Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective		Indicator	Target
Conserve biological diversity by maintaining integrity, function and diversity of living organisms and the complexes of which they are part.					
Element 1.1 Ecosystem Diversity Conserve ecosystem diversity at the landscape level by maintaining the variety of communities and ecosystems that naturally occur on the DFA.	Ecosystem Diversity	The diversity and pattern of communities and ecosystems within a natural range.	1	Percent distribution of forest type (deciduous, deciduous mixedwood, conifer mixedwood, conifer) >20 years old by landscape unit	100% of forest type groups by landscape unit will be within the target range
			2	The minimum proportion (%) of late seral forest by NDU by LU	The minimum proportion (%) of late seral forest by NDU by LU as identified in tables 10, 11, 12 will be met within the identified timelines
			3	Percent area by Patch Size Class (0-50, 51-100, and >100 ha) by Landscape Unit	A minimum of 19 of 33 (58%) of the baseline targets for early patches will be achieved during the term of this SFM Plan. A minimum of 10 of 11 (91%) of the baseline targets for mature patches will be achieved during the term of this SFM Plan
			4	Average shape index of young patches in a landscape unit	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.
Element 1.2 Species Diversity Conserve species diversity by ensuring that habitats for the native species found on the DFA are maintained through time.	Species Richness	Suitable habitat elements for indicator species	5	Number of snags and/or live trees (>17.5 cm dbh) per ha on prescribed areas	Retain annually an average of at least 6 snags and/or live trees (>17.5 cm dbh) per hectare on prescribed areas
			6	Average Coarse Woody Debris volume/ha on blocks logged in the DFA	Minimum target average retention level over the DFA will be 46 m^3/ha (50% of average pre-harvest volume) on harvested blocks assessed for the period between December 1, 2003 and November 30, 2008
			7	The number of non-compliances to riparian reserve zone standards	No non-compliances to riparian reserve zone standards
			8	The proportion of shrub habitat (%) by Landscape Unit	Each landscape unit will meet or exceed the baseline target (%) proportion of shrub habitat
			9	Cumulative Wildlife Tree Patch percentage in blocks harvested under the FSJPPR in each Landscape Unit	Cumulative Wildlife Tree Patch % will meet or exceed the minimum target in each LU (Blueberry 6%, Halfway 3%, Kahntah 7%, Kobes 5%, Lower Beatton 8%, Milligan 6%, Tommy Lakes 3%, Trutch 5%, Sikanni 4%, Graham 4%, Crying Girl 6%)
			10	The % prohibited and primary noxious weeds, and known invasive weed species of concern, in seed mix analysis	Seed mix analysis will have 0% content of prohibited and primary noxious weeds as identified in the most current publication of "Noxious Weeds in the Peace River Regional District", and known invasive weed species of concern
		Maintain habitats for species at risk	11	The percent of species at risk with management strategies developed and being implemented	Develop forest management strategies for all species at risk in the DFA by June 2004. On an annual basis, ensure that 100% of species at risk management strategies are being implemented as scheduled
			12	Proportion of area (%) of forest greater than the baseline target age by caribou management zone	40% of forests will be greater than the baseline target age by caribou management zone

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6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective	Indicator		Target
Element 1.3 Genetic Diversity Conserve genetic diversity by maintaining the variation of genes within species.	Genetic Diversity	Conserve genetic diversity of tree stock	13	The percentage of seeds & vegetative material collected and planted in accordance with the Chief Foresters Standards for Seed Use, November 20, 2004	100% of all seeds and vegetative material will be collected and planted in accordance with the Chief Forester's "Standards for Seed Use", (dated November 20, 2004)
			14	% Natural Regeneration of aspen	We will use 100% natural regeneration for aspen to ensure the conservation of genetic diversity of tree stock
Element 1.4 Protected Areas and Sites of Special Biological Significance Respect protected areas identified through government processes. Identify sites of special biological significance within the DFA and implement management strategies appropriate to their long term maintenance.	Protected Areas and Conservation Emphasis areas, for example Special Management Zones, Ecological Reserves, etc.	To have representative areas of naturally occurring & important ecosystems & rare physical environments protected at both the broad and site-specific levels across or adjacent to the DFA	15	Hectares of Forestry Related Harvesting or Road Construction within Class A parks, ecological reserves and LRMP designated protected areas	Zero hectares of forestry related harvesting or road construction within Class A parks, ecological reserves or LRMP designated protected areas
			16	Proportion of activities consistent with objectives of Wildlife Habitat Areas (WHA), Ungulate Winter Ranges (UWR) and the Muskwa-Kechika Management Area (MKMA)	All pilot participant activities will be consistent with objectives of Wildlife Habitat Areas, Ungulate Winter Ranges and the MKMA
			17	Proportion of area (%) of forest stands by leading species by NDU in an unmanaged condition	100% of baseline targets for forested stnads by leading species by NDU will be met
		Management strategies address important values in SMZ areas	18	Relative timing of commencement of operational harvesting within clusters in the Graham IRM Plan area	Harvesting will not commence prior to the planned harvest start date for any cluster
			19	Cumulative merchantable hectares within blocks harvested within the Graham IRM area	The cumulative merchantable hectares within blocks will be consistent with the estimated total harvest area, as measured at the end of each time period
			20	Hectares harvested in cutblocks in the Graham IRM area, within the permanent alluvial and non-productive/non-commercial components of the connectivity corridors	No harvesting within the permanent alluvial and non-productive/non-commercial components of the connectivity corridors
			21	The number of drainages in the MKMA in which Clustered Harvest Plans are completed and submitted to government	A minimum of 1 drainage plan submitted no later than October 2007
			22	The percentage of harvested areas that create openings greater than 1 hectare within100 metres of RRZ's in identified major river corridors	No openings exceeding 1 hectare in blocks within the major river corridors harvested under the FSJPPR (i.e. after November 15th, 2001)
			23	% of new main summer road length developed adjacent to harvested areas within identified major river corridors where visual screening is present	100% of summer accessible road lengths within the designated area will have visual screening from adjacent cutblocks

Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective		Indicator	Target
CCFM Criterion 2 – Maintenance and Enhancement of Forest Ecosystem Condition and Productivity Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.					
Element 2.1 Forest Ecosystem Resilience Conserve ecosystem resilience by maintaining both ecosystem processes and ecosystem conditions.	Ecosystem Resilience	A natural range of variability in ecosystem function, composition and structure with allows ecosystems to recover from disturbance and stress	**2**	See indicator #2	
			24	Permanent access structures (%) within cutblocks	A maximum of 5% of the total cumulative area in cutblocks by participant to be occupied in permanent access structures in which harvesting was completed during that annual reporting period as determined on a 3 year rolling average
			25	% of significant detected forest health damaging agents which have treatment plans prepared and implemented	100% of significant detected forest health damaging agents will have treatment plans prepared and implemented within 1 year of initial detection
			6	See indicator #6	
			5	See indicator #5	
			9	See indicator #9	
			26	The relative proportion of salvaged hectares versus total hectares damaged in merchantable stands (as defined in the current TSR) within a management intensity class	The relative proportions of salvage hectares will be highest in the high intensity zones, and lowest in the low intensity zones over an SFM Plan period (December 1, 2003- March 31, 2008)
			27	Percentage of area harvested annually using even aged silvicultural systems	Even aged silvicultural systems will be employed on at least 80% of the total area harvested annually in the DFA
			28	Relative Change in Plantation Composition versus Harvest Composition for Spruce and Pine	The relative proportion of spruce and pine planted annually will equal the proportions harvested annually (excluding fill planting)
			29	Merchantable Volume (m3) for coniferous areas	For coniferous areas, Merchantable Volume will meet or exceed Target Volume within the reforestation period
			30	Establishment Delay (years)	The area weighted average establishment delay for coniferous regeneration will not exceed two years. The area weighted average establishment delay for deciduous regeneration will not exceed two years
Element 2.2 Forest Ecosystem Productivity Conserve ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species.	Ecosystem Productivity	Ecosystem functions capable of supporting naturally occurring species exist within the range of natural variability	**1**	See indicator #1	
			2	See indicator #2	
			20	See indicator #20	
			3	See indicator #30	
			25	See indicator #25	
	Productive Capacity for Timber	Maintain or enhance landscape level productivity	**31**	Long-term harvest level (LTHL) as measured in cubic metres per year (m^3/yr)	We will propose an Allowable Annual Cut (AAC) that sustains the LTHL of the Defined Forest Area (DFA)
			32	Site index	Average post harvest site index will not be less than average pre-harvest site index on blocks harvested under the pilot project regulation
			25	See indicator #25	

Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective		Indicator	Target
CCFM Criterion 3 – Conservation of Soil and Water Resources Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.					
Element 3.1 Soil Quality and Quantity Conserve soil resources by maintaining soil quality and quantity.	Soil Productivity	Protect soil resources to sustain productive forests	32	See indicator #32	
			33	Number of hectares of landslides resulting from forestry practices	Zero hectares of landslides due to forestry activities on blocks harvested and roads constructed commencing December 1, 2001
Element 3.2 Water Quality and Quantity Conserve water resources by maintaining water quality and quantity.	Water Quantity	Maintenance of water quantity	34	The percent of watersheds achieving baseline targets for the peak flow index and the percent of watershed reviews completed where the baseline target is exceeded	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
	Water Quality	Maintenance of water quality	35	The percentage of surveyed stream crossings identified with a high WQCR rating on forestry roads within the DFA for which participants are responsible (*WQCR – water quality concern rating)	Less than 25% of surveyed stream crossings on active roads (i.e. not deactivated) will have "High" WQCR of the total, based on a three year rolling average. Less than 30% of surveyed stream crossings on non-active roads (i.e. deactivated) will have "High" WQCR of the total, based on a three year rolling average
			7	See indicator #7	
			36	The number of non-conformances to SLP measures to protect stream bank, stream channel stability and riparian vegetation from harvesting and silviculture activities	No non-conformances related to protecting stream bank, stream channel stability and riparian vegetation due to harvesting or silviculture activities
			37	Number of reportable spills entering water bodies	Zero reportable spills entering water bodies
CCFM Criterion 4 – Forest Ecosystem Contributions to Global Ecological Cycles Maintain forest conditions and management activities that contribute to the health of global ecological cycles.					
Element 4.1 Carbon Uptake and Storage Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.	Carbon Uptake and Storage	Maintenance of the processes for carbon uptake and storage	38	Mean Annual Increment (m^3/ha/yr)	Maintain or increase MAI in the long term
			39	Total Growing Stock (m^3) in the Fort St. John DFA	No decline lower than the long term total growing stock of 95 million m^3
			29	See indicator #29	
			30	See indicator #30	
Element 4.2 Forest Land Conversion Protect forestlands from deforestation or conversion to non-forests.	Forest Land Base	Sustain forest lands within our control within the DFA	24	See indicator #24	
		Foster inter-industry cooperation to minimize conversion of forested lands to non forest conditions	40	Number of coordinated developments	Report annually the number of proposed coordinated developments that are successful versus unsuccessful

Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective		Indicator	Target
CCFM Criterion 5 – Multiple Benefits to Society Sustain flows of forest benefits for current and future generations by providing multiple goods and services.					
Element 5.1 Timber and Non-Timber Benefits Manage the forest to produce an acceptable and feasible mix of both timber and non-timber benefits.	Timber and Non-Timber Multi-use Benefits	Provide opportunities for a feasible mix of timber, recreational activities, and non-timber commercial activities	**41**	Consistency with mutually agreed upon action plans for range	Operations 100% consistent with resultant range action plans
			42	Number of range improvements damaged by participants' activities	No damage to range improvements by pilot participants activities
			43	The number of recreation sites managed by participants	Participants will provide and maintain a minimum of one recreational site within the DFA
			44	Consistency with Visual Quality Objectives (VQO's)	Pilot participants' forest operations will be consistent with the established VQO's
			45	Percent of area in primitive and semi-primitive non-motorized classifications of the Recreation Opportunity Spectrum (ROS) for Besa-Halfway-Chowade (B-H-C), Graham North (GN), Graham South (GS), and Crying Girl (CG) Resource Management Zones (RMZ)	Maintain the primitive level ROS percentage of area for the B-H-C at 1996 levels. 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
			18	See indicator #18	
			19	See indicator #19	
			21	See indicator #21	
			46	Consistency with mutually agreed upon action plans for guides, trappers and other known non-timber commercial interests	Operations 100% consistent with the resultant action plans
			47	Volume of timber processed in the DFA in proportion to volume harvested in the DFA	The annual equivalent of 70% of the DFA's harvest is primary processed in the DFA

Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective	Indicator		Target
Element 5.2 Communities and Sustainability Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and to participate in their use and management.	Sustainable and Viable Communities	Viable timber processing facilities in the DFA	**48**	Volume (m^3) of timber delivered annually to mills between May 1st and November 30th	2003: Minimum of 100,000 m^3 coniferous to FSJ sawmill. 2004+: Minimum of 150,000 m^3 coniferous to FSJ sawmill and 185,000 m^3 delivered to the deciduous manufacturing facilities
			49	% of coniferous area harvested using conventional ground based harvesting equipment	95% of the coniferous harvested area will utilize conventional ground based harvesting equipment
			50	Joint FOS	All FOS's will be jointly prepared by active participants
		No decrease in the LTHL in the DFA	**51**	The percentage of blocks and roads (excluding BCTS tenures) assessed in which avoidable waste and residue accumulation levels are within the target range.	Annually, 100% of blocks and roads (excluding BCTS tenures) will fall within the target avoidable waste and residue accumulation levels. Annually, BCTS will report the % of blocks and roads which fall within the target range of avoidable waste and residue accumulation levels, and the actual amount of waste/ha on those that exceed the target range.
			52	The proportion (%) of area of height class two pine types to total cutblock area, in blocks harvested	November 15th, 2001 - March 31th 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 between will be in height class two pine inventory types
			32	See indicator #32	
			53	The percentage of the actual periodic cut control relative to target periodic cut control	Harvest volumes will not exceed 110% of the 5 year periodic cut control volume on each participant's licence
	Communities Participate in the Use and Management of the Forest	Diverse local forest employment opportunities exist in the DFA	**54**	Percentage of dollars spent locally on each woodlands phase in proportion to total expenditures	Logging/hauling: 80%, road construction and maintenance: 80%, silviculture: 8%, planning and administration: 50%
Element 5.3 Fair Distribution of Benefits and Costs Promote the fair distribution of timber and non-timber benefits and costs.	Fair Distribution of Benefits and Costs	Provide opportunities for a range of interests to access benefits	**55**	Value of tendered contracts in proportion to the total value of all awarded contracts on an annual basis	A minimum of 50% of the total value of contracts will be tendered on an annual basis

Fort St. John Pilot Project SFM Matrix

6.0 The SFM Performance Requirements: CCFM Criteria and CSA SFM Elements	Value	Objective		Indicator	Target
CCFM Criterion 6 – Accepting Society's Responsibility for Sustainable Development Society's responsibility for sustainable forest management requires that fair, equitable, and effective forest management decisions are made.					
Element 6.1 Aboriginal and Treaty Rights Recognize and respect Aboriginal and treaty rights.	Aboriginal and Treaty Rights	Recognition of Treaty 8 rights and respect aboriginal rights in development of plans	**56**	% conformance by participants to SFM elements pertinent to treaty rights (i.e., hunting, fishing and trapping) defined in Treaty 8	Participants will conform 100% to the SFM Indicators and Targets of the SFM Elements pertinent to sustaining hunting, fishing and trapping, as follows: Element 1.2 Species Diversity, and the Habitat elements indicators (5 - 9 inclusive), and Element 3.2 Water Quality and Quantity, and indicators (34 - 37 inclusive)
Element 6.2 Respect for Aboriginal Forest Values, Knowledge and Uses Respect traditional Aboriginal forest values and uses identified through the Aboriginal input process.	Aboriginal Forest Values, and Uses	Respect known traditional Aboriginal forest values, and uses	**57**	% of known traditional site-specific aboriginal values and uses identified during SFMP, FOS, FDP, or PMP referrals addressed in operational plans	100% of known traditional site-specific aboriginal values and uses identified during SFMP, FOS, FDP, or PMP referrals will be addressed in operational plans
Element 6.3 Public Participation Demonstrate that the public participation process is designed and functioning to the satisfaction of the participants	Opportunity for Public Participation	Satisfactory public participation processes	**58**	Public Review and Comment Process for the FSJPPR	Obtain PAG acceptance of Public Review and Comment Process; comply with Public Review and Comment Process
			59	Terms of reference (TOR) for the FSJPPR public participation process	Obtain PAG acceptance of TOR for public participation process; complete bi-annual review of TOR
			60	The percentage of timely responses to Public Inquiries	Respond to 100% of public inquiries regarding our forestry practices, that are additional to the Pilot Public Review and Comment processes, within one month of receipt
Element 6.4 Information for Decision-Making Provide relevant information to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems.	Information for Decision-Making	Relevant info used in decision making process is provided to PAG, FNAG, general public and affected parties	**60**	See indicator #60	
			61	Scientific/Technical Advisory Committee (STAC)	Establish and maintain a scientific technical committee until December 2003