest Licences owned by Cameron River Logging (Ownership code "CR"), Tembec (Ownership code "T"), and the licence jointly owned by Canfor and Dunne-za Corporation (Ownership code "DZ") are also represented in the table.

FOS Block #: These are the unique block identifier numbers, which corresponds to the block numbers on the FOS maps. Blocks numbers are assigned as follows:

Where a preexisting designation of a block (or portion of a block, if the block was being amended) already existed in a previous FDP, this block number was brought over as it was. The exception to this is where, due to operating area changes, a block is now in a different operating area, in which case the block ID number was modified to facilitate easier location as well as simpler basic analysis relative to SFMP indicators. For example, blocks identifiers starting in "S", indicate either an approved or category I block from the previous FDP was at least partly included as an S-LP block in that document. Similarly, BCTS blocks carried over from previous FDP's show as TSL numbers followed by a 1 (e.g. A63403-1)

For new blocks, the block ID for all ownership codes is unique. The coding is based on the current operating area's 2-digit number, followed by a 3 digit unique sequence for that operating area. For example, block 01042 is in the Inga Lake Operating Area (i.e. OA 01), and the 042 last code is unique within that OA amongst all licencees.

O.A Map#: This refers to the Operating Area number, which corresponds to the 1:50,000 map numbers (e.g. O.A. Map #1 indicates Operating Area # 1, which is Inga Lake)

Leading Conifer or Deciduous- This distinguishes whether the volume in the block is predominately (>50%) coniferous ("C"), or predominately deciduous ("D").

Current Status: Refers to the approval status of the cutblock at the time of submission of this FOS. Proposed blocks are either new blocks not shown in previous FDP's, or Category I ("Information") blocks in previous FDP's which were not approved.

Proposed/FDP Approved blocks refer to blocks presented in this FOS which had portions of the block previously approved. In most cases these revised blocks are amending smaller fragmented approved blocks in order to achieve better timber utilization and meet other SFMP objectives. On the maps these blocks are not differentiated from the other proposed blocks.

BCG Map #: refers to BC mapsheet numbers. These are also shown on the 1:50000 maps.

LU: refers to the landscape unit in which the block is situated.

Forest Cover Type: This is the most common forest cover type polygon within the block boundary. This information provides an indication of the species composition and the age of the timber, as portrayed by the forest inventory.

Gross ha: This is the gross block area, including wildlife tree patches, for the block.

FDP Approved ha: This is the approximate hectares contained within the block that was approved in Category A blocks in a previous Forest Development Plan. This is provided for information purposes only, to indicate that all or portions of the blocks had been available for previous review and comment.

FOS New ha: This is the gross hectares, minus FDP Approved hectares. These areas were either not reviewed previously, or were in Category I (Information) blocks in previous FDP's, and were not subject to an approval request at that time.

Volumes: The estimated coniferous, deciduous, and total volumes were determined from the most accurate available sources. For authorized blocks, or blocks where cruise information is available, cruise data was used. Where blocks appeared in previous FDP's, volumes presented in those documents were normally used, unless more detailed ground, aerial reconnaissance, or detailed photo interpretation had been done. New blocks were assessed through photo interpretation supplemented in many cases by ground reconnaissance. Note that volume estimates pertain only to the estimated merchantable areas within the gross block area.

Summer and Winter Volumes (m3): These are Initial estimates based on ground reconnaissance or photo interpretation of the amount of timber that may be available in different seasons. The information is used to determine if the FOS has the potential to meet the needs of the manufacturing plants to deliver some volumes during the frost-free months.

Projected Reforestation Declaration: This is the estimated reforestation objective for each block, based on either signed or preliminary site level plans, or estimated species composition of the preexisting stand**.** Blocks are expected to be regenerated as coniferous blocks ("C"), deciduous blocks ("D"), or mixedwoods ("M"). For the purposes of this FOS, mixedwoods may include blocks where different distinct portions of the block are reforested to coniferous reforestation standards, and other portions of the same block to deciduous standards. Alternatively, mixedwoods may mean all or part of the block are reforested to standards which allow intimate mixtures of coniferous and deciduous in the same area.

Note that for all authorized and proposed blocks, the projected reforestation declaration is provided for information purposes only at this time. The regulatory requirement (S 81 (1)(k)) requires reforestation declarations for areas that have authorization requests submitted but unapproved, none of which exist as of the submission date.

Scenic Area: This identifies whether any part of the block falls within a known scenic area. For areas with known visual quality objectives, the predominate VQO objective code is displayed. Blocks not in scenic areas are shown as n/a in this column. Other blocks that may fall in a scenic area are coded are as follows:

P- dominant VQO is preservation.

R-dominant VQO is retention.

PR-dominant VQO is partial retention.

M-dominant VQO is modification.

MM-dominant VQO is maximum modification.

Y-n/a- block falls in a known scenic area, but no VQO has been established.

Pine h/c 2 ha: This refers to the approximate area of height class two pine forest cover type polygons included in the cutblock. This information allows an assessment of the ability of the FOS to achieve the timber profile indicators targets.

Graham OA Planned Harvest Year: This is the projected year of timber harvesting in the Graham Operating Area. The SFMP specifies an earliest harvest date for groupings of blocks in this Operating Area.

Cable Yarding ha: This is the estimated area of cable yarding (i.e. non-ground based yarding system) in coniferous stands, which is used to assess one of the timber harvesting strategy indicators.

Comments: This column provides additional clarification, such as identifying areas where block naming conventions may have changes, or to clarify whether previously approved blocks may been amalgamated.

3.0 SUMMARY OF SFMP INDICATORS IMPACTED BY THE FOS

Section 4 of the Sustainable Forest Management Plan outlines the landscape level strategies that provide the strategic direction to the plans and operations of the participants in the FSJ Pilot Project. These strategies have measurable performance indicators (Section 6 of the SFMP) that demonstrate the relative success of the strategies. While the SFMP is still in the initial implementation stages, some of these strategies are linked to the Forest Operations Schedule. In addition to the performance indicators related to these landscape level strategies, the FOS may also influence other indicators within the broader context of the SFMP.

Following is a summary of indicators requiring reporting or demonstration of FOS consistency with the SFM Plan. The indicators are grouped as they relate to landscape level strategies, or as they relate to other broader SFMP objectives.

3.1 Timber Harvesting Strategy Indicators:

Graham Harvest Timing *(S.6.18):*

Target Statement: *Harvesting will not commence prior to the planned harvest start date included in the SFMP for any cluster. Allowable variances exist for delaying the timing of the commencement of harvest to a later date for operational reasons, or for advancing the timing in order to improve access coordination with other industries.*

For the term of this FOS, the SFMP indicates harvesting should commence no sooner than the following dates:

Cluster 4: July 2003

Cluster 5 April, 2007

Cluster 6a: November 2008

Cluster 6b: November 2009

Cluster 6c: April 2010

Harvesting is only proposed for clusters 4,5, and 6a in this FOS. Table 1 notes the earliest planned harvest start dates for all blocks included in the East Graham Operating Area (OA # 11), as well as the cluster the block occurs in, which is noted in the comments section. The FOS is consistent with the SFMP, as all planned block harvest dates in this Operating Area are later than the earliest possible date to start harvesting.

Graham Merchantable Area (S 6.19)

Target Statement: *The cumulative merchantable hectares within blocks will be consistent with the estimated total harvest area, as measured at the end of each time period. Acceptable variances include harvesting 0-125% of the targeted ha.*

The SFMP notes that the current status of harvesting in the completed clusters 1,2, and 17 was 2,158 ha, and projected once Cluster 4 was completed, the projected harvest was 3,358 ha, which is within the acceptable range of harvesting for period 1.

In this FOS, Cluster 5 includes a gross area of an estimated gross area of 568 ha, and Cluster 6 of 755 ha. The total new planned ha (excluding Cluster 4 which was accounted for in the SFMP projections) is 1,323 ha. The target area for these two clusters was 749 ha for cluster 5 and 893 ha for cluster 6a, or 1,642 hectares combined.

The total proposed harvest is 219 hectares less than allocated in the SFMP, consequently the FOS is projected to be consistent with the intent of this indicator.

Graham Connectivity S. (6.20)

Target Statement: *No harvesting within the permanent alluvial and non-productive/non-commercial components of the connectivity corridors. An acceptable variance is recognized where permission is attained, in consultation with WALP, for minor harvesting to occur that may enhance wildlife habitats by opening dense stands, and will not negatively impact other wildlife objectives.*

The SFMP notes the primary areas of concern are the riparian corridors and the associated meadows, and the non-productive alpine areas.

The digital coverage's of these two primary connectivity corridors included in the Graham IRM Plan were added to the FOS's Graham River Operating Area 1:50,000 map. Preliminary blocks proposed in the Graham IRM for clusters 5 and 6a were reduced in size prior to inclusion in the FOS to avoid infringing on the Graham riparian corridors. As noted in the SFMP, following consultation with WALP officials some blocks in the Meadow Creek area received previous approval for minor harvesting activity within the riparian corridor, in order to enhance wildlife habitat.

Modification of the conceptual blocks included in the Graham IRM plan to meet this objective has resulted in the FOS being consistent with this indicator in the SFMP.

M.K.M.A (S 6.21)

Target Statement: *A minimum of 1 drainage plan submitted no later than October 2007.*

The MKMA requires the establishment of at least 1 landscape unit objective before timber harvesting can be approved, unless the harvesting was previously approved (grand parented) under a previous forest development plan. The blocks and roads included in the FOS that overlap the MKMA have been approved in previous FDP's prior to the establishment of the MK area, and are approved under grandparenting provisions of the Act. The grandparented blocks are 20015, 20016, 20007, 20008, 20027, and 20060, in the Cypress Creek Operating Area.

No new harvesting is proposed in the MKMA for the duration of the FOS as no drainage plan has been submitted.

Summer and Fall Volumes (S. 6.48)

Target*: A minimum of 150,000 m3 coniferous delivered to FSJ sawmill and 185,000 m3 delivered to the deciduous manufacturing facilities between May 1st and November 30th.* The target volumes assume planned production levels are achieved at the local mills, once they are fully operational. Commencing in 2004, allowable variances for minimum deliveries will be proportional to the number of actual operating weeks, divided by the normal fifty operating weeks of the facilities per year.

Estimates of the amount of volume that could potentially be harvested and/or hauled from cutblocks to the deciduous and coniferous processing plants in the TSA were made from

photo interpretation of summer logging chance, with consideration of the potential for suitable summer hauling conditions. This estimated indicates a potential to haul approximately 22% of the total volume from coniferous blocks, and 32% from deciduous blocks, provided roads are constructed to adequate standards to allow harvesting. The FOS is consistent with providing the opportunity to meet this indicators target, as this percentage exceeds the minimum percentages of summer and fall deliveries relative to total deliveries for both coniferous and deciduous plants. The planning and management of summer and fall harvesting activities will need to receive significant attention, however, as opportunities to deliver these volume during this time frame are very limited.

Harvest Systems (Section 6.49)

Target Statement: *95% of the coniferous harvested area will utilize conventional ground based harvesting equipment An acceptable variance range will be 85% to 99% of the harvest area utilizing conventional ground based harvesting systems.*

The implementation portion of the indicator notes that no less than 85% of the coniferous volume shown in long term plans such as FDP's and FOS's should utilize convention ground based harvesting equipment.

Using detailed site level plans, or photo interpretation where site plans were not available, estimates were made of the number of hectares of cable yarding within each coniferous leading block in the FOS. Based on this estimate, its expected that approximately 609 hectares will require cable harvesting (2% of the merchantable coniferous leading area), with the remaining 98% of the area available for conventional rubber tired or tracked ground based skidding. While this percentage may increase as more detailed site assessments are completed, the estimates indicate the FOS is consistent with achieving the targets for this indicator.

Coordination (Section 6.50)

Target Statement: *All FOS's will be jointly prepared by active participants.*

This FOS incorporates the activities of all participants, and will encourage coordinated development of timber resources. The FOS is therefore consistent with this indicator.

Timber Profile (Section 6.52)

Target Statement: *November 15th, 2001 - March 31st, 2006: 8% or more of the total cutblock area of coniferous blocks harvested will be in height class two pine inventory types.*

Subsequent 5 year periods: 8% or more of the total cutblock area of coniferous blocks harvested will be in height class two pine inventory types. A variance is provided in the SFMP to allow some flexibility to address logistical issues and external factors, recognizing the problems associated with balancing these factors over a relatively short time frame. The variance allows not less than 5% of the total cutblock area of coniferous blocks harvested in each time period will be from height class two pine inventory types.

Where height class 2 pine stands inventory polygons occur in blocks included in the FOS, the area of the contributing polygons was digitized and recorded. These estimates show 3215 hectares of height class 2 pine, or 8.6% of the gross area of the coniferous blocks included in the FOS. The FOS is therefore consistent with the timber profile indicator.

3.2 Road Access Management Strategy Indicators

Recreation Opportunity Spectrum (Section 6.45)

Target: *Maintain the primitive level ROS percentage at 15% (1996 levels) for the B-H-C RMZ as proposed by the LRMP.*

Retain a minimum of 50% of area by RMZ as semi-primitive non-motorized ROS class for the Graham North, Graham South and Crying Girl RMZ

Table 3: Baseline Condition – 1996 ROS Inventory

Resource Management Zones	ROS Class - 1996											
	Primitive		Semi-Primitive Non Motorized		Semi-Primitive Motorized		Roaded		Urban/ Agriculture		Total ha	Total %
	ha	%	ha	%	ha	%	ha	%	ha	%		
Besa Halfway Chowade	65,839	15.2%	269,453	62.2%	97,323	22.5%	269	0.1%		0.0%	432,884	100.0%
Crying Girl		0.0%	38,984	80.7%	7,020	14.5%		0.0%	2,287	4.7%	48,291	100.0%
Graham North RMZ		0.0%	22,947	76.0%	7,255	24.0%		0.0%		0.0%	30,202	100.0%
Graham-South RMZ		0.0%	30,067	87.0%	4,492	13.0%		0.0%		0.0%	34,559	100.0%
Grand Total	65,839	12.1%	361,451	66.2%	116,090	21.3%	269	0.0%	2,287	0.4%	545,936	100.0%

Table 4: FOS Condition – Updated to Incorporate FOS Development

Resource Management Zone	ROS Class 2003											
	Primitive		Semi Primitive Non-Motorized		Semi Primitive Motorized		Roaded		Urban/ Agriculture		Total ha	Total %
	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%		
Besa Halfway Chowade	65,839	15.2%	267,508	61.8%	99,269	22.9%	269	0.1%		0.0%	432,884	100.0%
Crying Girl		0.0%	30,415	63.0%	15,589	32.3%		0.0%	2,287	4.7%	48,291	100.0%
Graham North		0.0%	22,947	76.0%	7,255	24.0%		0.0%		0.0%	30,202	100.0%
Graham-South		0.0%	19,940	57.7%	14,619	42.3%		0.0%		0.0%	34,559	100.0%
Grand Total	65,839	12.1%	344,488	63.1%	133,056	24.4%	269	0.0%	2,287	0.4%	545,939	100.0%

The above two tables indicate the baseline target and the condition after the FOS development. The FOS has developments proposed in the Crying Girl and the Graham South RMZ's. The development is consistent with the SFMP ROS targets.

3.3 Patch Size, Seral Stage Distribution, and Adjacency Strategy Indicators

Seral Stages (Section 6.2)

Target Statement: *The minimum proportion (%) of late seral forest by NDU by LU as identified in SFMP Tables 12, 13, and 14 will be met within the identified timelines.*

Acceptable Variances:

Harvesting can continue in late seral stands if at least 50% of the target is met and the time to reach the full target is not delayed by more than 10 years.

Allowable variances may occur where large natural disturbances occur within Landscape Units with a Low or Intermediate Forest Management Intensity the minimum proportion of

late seral may decline to the lower limit of the natural range of variation to relieve salvage pressures and allow young natural forests to persist on the landscape.

A variance of up to 50 ha in each NDU/LU combination is acceptable.

Table 5: Boreal Plains Deciduous and FOS Seral Stage and Targets

NDU	NDU Sub	LU	<40				40-100				101-120				121+							Years to Meet	Total ha
			2004		2010		2004		2010		2004		2010		2004			2010					
			Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Surplus / (Deficit)	Area (ha)	%	Surplus / (Deficit)	Target		
Boreal Plains Alluvial	Alluvial	Kahntah	14	0.4%	14	0.4%	2,578	79.0%	2,578	79.0%	276	8.4%	276	8.4%	395	12.1%	(94)	395	12.1%	(94)	15%	30	3,262
		Tommy Lakes	444	6.4%	328	4.7%	4,143	59.6%	4,205	60.5%	626	9.0%	619	8.9%	1,734	25.0%	1,039	1,796	25.9%	1,101	10%	-	6,947
		Trutch	269	4.3%	118	1.9%	3,229	51.5%	3,279	52.3%	566	9.0%	544	8.7%	2,210	35.2%	1,269	2,333	37.2%	1,392	15%	-	6,274
	Alluvial Total		727	4.4%	460	2.8%	9,950	60.4%	10,061	61.0%	1,468	8.9%	1,438	8.7%	4,339	26.3%		4,524	27.4%				16,483
Boreal Plains Alluvial Total			727	4.4%	460	2.8%	9,950	60.4%	10,061	61.0%	1,468	8.9%	1,438	8.7%	4,339	26.3%		4,524	27.4%				16,483
Boreal Plains	Upland	Blueberry	20,383	11.2%	35,083	19.2%	113,187	62.1%	91,935	50.4%	33,094	18.1%	29,767	16.3%	15,737	8.6%	(2,503)	25,614	14.0%	7,374	10%	-	182,400
		Halfway	2,336	11.1%	2,650	12.6%	11,329	54.0%	8,957	42.7%	3,834	18.3%	4,947	23.6%	3,498	16.7%	1,399	4,442	21.2%	2,343	10%	-	20,996
		Kahntah	1,317	1.6%	1,376	1.6%	67,295	80.5%	67,209	80.4%	8,983	10.7%	8,957	10.7%	6,045	7.2%	(6,501)	6,098	7.3%	(6,448)	15%	50	83,640
		Kobes	3,223	7.3%	7,838	17.7%	11,685	26.3%	5,961	13.4%	17,345	39.1%	9,113	20.5%	12,127	27.3%	7,689	21,469	48.4%	17,031	10%	-	44,380
		Lower Beatton	5,509	8.5%	7,079	10.9%	43,032	66.5%	39,197	60.6%	10,043	15.5%	11,377	17.6%	6,140	9.5%	(3,568)	7,070	10.9%	(2,638)	15%	40	64,723
		Milligan	985	1.9%	1,103	2.1%	46,055	89.3%	45,488	88.2%	1,656	3.2%	1,357	2.6%	2,865	5.6%	(4,869)	3,613	7.0%	(4,121)	15%	90	51,561
		Tommy Lakes	3,247	3.8%	4,359	5.1%	56,398	66.6%	53,382	63.0%	10,368	12.2%	10,037	11.9%	14,666	17.3%	6,198	16,901	20.0%	8,433	10%	-	84,679
		Trutch	772	1.4%	500	0.9%	41,353	73.6%	38,135	67.9%	4,761	8.5%	7,348	13.1%	9,273	16.5%	849	10,177	18.1%	1,753	15%	40	56,159
	Upland Total		37,770	6.4%	59,988	10.2%	390,334	66.3%	350,263	59.5%	90,083	15.3%	82,902	14.1%	70,350	12.0%		95,384	16.2%				588,537
Boreal Plains Total			37,770	6.4%	59,988	10.2%	390,334	66.3%	350,263	59.5%	90,083	15.3%	82,902	14.1%	70,350	12.0%		95,384	16.2%				588,537

Table 6: Boreal Plains Conifer Current and FOS Seral Stage and Targets

NDU	NDU Sub	LU	<40				40-100				101-140				141+							Years to Meet	Total ha
			2004		2010		2004		2010		2004		2010		2004			2010					
			Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Surplus / (Deficit)	Area (ha)	%	Surplus / (Deficit)	Target		
Boreal Plains Alluvial	Alluvial	Kahntah	858	24.8%	949	27.4%	514	14.9%	514	14.9%	622	18.0%	622	18.0%	1,466	42.4%	(281)	1,375	39.7%	(372)	50.5%	30	3,460
		Tommy Lakes	726	9.2%	723	9.2%	1,968	25.1%	1,938	24.7%	3,322	42.3%	2,781	35.4%	1,838	23.4%	(1,618)	2,412	30.7%	(1,044)	44.0%	40	7,854
		Trutch	622	11.0%	581	10.2%	1,552	27.4%	1,463	25.8%	1,668	29.4%	1,455	25.7%	1,829	32.2%	(1,036)	2,172	38.3%	(692)	50.5%	40	5,672
	Alluvial Total		2,206	13.0%	2,253	13.3%	4,034	23.8%	3,915	23.0%	5,612	33.0%	4,858	28.6%	5,133	30.2%		5,959	35.1%				16,985
Boreal Plains Alluvial Total			2,206	13.0%	2,253	13.3%	4,034	23.8%	3,915	23.0%	5,612	33.0%	4,858	28.6%	5,133	30.2%		5,959	35.1%				16,985
Boreal Plains	Upland	Blueberry	60,045	18.8%	70,927	22.2%	138,201	43.4%	113,271	35.5%	91,067	28.6%	91,925	28.8%	29,479	9.2%	(24,716)	42,670	13.4%	(11,525)	17.0%	20	318,791
		Halfway	8,989	6.6%	11,559	8.4%	39,639	29.0%	33,047	24.2%	48,734	35.6%	43,700	31.9%	39,456	28.8%	16,197	48,512	35.5%	25,253	17.0%	-	136,818
		Kahntah	30,252	21.1%	31,732	22.1%	43,188	30.1%	42,198	29.4%	35,880	25.0%	36,683	25.6%	33,979	23.7%	(1,846)	32,686	22.8%	(3,139)	25.0%	20	143,299
		Kobes	10,224	14.4%	14,176	19.9%	9,255	13.0%	3,950	5.5%	30,449	42.8%	25,455	35.8%	21,271	29.9%	9,167	27,618	38.8%	15,514	17.0%	-	71,199
		Lower Beatton	4,150	14.4%	4,504	15.7%	9,857	34.3%	7,933	27.6%	13,664	47.6%	14,841	51.7%	1,047	3.6%	(6,132)	1,438	5.0%	(5,741)	25.0%	40	28,717
		Milligan	23,491	22.2%	23,628	22.3%	51,369	48.4%	50,209	47.3%	17,339	16.4%	17,809	16.8%	13,841	13.1%	(12,669)	14,396	13.6%	(12,115)	25.0%	40	106,041
		Tommy Lakes	32,001	8.5%	38,757	10.3%	150,910	40.1%	129,397	34.4%	127,872	34.0%	129,304	34.4%	65,289	17.4%	1,356	78,613	20.9%	14,681	17.0%	30	376,071
		Trutch	7,338	2.3%	5,036	1.6%	142,534	45.3%	125,398	39.8%	112,023	35.6%	113,596	36.1%	52,792	16.8%	(25,880)	70,656	22.5%	(8,016)	25.0%	40	314,687
	Upland Total		176,490	11.8%	200,319	13.4%	584,953	39.1%	505,403	33.8%	477,027	31.9%	473,312	31.6%	257,153	17.2%		316,589	21.2%				1,495,624
Boreal Plains Total			176,490	11.8%	200,319	13.4%	584,953	39.1%	505,403	33.8%	477,027	31.9%	473,312	31.6%	257,153	17.2%		316,589	21.2%				1,495,624

Table 7: Boreal Foothills, Northern Boreal Mountains and Omineca Current and FOS Seral Stage and Targets

			<40				40-100				101-140				141+								Total ha
NDU	NDU Sub	LU	2004		2010		2004		2010		2004		2010		2004			2010				Years to Meet	
			Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Surplus / (Deficit)	Area (ha)	%	Surplus / (Deficit)	Target		
Boreal Foothills	Mountain	Crying Girl	2,040	4.9%	2,948	7.1%	11,194	26.9%	8,472	20.3%	13,866	33.3%	14,592	35.0%	14,552	34.9%	(2,525)	15,640	37.5%	(1,437)	41.0%	30	41,651
		Graham	1,073	1.1%	1,111	1.1%	27,940	28.4%	21,590	21.9%	29,977	30.4%	33,652	34.2%	39,493	40.1%	(8,763)	42,129	42.8%	(6,127)	49.0%	50	98,482
		Halfway	18	0.1%	11	0.1%	2,707	22.8%	2,230	18.8%	4,624	39.0%	4,086	34.5%	4,504	38.0%	592	5,525	46.6%	1,614	33.0%	-	11,853
	Mountain Total		3,131	2.1%	4,070	2.7%	41,840	27.5%	32,292	21.2%	48,467	31.9%	52,330	34.4%	58,549	38.5%		63,295	41.6%				151,987
	Valley	Crying Girl	1,912	9.4%	3,350	16.4%	6,268	30.7%	3,756	18.4%	6,574	32.2%	7,566	37.1%	5,662	27.7%	(769)	5,744	28.1%	(687)	31.5%	30	20,416
		Graham	95	0.7%	328	2.3%	4,785	33.2%	3,670	25.5%	6,670	46.3%	6,902	48.0%	2,840	19.7%	(2,916)	3,491	24.3%	(2,266)	40.0%	30	14,390
		Halfway	0	0.0%	0	0.0%	367	23.6%	328	21.1%	680	43.7%	548	35.3%	507	32.6%	149	677	43.6%	320	23.0%	-	1,554
	Valley Total		2,008	5.5%	3,679	10.1%	11,420	31.4%	7,755	21.3%	13,923	38.3%	15,015	41.3%	9,009	24.8%		9,912	27.3%				36,360
Boreal Foothills Total			5,139	2.7%	7,749	4.1%	53,260	28.3%	40,047	21.3%	62,390	33.1%	67,345	35.8%	67,558	35.9%		73,206	38.9%				188,347
Northern Boreal Mountains		Graham	1,336	9.3%	1,113	7.8%	3,158	22.0%	1,863	13.0%	5,864	40.9%	4,815	33.6%	3,989	27.8%	(4,618)	6,555	45.7%	(2,052)	60.0%	60	14,346
		Sikanni	3,302	3.3%	3,224	3.2%	16,863	16.9%	14,309	14.3%	24,124	24.1%	26,099	26.1%	55,686	55.7%	(4,299)	56,343	56.4%	(3,642)	60.0%	-	99,975
	Total		4,638	4.1%	4,338	3.8%	20,020	17.5%	16,172	14.1%	29,987	26.2%	30,914	27.0%	59,676	52.2%		62,899	55.0%				114,322
Northern Boreal Mountains Total			4,638	4.1%	4,338	3.8%	20,020	17.5%	16,172	14.1%	29,987	26.2%	30,914	27.0%	59,676	52.2%		62,899	55.0%				114,322
Omineca	Mountain	Graham	230	0.3%	35	0.0%	10,935	12.8%	9,357	10.9%	17,203	20.1%	15,106	17.7%	57,132	66.8%	(1,863)	61,002	71.3%	2,007	69.0%	40	85,500
	Mountain Total		230	0.3%	35	0.0%	10,935	12.8%	9,357	10.9%	17,203	20.1%	15,106	17.7%	57,132	66.8%		61,002	71.3%				85,500
	Valley	Graham	48	0.5%	39	0.4%	3,407	33.4%	2,678	26.2%	3,838	37.6%	4,165	40.8%	2,919	28.6%	(1,166)	3,329	32.6%	(756)	40.0%	20	10,212
	Valley Total		48	0.5%	39	0.4%	3,407	33.4%	2,678	26.2%	3,838	37.6%	4,165	40.8%	2,919	28.6%		3,329	32.6%				10,212
Omineca Total			278	0.3%	74	0.1%	14,343	15.0%	12,035	12.6%	21,041	22.0%	19,271	20.1%	60,050	62.7%		64,331	67.2%				95,711

All NDU/LU combinations meet the SFMP target or acceptable variances. The following LU species combinations have less than 50% of the target and will require spatial identification of areas greater than 100ha:

Milligan (Deciduous) – 3,867 ha

Lower Beatton (Conifer) – 3,590 ha

Rotating Reserves:

The strategy for rotating reserves is to spatially identify patches of mature forest initially where less than 50% of the old seral target is not achieved , in landscape units where new timber harvesting is proposed. The Lower Beatton for conifer stands and the Milligan for deciduous stands require the spatial location of rotating reserves. Many of the rotating reserves are adjacent to planned cutblocks. As these areas have not been located in the field at this time the boundaries are subject to change. These adjustments are acceptable as long as the target objective is still met for the landscape unit.

Lower Beatton Landscape Unit:

The following table gives an area breakdown of rotating reserves larger than 100 ha identified within the Lower Beatton Landscape Unit. The target for mature coniferous forest contributing to seral targets greater than 100 years old is 50% of the old seral target or 3,590 ha. The target for the Lower Beatton LU is met with conifer stands greater than 100 years old and greater than 10 m tall. Of the conifer contributing forest currently greater than 100 years old only 6.2% or 226 ha is black spruce. Reserve ID # 25 has the greatest proportion with 13.4% of the contributing conifer being black spruce.

Table 8: Lower Beatton Landscape Unit Rotating Reserves

Rotating Reserve ID	Contributing Forested Area (ha) > 100 Years old and > 10m tall			Total Contributing Forest	Grand Total Area (ha)[1]
	Conifer	Deciduous	Total		
8	130	85	215	235	235
15	259	82	342	409	409
17	377	32	409	470	470
18	464	73	538	560	585
20	365	208	573	594	621
25	1,385	359	1,744	1,902	2,518
26	327	73	400	453	486
27	354	104	458	466	661
Total	**3,661**	**1,016**	**4,679**	**5,089**	**5,986**

Milligan Landscape Unit:

The following table gives an area breakdown of rotating reserves larger than 100 ha identified within the Milligan Landscape Unit. The target for mature deciduous forest contributing to seral targets greater than 100 years old is 50% of the old seral target or 3,867 ha. The target for the Milligan LU is not met with deciduous stands greater than 100 years old and greater than 10 m tall. Due to the age class structure and spatial

[1] Total area including Non-contributing area to seral targets and non-forested areas within rotating reserve patches.

distribution of the patches of deciduous forest there is limited opportunity to identify larger patches of deciduous greater than 100 years old. The rotating reserve ID # 24 is a large recruitment patch located around the Chinchaga Lakes proposed protected area. The total area of deciduous within the rotating reserves in the Milligan LU is 5,514 ha.

Table 9: Milligan Landscape Unit Rotating Reserves

Rotating Reserve ID	Contributing Forested Area (ha)				Total Contributing Forest	Grand Total Area (ha)[2]
	Conifer		Deciduous			
	<100	100+	<100	100+		
2				127	127	127
4			101	43	144	148
5				167	167	167
6				175	175	175
7	0			178	178	178
9			85	198	283	292
10			260	87	347	347
13			250	117	367	367
14				390	390	390
16		54		371	425	436
19	0	255	0	347	602	605
22	5	202	23	504	734	762
24	0		1,352		1,352	1,352
Total	**5**	**510**	**2,070**	**2,703**	**5,289**	**5,345**

Patch Size (Section 6.3)

Target Statement*: A minimum of 19 of 33 (58%) of the baseline targets for early patches will be achieved during the term of this SFMP (SFMP Table 15)*

A minimum of 10 of 11 (91%) of the baseline targets for mature patches will be achieved during the term of this SFMP (SFMP Table 16)

Acceptable variances:

Natural disturbance events that shift the patch size distribution to such a level that it cannot be accommodated in a short (decade) time frame

Seral spatial distribution does not permit patch size targets in the short term.

Patch size distributions will need to be recalculated as new forest inventory is completed and targets and thresholds assessed to determine if they are still appropriate.

[2] Total area including Non-contributing area to seral targets and non-forested areas within rotating reserve patches.

Table 10: Early and Mature Patch Size Classes Post FOS Condition

Early Patches				
LU	Patch Class	ha	%	Target Range
Blueberry	0-50	8,447	8%	5-10
	51-100	7,599	7%	5-10
	100+	88,086	85%	65-95
Blueberry Total		104,132	100%	
Crying Girl	0-50	723	11%	15-25
	51-100	530	8%	5-15
	100+	5,242	81%	55-85
Crying Girl Total		6,495	100%	
Graham	0-50	516	19%	15-25
	51-100	405	15%	5-15
	100+	1,737	65%	55-85
Graham Total		2,658	100%	
Halfway	0-50	1,524	9%	5-10
	51-100	3,472	20%	5-10
	100+	12,348	71%	65-95
Halfway Total		17,344	100%	
Kahntah	0-50	3,716	11%	5-25
	51-100	2,860	8%	5-10
	100+	27,085	80%	55-90
Kahntah Total		33,660	100%	
Kobes	0-50	2,378	10%	5-10
	51-100	1,937	8%	5-10
	100+	19,865	82%	65-95
Kobes Total		24,180	100%	
Lower Beatton	0-50	4,311	20%	5-25
	51-100	2,910	13%	5-10
	100+	14,840	67%	65-90
Lower Beatton Total		22,061	100%	
Milligan	0-50	1,622	6%	5-25
	51-100	1,084	4%	5-10
	100+	23,375	90%	65-90
Milligan Total		26,081	100%	
Sikanni	0-50	128	4%	5-15
	51-100	58	2%	5-10
	100+	3,061	94%	65-90
Sikanni Total		3,248	100%	
Tommy Lakes	0-50	5,631	10%	5-20
	51-100	5,670	10%	5-10
	100+	46,786	81%	65-90
Tommy Lakes Total		58,088	100%	
Trutch	0-50	910	14%	5-20
	51-100	1,844	28%	5-10
	100+	3,737	58%	65-90
Trutch Total		6,492	100%	

Mature Patches				
LU	Patch Class	ha	%	Target Range
Blueberry	0-50	26,871	22%	
	51-100	11,838	10%	
	100+	81,868	68%	>65
Blueberry Total		120,578	100%	
Crying Girl	0-50	1,947	9%	
	51-100	527	2%	
	100+	19,282	89%	>55
Crying Girl Total		21,757	100%	
Graham	0-50	8,191	6%	
	51-100	2,617	2%	
	100+	134,329	93%	>55
Graham Total		145,137	100%	
Halfway	0-50	8,815	9%	
	51-100	2,099	2%	
	100+	89,635	89%	>65
Halfway Total		100,549	100%	
Kahntah	0-50	20,839	28%	
	51-100	8,540	11%	
	100+	46,144	61%	>55
Kahntah Total		75,524	100%	
Kobes	0-50	5,248	7%	
	51-100	1,494	2%	
	100+	69,402	91%	>65
Kobes Total		76,145	100%	
Lower Beatton	0-50	8,265	31%	
	51-100	2,593	10%	
	100+	15,817	59%	>65
Lower Beatton Total		26,675	100%	
Milligan	0-50	5,323	16%	
	51-100	2,138	6%	
	100+	26,098	78%	>65
Milligan Total		33,559	100%	
Sikanni	0-50	4,430	4%	
	51-100	2,614	2%	
	100+	106,497	94%	>65
Sikanni Total		113,541	100%	
Tommy Lakes	0-50	27,828	17%	
	51-100	10,273	6%	
	100+	122,920	76%	>65
Tommy Lakes Total		161,021	100%	
Trutch	0-50	18,096	15%	
	51-100	7,349	6%	
	100+	96,742	79%	>65
Trutch Total		122,187	100%	

When early patches are analyzed based on the FOS condition, 25 of 33 or 76% of early patches meet the target ranges. Mature patches remain the same from the analysis of the SFMP and the FOS condition with 10 of 11 targets being met. The Lower Beatton remains the only unit not meeting the target for large mature patches however the condition has improved from 51% identified in the SFMP to 59% in the FOS.

Shape Index (Section 6.4)

Target Statement:

Patches 50 -100 ha:The average Shape Index of young patches in a LU will be at least 2.0

Patches 100 -1000: The average Shape Index of young patches in an LU will be at least 3.0

Patches 1000+: The average Shape Index of young patches in an LU will be at least 4.0

The average Shape Index maximum variance will be 10% less than the target.

Table 11: Early Patch Shape Index - FOS Condition

LU	Early Patch Size Classes									Total Area	Total # of Patches	Total Ave Shl
	51-100			101-1000			1000+					
	Area	N	Ave Shl	Area	n	Ave Shl	Area	n	Ave Shl			
Blueberry	7,599	108	2.38	45,664	168	3.83	42,421	15	8.64	95,684	291	3.54
Crying Girl	530	6	2.05	4,225	17	3.18	1,017	1	7.09	5,772	24	3.06
Graham	405	5	2.25	1,737	8	3.41				2,142	13	2.96
Halfway	3,472	47	2.37	6,526	36	2.67	5,821	3	6.25	15,820	86	2.63
Kahntah	2,860	39	2.78	12,343	47	3.77	14,741	7	8.08	29,944	93	3.68
Kobes	1,937	28	2.41	10,658	41	3.59	9,207	5	7.11	21,803	74	3.38
Lower Beatton	2,910	39	2.60	10,595	51	3.21	4,245	3	7.93	17,750	93	3.11
Milligan	1,084	15	2.75	6,453	17	4.12	16,922	2	13.43	24,459	34	4.06
Sikanni	58	1	2.25	1,501	4	2.90	1,560	1	5.18	3,120	6	3.17
Tommy Lakes	5,670	80	2.91	21,764	91	3.77	25,022	3	13.09	52,456	174	3.54
Trutch	1,844	28	2.66	3,737	12	3.23				5,581	40	2.83
Grand Total	28,368	396	2.58	125,205	492	3.60	120,958	40	8.57	274,531	928	3.38

An analysis of the FOS condition early patch shape index shows that all classes for each LU meet the target except for the Halfway and Sikanni LU's in the 101-1000 ha class. As the proposed harvest areas in the FOS have not been laid out and the shapes are generalized with no retention areas identified it is expected that the actual shape index target will be achieved for the Halfway unit. Layout will be planned in the Halfway LU to address this condition. There is no existing or proposed harvesting in the Sikanni LU.

As noted in the SFMP, the combined function of managing for both early and mature patch sizes controls where harvesting may occur, as well as what is left as intact mature forest over time. The seral stage indicator controls the amount of the various age groups present on the landscape. The patch size indicators address both the size and shape of patches at the landscape level over time. The CWD and Wildlife Tree Patch indicators

provide structure within or adjacent to harvest areas. These processes manage the structural characteristics and the temporal and spatial distribution of forest patches such that a separate adjacency indicator is not necessary. The SFMP strategy and related indicators therefore addresses the requirements of the FSJPPR Section 97(e) regarding harvesting adjacent to areas not greened up.

3.4 Riparian Management Strategy Indicators

Riparian Management River Corridors (6.22)

Target Statement: *No openings exceeding 1 hectare in blocks within the major river corridors (i.e. within 100 metres of the Riparian Reserve Zone in identified major river corridors) harvested under the FSJPPR (i.e. after November 15th, 2001). Acceptable variances allow 10% of the openings to vary from this requirement, provided they do not exceed 2 hectares in size.*

A digital coverage was created for those portions of streams identified in the LRMP in the Major River Corridor Resource Management Zone . The coverage assigned a 100 metre buffer to the riparian reserve zone stream classification, which was based on inventory information if known, or defaulted to S1 classifications if unknown. This coverage is displaced on all 1: 50000 maps where the Major River Corridor RMZ occurs.

Any unauthorized blocks that fell within a major river corridor were either deleted prior to inclusion in the FOS, or were designated for partial cutting systems (Blocks 20015 and 20016) that will be consistent with the target statement.

Peak Flow Index (S.6.34)

Target Statement: *A minimum of 95% of the watersheds will be below the baseline target. All watersheds that exceed the baseline target will have a watershed review completed wherever new harvesting is planned. A variance to a minimum of 90% of the watersheds will be below the baseline targets will be acceptable.*

A zero variance for conducting a watershed review wherever new harvesting is planned in a watershed where the baseline target is exceeded.

Table 12: PFI FOS Condition and Targets

Watershed Group	Watershed Name	Class	Size (km2)	Elevation range (m)	H60 Elevation (m)	Baseline Threshold PFI	PFI FOS
Fontas	Bedji Creek		230.42	460 – 600	508	50	3.28
Fontas	Chasm Creek		168.21	539 – 680	599	50	5.74
Fontas	Dazo Creek		260.27	360 – 494	460	50	4.05
Fontas	FONT Unnamed 1		117.73	361 – 481	461	50	3.11
Fontas	Fontas River		320.35	536 - 800	660	50	3.89
Fontas	Kataleen Creek		162.95	380 – 451	413	50	2.95
Fontas	Teklo Creek		212.81	380 – 474	426	50	1.56
Fontas	Upper Etthithun River		404.45	620 – 842	680	50	17.25
Fontas	Ekwan Creek	LB	850.5	360 – 481	420	50	4.46
Fontas	Etthithun River	LB	1161.6	440 – 842	535	50	8.29
Fontas	Fontas River - LB	LB	714.32	440 – 800	580	50	3.70
Kahntah	Dahl Creek		412.84	535 – 943	700	50	0.62
Kahntah	Helicopter Creek		147.32	505 - 742	613	62	3.89
Kahntah	KAHN Unnamed 4		226.87	640 – 944	720	50	30.22
Kahntah	KAHN Unnamed 5		126.05	538 – 721	624	62	6.37
Kahntah	Upper Cautley Creek		478.27	660 – 1022	740	62	22.64
Kahntah	Cautley Creek	LB	865.02	518 – 1022	680	62	15.83
Kahntah	Kahntah Creek	LB	1096.59	518 - 944	700	50	9.18
Lower Beatton	Aitken Creek		828.45	654-985	815	43	12.70
Lower Beatton	Charlie Lake		292.66	690-889	773	62	80.89
Lower Beatton	Doig River		983.34	623-852	731	43	3.81
Lower Beatton	Osborn River		735.95	623-987	745	43	25.95
Lower Beatton	Umbach Creek		430.91	611-866	741	43	23.93
Lower Beatton	Upper Blueberry		857.77	655-1048	820	50	20.27
Lower Halfway	Aikman Creek		118.74	640 - 1120	815	43	24.12
Lower Halfway	Blair Creek		230.44	698 – 1142	902	43	16.44
Lower Halfway	Cameron Creek		495.18	699 – 1203	944	43	12.86
Lower Halfway	Colt Creek		158.53	719 – 1701	913	43	16.76
Lower Halfway	Deadhorse Creek		208.99	560 – 959	820	43	25.40
Lower Halfway	Ground Birch Creek		338.39	558 – 1062	735	43	29.79
Lower Halfway	Horn Creek		426.61	1079 – 2347	1474	37	0.01
Lower Halfway	Kobes Creek		299.88	620 – 1648	828	50	21.17
Lower Halfway	LHAF Unnamed 1		216.47	699 – 1022	860	43	22.84
Lower Halfway	Needham Creek		328.94	938 – 2269	1430	43	0.04
Lower Halfway	Poutang Creek		179.97	1098 – 2393	1453	43	0.00
Lower Halfway	Townsend Creek		295.8	698 – 1081	880	43	21.35
Lower Halfway	Cameron River - Residual	LB	2029.32	538 - 1205	837	37	19.53
Lower Halfway	Graham River	LB	2309.94	530 – 2404	1279	43	4.64
Lower Sikanni	Bull Creek		351.34	639 – 981	752	50	0.79
Lower Sikanni	Dechacho Creek		172.51	378 – 762	516	50	8.59
Lower Sikanni	Katah Creek		594.82	419 – 915	660	50	0.68
Lower Sikanni	Kenai Creek		78.86	400 – 621	1000	50	5.42

Watershed Group	Watershed Name	Class	Size (km2)	Elevation range (m)	H60 Elevation (m)	Baseline Threshold PFI	PFI FOS
Lower Sikanni	LSIK Unnamed 2		162.43	536 – 858	720	43	8.17
Lower Sikanni	LSIK Unnamed 4		59.29	519 – 721	641	50	3.57
Lower Sikanni	Niteal Creek		516.6	359 – 520	475	50	6.80
Lower Sikanni	Upper Gutah Creek		806.45	559 – 901	728	62	1.27
Lower Sikanni	West Conroy		248.28	638 – 1020	782	50	1.11
Lower Sikanni	Conroy Creek	LB	1096.67	417 – 1020	720	50	2.45
Lower Sikanni	Gutah Creek	LB	1450.99	380 – 901	645	50	2.53
Milligan	Dede Creek		128.35	680 – 740	720	62	1.84
Milligan	Flick Creek		203.24	700 – 859	780	62	3.74
Milligan	Little Beaverdam Creek		334.14	690 – 854	732	62	4.20
Milligan	MILL Unnamed 3		325.52	780 – 962	880	62	10.81
Milligan	Milligan Creek		432.38	680 – 941	780	50	5.23
Milligan	Upper Milligan Creek		382.2	719 – 941	832	50	4.91
Milligan	Milligan Creek - LB	LB	1836.56	619 – 941	758	50	5.94
Upper Beatton	Arrow Creek		507.02	661 – 902	783	50	25.26
Upper Beatton	Beatton River		1071.09	777 – 1780	984	43	6.57
Upper Beatton	Black Creek		666.11	700 – 1022	807	50	7.01
Upper Beatton	Grewatsch Creek		269.73	736 – 1103	927	50	7.37
Upper Beatton	Holman Creek		150.18	719 – 1080	896	50	15.93
Upper Beatton	Jedney Creek		128.76	779 – 1101	952	43	5.50
Upper Beatton	La Prise Creek		338.99	717 – 1021	860	50	6.54
Upper Beatton	Martin Creek		120.24	700 – 980	830	50	57.35
Upper Beatton	McMillan Creek		103.34	659 – 770	736	43	4.10
Upper Beatton	Nig Creek		476.81	680 – 920	782	50	28.62
Upper Beatton	UBTN Unnamed 9		156.26	677 – 880	757	50	10.19
Upper Beatton	Upper Beatton Lrg	LB	2345.63	719 - 1782	924	50	8.04
Upper Halfway	Blue Grave Creek		158.63	720 – 1722	960	37	15.01
Upper Halfway	Horseshoe Creek		197.41	739 - 1762	1060	37	4.86
Upper Halfway	Two Bit Creek		160.23	980 – 1888	1235	37	0.00
Upper Halfway	UHAF Unnamed 3		127.86	922 – 1862	1221	37	0.47
Upper Halfway	UHAF Unnamed 6		211.34	778 – 1981	976	37	14.86
Upper Halfway	Upper Chowade		426.75	925 – 2336	1395	37	2.70
Upper Halfway	Upper Cypress		334.89	1099 – 2316	1493	37	0.00
Upper Halfway	Upper Halfway River		629.22	1103 – 2590	1235	37	1.55
Upper Halfway	Chowade River	LB	988.88	779 - 2331	1475	43	5.59
Upper Halfway	Cypress Creek	LB	620.07	840 – 2229	1200	37	4.56
Upper Halfway	Upper Halfway River - LB	LB	1096.06	914 – 3057	1241	37	1.36
Upper Peace	Coplin Creek		350.04	582-942	773	43	21.90
Upper Peace	Farrel Creek		646.01	447-1686	713	43	10.60
Upper Peace	North Cache Creek		187.89	548-909	759	43	18.46
Upper Peace	Red Creek		239.85	446-919	753	43	12.65
Upper Prophet	Besa Creek		515.61	1136 – 2993	1568	43	0.01
Upper Prophet	Minaker River		170.31	859 – 1742	1060	43	0.12
Upper Prophet	Nevis Creek		182.43	1019 – 2102	1422	37	0.01
Upper Prophet	Pocketknife Creek		235.85	860 – 1884	1110	43	0.00

Watershed Group	Watershed Name	Class	Size (km2)	Elevation range (m)	H60 Elevation (m)	Baseline Threshold PFI	PFI FOS
Upper Prophet	Upper Keily Creek		269.62	1137 – 2920	1683	37	0.00
Upper Prophet	Minaker River - Residual	LB	555.08	819 – 1820	1070	43	0.25
Upper Prophet	Upper Prophet	LB	1177.85	1020 - 2993	1569	37	0.00
Upper Sikanni	Boat Creek		391.83	455 – 1081	719	50	0.00
Upper Sikanni	Buckinghorse River		389.18	840 – 1936	1119	43	0.03
Upper Sikanni	Coal Creek		214.49	637 – 1079	900	43	7.88
Upper Sikanni	Daniels Creek		223.39	758 – 1263	1041	43	0.99
Upper Sikanni	Donnie Creek		122.16	520 – 1043	822	50	10.79
Upper Sikanni	Loranger Creek		132.18	1025 – 2018	1390	43	5.98
Upper Sikanni	Medana Creek		138.68	702 – 1183	1000	43	1.92
Upper Sikanni	Middle Fork Creek		207.97	857 – 1269	1060	43	3.97
Upper Sikanni	Sidenius Creek		460.87	1119 – 2619	1489	43	0.04
Upper Sikanni	Sikanni Chief		470.52	1119 – 2739	1488	43	0.53
Upper Sikanni	Temple Creek		216.19	458 – 901	760	43	3.45
Upper Sikanni	Trimble Creek		160.27	1082 – 2122	1439	43	0.00
Upper Sikanni	Trutch Creek		858.44	491 – 1262	781	43	1.94
Upper Sikanni	Buckinghorse River - Residual	LB	1239.18	618 - 1936	1029	43	1.28
Upper Sikanni	Sikanni Chief - Residual	LB	2902	618 – 2739	1143	43	4.08

All watersheds (103 of 105 or 98%) are within the target threshold except for Charlie Lake and Martin Creek. These two watersheds have developments proposed within them and will have a watershed review conducted prior to harvest authorizations being requested.

The PFI analysis is draft at this point and will be reviewed to ensure accuracy prior to the final FOS completion.

3.5 Visual Quality Management Strategy Indicator

Visual Quality Objectives (S. 6.44)

Target Statement– *Pilot participants forest operations will be consistent with established Visual Quality Objectives (VQO's). Variances to established VQO's which have a supporting rationale are allowed where approved by the District Manager.*

Participants have committed to achieving VQO objectives post-harvest in visually inventoried areas along the Alaska Highway, and in the Graham River IRM Area. In identified scenic areas without established objectives, block design techniques will be used to mitigate the impact of timber harvesting in scenic areas. The maps show the visual quality polygons, and Table 1 identifies the blocks located in these visually sensitive areas, as well as the predominate visual quality objective for the portions of the block that falls within a VQO polygon.

3.6 Range and Forage Management Strategy Indicator

Range Actions Plans(S. 6.41)

Target: *Operations 100% consistent with the resultant range action plans from consultative processes.*

Information on the FOS was made available for comment during the 60-day review period. Range tenure holders have been advised by letter of specific blocks proposed for their tenured areas. Opportunities to meet with range tenure holders and community pasture associations have been and will continue to be pursued. Appendix D summarizes comments received to date from range tenure and other stakeholders, and Appendix F includes Review and Comment revisions.

3.7 Other SFMP Indicators related to the FOS:

Caribou (Section 6.12)

Target Statement: *40% of forests will be greater than the baseline target age by caribou management zone*

The following table indicates the current and post FOS status and targets for each of the Caribou Management Zones with forest age constraints.

Table 13: Current and Post FOS Condition for Caribou Management Zones

Caribou Management Zone	Age Group and Targets								Total Forested Area
	2004		2010		2004		2010		
	Area	%	Area	%	Area	%	Area	%	
Graham	<140 Years Old				Target: 40% >140 Years Old				
	65,989	58.5%	63,743	56.5%	46,862	41.5%	49,108	43.5%	112,851
Kobes	<120 Years Old				Target: 40% >120 Years Old				
	17,036	48.9%	14,909	42.8%	17,829	51.1%	19,955	57.2%	34,864
Hackney	<100 Years Old				Target: 40% >100 Years Old				
	55,454	45.5%	46,978	38.6%	66,327	54.5%	74,804	61.4%	121,781

The table illustrates that the target is met in each of the 3 management zones.

Guides, Trappers and other interests (S. 6.46)

Target: *Operations 100% consistent with the resultant action plans from consultative processes.*

Information on the FOS was available for comment during the 60-day review period. Trapline holders and guide tenure holders were advised by letter of specific blocks proposed for their tenured areas, and opportunities provided to meet with these tenure holders will be provided. Appendix D summarizes comments received to date from all stakeholders, and Appendix F includes Review and Comment revisions.

Number of Known Values and Uses Addressed in Operational Planning (S.6.57)

Target Statement-*100% of known traditional site-specific aboriginal values and uses identified during SFMP, FOS, FDP, or PMP referrals will be addressed in operational plans*.

The SFMP outlines some examples of past changes to blocks in operational plans to address aboriginal values. Preliminary maps of conceptual FOS block locations were provided to First Nations prior to the formal publication of the FOS for general public review, and initial discussions occurred between First Nations and two licencees who have formal Memoranda of Agreement with the six local First Nations. One conceptual block was deleted prior to the preparation of this FOS due to concerns expressed by a First Nation.

A summary of First Nations consultation on the FOS is included in Appendix E.

Regulatory Public Review and Comment Process (Section 6.58)

Target Statement: *Comply with Public Review and Comment Processes.*

The FSJPPR *(Section's 82 & 83)* outlines the requirements for Public Review and Comment for Forest Operations Schedules. The district manager's direction on referrals was included in a letter dated June 24, 2004 (Appendix E). As directed by the district manager, copies of the FOS for public review and comment were submitted to OGC and WALP. Range tenure holders, guide outfitters, and trapper tenure holders were advised in writing, accompanied by tenure specific maps , of activities within the tenure holders area of operation (Appendix C). First Nations consultation meetings and correspondence are included in Appendix E. A summary of revisions made to the FOS, and copies of the participants responses to comments received are included in Appendix F.

Public Inquiries (Section 6.60)

Target Statement: *Respond to 100% of public inquiries regarding our forestry practices within one month of receipt. Responses will be made to all specific inquiries, providing contact information is provided that allows the participant to reach the person making* the *inquiry.*

All inquiries and comments received during the FOS 60 day review period have been responded to prior to submission of this FOS. Appendix D summarizes comments received to date from the public, including stakeholders, and Appendix F includes Review and Comment revisions. Copies of responses to comments received are included in Appendix G.

Representative Examples of Ecosystems (Section 6.17)

Target Statement: 100% of baseline targets for forested stands by leading species by NDU will be met

Acceptable Variances:

No acceptable variance for DFA targets.

10 ha or 10% of area, which ever is greater for Leading Species by NDU that have an uncommon distribution if required for access purposes.
No acceptable variance for Leading Species by NDU that are not identified as uncommon.

The SFMP requires an assessment of those NDU species combinations highlighted in yellow in the following table to ensure that targets are not compromised.

Table 14: Proportion of Leading Species by NDU Unmanaged

Natural Disturbance Unit	Sub NDU	Leading Species	Total Forested Area	Unmanaged Forests			FOS Harvest Area
				Non-THLB	%Non-THLB	Baseline Target %	

Boreal Plains		AC	22,037	9,592	43.50%	12%	
		AT	550,261	225,543	41.00%	12%	
		BL	1,161	846	72.90%	12%	
		Ep	39,348	38,773	98.50%	12%	
		LT	14,752	14,752	100.00%	12%	
		PL	510,157	189,727	37.20%	12%	
		SX	362,294	79,930	22.10%	12%	
		SB	1,122,681	1,122,393	100.00%	12%	
Boreal Plains Total			2,622,690	1,681,555	64.10%		
Boreal Foothills	Valley	AC	173	168	97.00%	80%	3.8
		AT	2,589	1,170	45.20%	12%	
		BL	0	0	0.00%	0%	
		Ep**	5	5	100.00%	100%	0
		PL	14,623	6,609	45.20%	12%	
		SX	15,673	2,930	18.70%	12%	
		SB	1,363	1,363	100.00%	12%	
	Valley Total		34,425	12,244	35.60%		
	Mountain	AC	92	92	100.00%	100%	0
		AT	2,616	1,779	68.00%	12%	
		BL	13,742	13,599	99.00%	12%	
		Ep	28	28	100.00%	100%	0
		PL	35,835	26,600	74.20%	12%	
		SX	100,822	59,842	59.40%	12%	
		SB	924	924	100.00%	12%	
	Mountain Total		154,058	102,864	66.80%		
Boreal Foothills Total			188,483	115,108	61.10%		
Northern Boreal Mountains		AC	626	557	89.00%	70%	0
		AT	8,558	8,514	99.50%	12%	
		BL	5,384	5,361	99.60%	12%	
		PL	31,874	19,943	62.60%	12%	
		SX	114,208	94,445	82.70%	12%	
		SB	4,913	4,912	100.00%	12%	
Northern Boreal Mountains Total			165,562	133,732	80.80%		
Omineca	Valley	AC	33	33	100.00%	100%	0
		AT	364	248	68.20%	50%	0
		BL*	8	8	100.00%	100%	0
		PL	3,773	2,763	73.20%	12%	
		SX	4,445	2,737	61.60%	12%	
		SB	269	269	100.00%	12%	
	Valley Total		8,892	6,059	68.10%		
	Mountain	AC*	2	2	100.00%	100%	0
		AT	510	432	84.80%	50%	0
		BL	17,861	17,674	99.00%	12%	
		PL	9,945	8,291	83.40%	12%	
		SX	59,039	51,187	86.70%	12%	
		SB	313	313	100.00%	100%	0
	Mountain Total		87,669	77,899	88.90%		
Omineca Total			96,561	83,958	86.90%		
Grand Total			**3,073,297**	**2,014,353**	**65.50%**		

* 100% contained within a Park

** Polygon is a portion of polygon split by the NDU Line between Boreal Foothills Valley and Mountain.

Harvesting is proposed in only one of the units identified above. The Boreal Foothills – Valley – AC group has 173 ha total forested area with a target to leave 80% or 138 ha unmanaged, This leaves 35 ha available of which just under 4 ha is identified in the FOS. This meets the requirements of this indicator.