



WESTERN FOREST PRODUCTS INC.

SFM Plan Dataset Summary

Port Alberni Forest Operation

Revised: April 25, 2016

CCFM Criterion 1: Biological Diversity

Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

1.1 Ecosystem Diversity

Conserve ecosystem diversity at the stand and landscape level by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Older seral stages by ecosystem type on the DFA	Older seral stages by ecosystem type are maintained	1.1.1	Ecosystem area by type	All ecosystem types by biogeoclimatic variant have greater than 50% of the productive forest area in mid, mature, and to old seral stages over time	- 5% by type	Operations Forester	GIS Analysis (after year end harvesting updated in Cengea)	N Variance: Y
The representation of commercial species on the DFA	Species conversion on the DFA is limited	1.1.2	Forest area by type or species composition	The three year movement in the representation of each commercial tree species (as expressed by the forest area by species composition) in the inventory is stable over time using 2012 as the baseline level	+/- 0.5% by species	Operations Forester	GIS Analysis	Y
The older age stands on the DFA	Older age stands on the DFA are gradually reduced	1.1.3	Forest area by Stand Age	81+ age stands are reduced annually by less than 2% of the productive forest area measured on a five year average	+0.25%	Operations Forester	GIS Analysis	Y
The variety of structure at the stand level	Habitat for selected focal species, including species at risk. A portion of the existing stand structure is retained	1.1.4	Degree of within-stand structural retention	The average within-stand retention level of all cutblocks harvested in the year is no less than 15% of the total area under prescription	-1%	Operations Forester	Variable Retention Tracking Spreadsheet	Y

Element: 1.2 Species Diversity								
<i>Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.</i>								
Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Habitat for focal species, including species at risk existing in the DFA	Maintain or increase habitat for selected focal species, including species at risk	1.2.1	Degree of habitat protection for selected focal species, including species at risk	The amounts (in ha) of habitat protected for selected focal species remains the same or increase year after year	Decrease by 1%	Operations Engineer	GIS Analysis	Y
Availability of suitable habitat for selected focal species, including species at risk existing in the DFA	To ensure the long-term availability of habitat for selected focal species including species at risk	1.2.2	Degree of suitable habitat in the long term for selected focal species, including species at risk	The amount (in ha) of potentially suitable habitat available within WHA, UWR, OGMA and NCLB remains the same or increases over time(measured every 5 yrs)	UWR – decrease by 1% MAMU – decrease by 2%	Operations Engineer	GIS Analysis	Next reported in 2018
Native tree species replacement on the DFA	Native tree species harvested on the DFA are replaced by native tree species	1.2.3	Proportion of regeneration comprised of native species	At minimum 99% of the trees planted will be native species based on a five year rolling average	-2.0%	Operations Forester	SPAR Database, Cengea Database	Y
Element: 1.3 Genetic Diversity								
<i>Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically modified organisms.</i>								
Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Genetically modified organisms on the DFA	Genetically modified organisms are not introduced in the DFA	1.3.1	The percent of the trees planted annually that is genetically modified organisms	The percent of the trees planted annually that is genetically modified organisms is 0%	None	Operations Forester	SPAR Database, Cengea Database	Y

Element: 1.4 Protected Areas & Sites of Special Biological or Cultural Significance
Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance. Identify sites of special geological, biological, or cultural significance within the DFA and implement management strategies appropriate to their long-term maintenance.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Sites of special geological, biological, or cultural significance in the DFA	Management of sites of special geological, biological, or cultural significance in the DFA	1.4.1	Proportion of identified sites with implemented management strategies	100% of identified sites have implemented management strategies	-1 site per year	Operations Forester	GIS Analysis, Site Plans, Harvest Instructions, Road Instructions, EMS Inspections	Y
Identified sacred and culturally important sites on the DFA	Provide protection for identified sacred and culturally important sites on the DFA	1.4.2	Protection of identified sacred and culturally important sites	100% of identified sacred and culturally important sites, (i.e., archaeological sites) are managed according to measures jointly developed by WFP and First Nations	-10%	Operations Forester	Cengea ForestOps, Site Plans, Harvest Instructions, Road Instructions, EMS Inspections	Y
Sensitive ecosystems in the DFA	Sensitive ecosystems are identified and their important qualities protected	1.4.A	% of Planners trained in the Sensitive Ecosystem Inventory in the previous 24 months	75%	-10%	Operations Forester	WFP Training Database	Y

CCFM Criterion 2: 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.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
The timely establishment of regeneration on the DFA	Harvested areas on the DFA are regenerated promptly	2.1.1a	Reforestation success	Hectares of forest land missing its milestone obligation annually is zero	None	Operations Forester	Government's Results Database	Y
The uptake and storage of carbon on the DFA	The uptake and storage of carbon is enhanced	2.1.1b	Reforestation success	Equivalent years of Not Sufficiently Reforested (NSR) expressed against the five year rolling average of annual area harvested is less than two years	+0.75 years	Operations Forester	Cengea Database	Y

Element: 2.2 Forest Ecosystem Productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
The productivity of the DFA	The productivity of the DFA is maintained over time	2.2.1a	Additions and deletions to the forest area	The net percent of forest area harvested each year in the DFA that is converted to permanent access structure (PAS) does not exceed 7%	+1%	Operations Forester	Cengea Database, EMS Post-Harvest Inspections	Y
Retention of forest land for growing trees	Avoid excessive conversion of forest lands into other uses	2.2.1b	Additions and deletions to the forest area	The net % of the DFA forest land that is annually converted to other uses by the licensee (Special Use Permits (SUP), etc.) is less than 0.001%	+0.0005%	Operations Forester	Info from Corporate Properties Staff	Y

Element: 2.2 Forest Ecosystem Productivity
Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
The production of timber on the DFA	To maintain the production of timber at the level defined by the Long Term Harvest Level (LTHL)	2.2.2	Proportion of the calculated long-term sustainable harvest level that is actually harvested	The 5-year average annual harvest level is 100% of the Long Term Harvest Level (LTHL)	+10% -5%	Operations Forester	MoFR Harvest Billing System	Y

CCFM Criterion 3: Soil and Water

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.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
The quality of forest soils in the DFA	Harvesting operations do not excessively disturb forest soils	3.1.1	Level of soil disturbance	The number of cutblocks harvested annually in which soil disturbance exceeds 5% of the net area to reforest is zero	None	Operations Forester	Harvesting, Road and Post-Harvest EMS Inspections	Y
The natural chemistry of forest soils in the DFA	The natural chemistry of forest soils is maintained	3.1.A	The percent of the DFA area where herbicides are applied	< 0.1% (annually)	+0.05%	Operations Forester	Cengea Database	Y
Wood debris available for soil processes on the DFA	Maintain sufficient amounts of wood debris for soil processes	3.1.2	Level of downed woody debris	> 15 m ³ per hectare (annually)	-5.0 m ³ per hectare	Operations Forester	Waste & Residue Surveys	Y

Element: 3.2 Water Quality and Quantity <i>Conserve water resources by maintaining water quality and quantity.</i>								
Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Water quality and quantity	Management operations do not endanger water quality and quantity	3.2.1	Proportion of watershed or water management areas with recent stand-replacing disturbance	The annual number of watersheds greater than 3000 hectares in size that have more than 30% of their area in the 0-20 years age class is 2 or less	+1 Watershed	Operations Forester	GIS Analysis	Y
The hydrological condition of damaged forested watersheds in the DFA	The hydrological condition of sensitive watersheds is improved	3.2.A	The average number of landslides originating from harvested areas in the high landslide frequency zone of Alberni Inlet East	The average number of landslides per year is 5.6 or less per 100 net hectares harvested from areas in the high landslide frequency zone (based on a ten year rolling average measured every 3 years)	+1 Landslide	Operations Engineer	G. Horel Matrix	Next report 2016
Water quality in community watersheds in the DFA	Water quality in community watersheds is maintained	3.2.B	The number of water-related non-compliances or non-conformances in community watersheds	Zero	None	Operations Forester	Central File – Audits, Inspections, Investigations, Cengea Database-ITS	Y
S4 fish streams in the DFA	Maintain or increase the level of protection for S4 fish streams	3.2.C	The % of stream area of S4 fish, streams that are buffered	The % of stream area of S4 fish, streams that is buffered within a 30 meter corridor in areas harvested annually is 80% or greater	-5%	Operations Engineer	Logged Hectares Register and streams manually measured	Y
S5 streams in the DFA	Maintain or increase the level of protection for non-ephemeral S5 streams	3.2.D	The % of stream length of S5 streams that are buffered	The %of stream area of S5 streams that is buffered within a 30 meter corridor in areas harvested annually is 60% or greater	-5%	Operations Engineer	Logged Hectares Register and streams manually measured	Y

CCFM Criterion 4: Role in 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.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
The uptake of carbon	The net rate of carbon uptake by the forest is positive over time	4.1.1	Net carbon uptake	The net annual carbon uptake on the DFA is positive	1 year negative	Operations Engineer	GIS and Cengea database	Y
The uptake and storage of carbon on the DFA	The uptake and storage of carbon is enhanced	2.1.1b	Reforestation success	Equivalent years of Not Sufficiently Reforested (NSR) expressed against the five year rolling average of annual area harvested is less than two years	+0.75 years	Operations Forester	Cengea Database	Y

Element: 4.2 Forest Land Conversion

Protect forest lands from deforestation or conversion to non-forests, where ecologically appropriate.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Retention of forest land for growing trees	Avoid excessive conversion of forest lands into other uses	2.2.1b	Additions and deletions to the forest area	The net percent of the DFA forest land that is annually converted to other uses by the licensee (Special Use Permits (SUP), etc.) is less than 0.001%	+0.0005%	Operations Forester	Corporate Properties/ Permit Staff	Y

CCFM Criterion 5: Economic and Social Benefits

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 sustainably to produce and acceptable and feasible mix of timber and non-timber benefits. Evaluate timber and non-timber forest products and forest-based services.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Timber and non-timber benefits	Timber and non-timber benefits are evaluated	5.1.1	Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA	Report on the corporate EBITDA	None	Operations Forester (Corporate Finance Dept.)	Corporate quarterly or annual reports	Y
Park and ecological reserve perimeters in the DFA	Operations in the DFA are planned to minimize risk to park and ecological reserve perimeters	5.1.A	The percent of park and ecological reserve perimeters where harvesting has occurred	The percent of the area within 100 meters of park and ecological reserve perimeters harvested over the previous five year period is 4.0 percent or less	+1%	Operations Engineer	GIS Analysis	Y
Access to recreation areas in the DFA	To maintain public access to the identified recreation areas	5.1.B	The level of public access to the recreation areas outlined in the recreation access inventory	The number of roads identified in the recreation access inventory that are accessible is 6 or more (inventory includes class of road by 2-wheel, 4-wheel and foot access)	None%	Operations Forester	Recreation Inventory, Deactivation Plans	Y
Mushroom habitat that is accessible in the DFA	Accessibility to mushroom habitat is maintained	5.1.C	The proportion of the DFA with accessible mushroom habitat	The proportion of the DFA within 200 meters of a maintained road and 20 years in age or greater is no less than 40% (measured every two years)	-10%	Operations Forester	GIS Analysis	Next reported in 2016

Element: 5.2 Communities and Sustainability
Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Community sustainability	Support community sustainability	5.2.1	Level of investment in initiatives that contribute to community sustainability	The annual level of donations (dollar and in-kind) to the community will exceed \$1000	-\$500	Operations Accountant	Accounting Records	Y
Employee skills	Develop employee skills	5.2.2	Level of investment in training and skills development	Annual level of investment in training and skills development for forest planning staff and associated contractor principles averages 5 person-days per year	-0.5 person-days	Operations Forester	WFP Training Database	Y
Employment	Provide employment	5.2.3	Level of direct and indirect employment	The annual level of direct and indirect employment is 2200 person-years or greater over a five year rolling average	-25 (1%)	Operations Forester	Cengea and PWC Report	Y
Aboriginal forest economy	Maintain the aboriginal forest economy	5.2.4	Level of Aboriginal participation in the forest economy	Eight contractual arrangements with aboriginal communities annually	-4 contracts	Operations Forester	Corporate Database	Y

CCFM Criterion 6: Society's Responsibility

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 title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights and treaty rights.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Aboriginal title and rights	Aboriginal title and rights are understood	6.1.1	Evidence of a good understanding of the nature of Aboriginal title and rights	Target evidence will be an update to annual employee training on Aboriginal title and rights	None	Operations Forester	WFP Training Database	Y
Aboriginal understanding of plans	Aboriginal understanding of plans is increased over time	6.1.2	Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans	Target evidence will be annual sample of correspondence with Aboriginal communities to gain acceptance of management plans	None	Operations Forester	Central File ("Green" Letters, comments, assessments, meetings, etc.)	Y
Areas where culturally important practices and activities occur	Areas where culturally important practices and activities occur are managed for or protected	6.1.3	Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur	Identified areas where culturally important practices and activities occur are managed and/or protected 100% of the time unless the First Nation or Provincial Governments decide otherwise	None	Operations Forester	GIS information, WFP Site Plans, Harvest & Road Instructions, EMS Inspections	Y

Element: 6.2 Respect for Aboriginal Forest Values, Knowledge & Uses <i>Respect traditional Aboriginal forest values, knowledge and uses as identified through the Aboriginal input process.</i>								
Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Aboriginal knowledge	Aboriginal knowledge provided is used and respected	6.2.1	Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values	Target evidence will be an example of information shared, or comments received by, or management of a culturally important resource or value for one Aboriginal community annually	None	Operations Forester	Central File ("Green" Letters, comments, assessments, meetings, etc.)	Y

Element: 6.3 Forest Community Well-being and Resilience <i>Encourage, co-operate with, or help to provide opportunities for economic diversity within the community.</i>								
Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Other forest users	Support other forest users	6.3.1	Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy	Annual target evidences will come from two or more of (but not be limited to): (1) volume production of shake and shingle, (2) hectares released for hogging, (3) hectares released for commercial firewood cutting (4) amount spent on road grading, (5) trail construction/rehabilitation (6) log sales to local purchasers	None	Operations Forester	LIMS, Cengea	Y
Worker safety	Existence of an active worker safety program	6.3.2	Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities	Annual target evidences will come from two or more of (but not be limited to): (1) the Medical Incident Rate report, (2) hazard alert report (3) general contractor training sessions (4) safety focus topics	None	Operations Forester	Safety Files, Corporate Tracking System/ Stats	Y
Worker safety	Worker safety improves over time	6.3.3	Evidence that a worker safety program has been implemented and is periodically reviewed and improved	SAFE Company Certification is maintained annually by WFP and its large contractors	2 contractors not registered	Operations Forester	Safety Files, Corporate Tracking System/ Stats	N Variance - Y

Element: 6.4 Fair and Effective Decision Making
Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
SFM Public participation process	SFM Public participation process works well	6.4.1	Level of participant satisfaction with the public participation process	The level of participant satisfaction as reported by the satisfaction survey is 3 or less (reported every two years)	A maximum of one consecutive survey with a satisfaction level of greater than 3.	WIWAG Facilitator	WIWAG Satisfaction Survey	Scheduled for 2016
Public participation capacity	Develop/improve public participation capacity over time	6.4.2	Evidence of efforts to promote capacity development and meaningful participation in general	Target evidence will be the listing of educational opportunities provided to the advisory group or general public annually	None	Operations Forester (with Assistance from WWAG Facilitator)	Central File, WIWAG Minutes, WIWAG Website	Y
Aboriginal participation capacity	Develop/improve aboriginal participation capacity over time	6.4.3	Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities	Annual target evidence will be a listing of efforts to engage willing Aboriginal communities in the SFM process	None	Operations Forester	Correspondence Files	Y

Element: 6.5 Information for Decision Making
Provide relevant information and educational opportunities to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interaction with forest ecosystems.

Value	Objective	#	Indicator	Target	Acceptable Variance	Reporting Responsibility	Monitoring & Measurement	Target Met? Y/N
Public education and knowledge	Increase/develop public education and knowledge over time	6.5.1	Number of people reached through educational outreach	The annual number of people reached through educational outreach is estimated to be greater than fifty	None	Operations Forester	Central File (Tours, Fall Fair, Open Houses, WIWAG minutes)	Y
Relevant information	Relevant information is provided	6.5.2	Availability of summary information on issues of concern to the public	Summary information on issues of concern to the public are posted annually on the WIWAG website	None	Operations Forester	WIWAG Website	Y