

ANNEX 4 - Performance Standards (Working Version)

CCFM Criterion 1. Biological Diversity										
CSA SFM Element 1.1 Ecosystem Diversity: Conserve ecosystem diversity at the landscape level by maintaining the variety of communities and ecosystems that occur naturally in the Defined Forest Area (DFA)										
Value	Objective	Indicator	Target ¹	Means to Identify Target ²	Legal / Policy Requirements	Means of achieving Objective and Target ²	Monitoring and Measurement	Reporting	Acceptable Variance	Response
1.1.1 Landscape scale biodiversity	1.1.1.1 Maintain biodiversity by retaining the full range of cover types and seral stages ³	Area of old, mature, and young forest in each DFA subunit ⁴ by cover class ⁵	Over the 200 year planning horizon; a) Gross landbase: greater than X% old forest, greater than Y% mature plus old forest, less than Z% young forest; and b) Net landbase: greater than X% old forest, greater than Y% mature plus old forest, less than Z% young forest Note: Old forest retention shall include the full natural range of ages	Targets and seral stage definitions shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. Productivity class)	Planning Standard	Spatial Harvest Sequence (SHS)	Regular updates to inventory	FMP: Tables of indicators (values and targets) at 0, 10, 50, 100 and 200 years. Maps of indicators at 0, 10 and 50 years Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report [Compare time 0 of previous FMP to Classified Landbase (CLB) of new FMP]	Area (ha) of old and mature forests in each DFA subunit by cover class shall be between 90% and 100% of target areas. Area of young forest in each DFA subunit by cover class shall not exceed 110% of target area	Adjust strategies in subsequent Forest Management Plan (FMP)
	1.1.1.2 Maintain biodiversity by avoiding landscape fragmentation	a) Range of patch ⁶ sizes by subunit and entire DFA	a) A distribution of harvest area sizes that will result in a patch size pattern over the 200 year planning horizon approximating patterns created by natural disturbances	Targets shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. productivity class)	Planning Standard	Spatial and temporal harvest planning. Patch size distribution targets are set for forest patches less than 20 years old	Regular updates to forest inventory	FMP: Tables of area of forest in each patch size class by subunit at 0, 10, and 50 years (or end of first rotation). Maps of patch size classes at 0, 10, and 50 years, (or end of first rotation) Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	a) At the end of the 10-year FMP term the target distribution is achieved; or demonstrated progress to achieving target in one rotation where the pattern has deviated significantly from the target	Adjust strategies in subsequent FMP
		b) Area of old interior forest ⁷ of each cover class by subunit and entire DFA	b) Area of old interior forest will not be less than X% of each cover class over the next 200 years	Targets shall be based on sound science, ecological considerations, wildlife zones, and disturbance regimes. Target shall ensure representation of natural range of ecosystem attributes (e.g. productivity class)	Planning Standard	Spatial and temporal harvest planning	Regular updates to forest inventory	FMP: Maps and Tables of indicator at 0, 10, and 50 years Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	b) Target is achieved for at least 80% of the planning period with variance not exceeding 20% below target	Adjust strategies in subsequent FMP
	1.1.1.3 Maintain biodiversity by minimizing access	a) Open all-weather forestry road density by subunit	a) Less than X km/km ²	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard	Develop a strategy that coordinates access with other resource users, spatial/temporal sequencing of harvest, road closures and decommissioning. (SHS and long-term corridor access plan)	Regular updates to forest inventory	FMP: Table of road density by subunit at 0 and 10 years. Map of existing and proposed open and closed all weather roads. Report forestry roads and total (all users) roads Performance: Stewardship Reports	A variance not exceeding +/-20% must be achieved	Adjust strategies in subsequent FMP
		b) Open seasonal / temporary forestry road length by DFA	b) Less than X km by subunit	Targets shall be based on sound science, ecological considerations, harvest planning, wildlife zones, and social values	Planning Standard	Road construction, maintenance and reclamation activities	Road plan (Operating Ground Rule) OGR 11.2	Performance: Stewardship Reports	A variance not exceeding +/- 20% must be achieved	Adjust strategies in subsequent AOPs

ANNEX 4 - Performance Standards (Working Version)

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	1.1.1.4 Maintain plant communities uncommon in DFA or province	Area or occurrence of each uncommon plant community within DFA	X% of identified community will be maintained (separate target for each identified community)	Geographic Information System (GIS) analysis, Alberta Vegetation Inventory (AVI), ecosite phases, Alberta Conservation Information Management System (ACIMS) plant community classification and tracking list. Predict and identify occurrence of uncommon plant community	Planning Standard	Coordinating with other resource users, spatial planning of harvest and road construction, OGR	Regular updates to inventory	FMP: Table with descriptive list and targets. Map(s) displaying known locations of uncommon plant communities. Performance: Stewardship Reports	At the end of the 10-year FMP term the target is achieved	Adjust strategies in subsequent AOPs
	1.1.1.5 Maintain unique habitats provided by wildfire and blowdown events	a) Area of unsalvaged burned forest	a) Live trees: Retain all unburned trees in green islands and retained patches recognizing timber condition, access, non-timber needs	Targets based on "Fire Salvage Planning and Operations - Directive No. 2007-01" Ensure consistency with FireSmart objectives	"Fire Salvage Planning and Operations - Directive No. 2007-01"	Salvage planning	Organization reports, air photo interpretation, ground surveys, post harvest assessments	FMP: Table and map of natural disturbances within the last 10 years -salvaged and unsalvaged. Report area (ha). Performance: Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs
		b) Area of unsalvaged blowdown	b) In areas of significant blowdown greater than X% will be left unsalvaged	Targets are to be based on sound science, ecological considerations and disturbance regimes	Planning Standard	Salvage planning	Inventory updates	Performance: Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent AOPs
	1.1.1.6 Retain ecological values and functions associated with riparian zones	Compliance with OGR	Consistent with OGR	OGR	Federal Fisheries Act, Water Act	Planning, TSA, OGR	Organization reports, air photo interpretation, ground surveys, post harvest assessments or other existing compliance monitoring systems	Performance: Stewardship Reports	No variance	Immediate remedial action and / or administrative penalty
1.1.2 Local/stand scale biodiversity	1.1.2.1 Retain stand level structure	a) % area / volume / stems residual structure (both living and dead), within a harvest area, representative of the status (live / dead), sizes, and species of the overstorey trees by subunit and entire DFA	a) A combination of single stems, clumps, and islands comprising X% of the harvested area / volume / stems within a subunit Note: A wide range in variability in harvest area-level retention within a subunit is desired as long as the target level is achieved	Wildlife zones, roadside vegetation screens, recreational values, aesthetics, local knowledge, ACIMS , Alberta Biodiversity Monitoring Institute (ABMI) and Fisheries and Wildlife Management Information System (FWMIS)	Occupational Health and Safety Act, Forest and Prairie Protection Act	Implement residual structure retention strategies and OGRs	Organization reports, air photo interpretation, ground surveys, post harvest assessments	Performance: Stewardship Reports	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent FMP
		b) Percentage of harvested area by subunit with downed woody debris ⁸ equivalent to preharvest conditions	b) X% of harvest areas having downed woody debris retained on site	Assess preharvest downed woody debris condition by subunit or stand level average	Planning Standard	Organization developed standards	Organization developed during FMP planning	Performance: Stewardship Reports , report % of harvest areas with retained downed woody debris	FMP determined	Adjust strategies in subsequent FMPs
	1.1.2.2 Maintain integrity of sensitive sites	Sensitive sites (e.g. mineral licks, major game trails) by subunit and entire DFA	Strategies to maintain consistent with provincial guidelines / OGR	Local knowledge, ACIMS , ABMI	Planning Standard	Organization developed standards for sensitive site protection, OGRs 7.7.4	Organization reports, air photo interpretation, ground surveys	Performance: Stewardship Reports	None	Adjust strategies in subsequent AOPs

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	1.1.2.3 Maintain aquatic biodiversity by minimizing impacts of water crossings	Forestry water crossings in compliance with Code of Practice for Water Course Crossings within each subunit	Designs meet standards of the Code of Practice for Water Course Crossings	Code of Practice for Water Course Crossings: Sections 7 9 and Schedule 2	Code of Practice for Water Course Crossings	Road construction, maintenance and reclamation activities	Road plan OGR 11.2	Performance: Stewardship Reports: AOP, number of crossings by type within each subunit by compliance status	None	Act immediately to eliminate problems and adjust strategies in subsequent AOPs
CCFM Criterion 1. Biological Diversity										
CSA SFM Element 1.2 Species Diversity: Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained throughout time										
1.2.1 Viable populations of identified plant and animal species	1.2.1.1 Maintain habitat for identified high value species (i.e., economically valuable, socially valuable, species at risk, species of management concern)	<p>a) Number of hectares of primary and secondary habitat from the fRI Grizzly Bear model, as measured at time 0 (CLB effective date) by DFA;</p> <p>b) Percent change in the Barred owl potential breeding pairs and Resource Selection Function (RSF) value from (CLB effective date) by DFA;</p> <p>c) Percent change in American marten habitat suitability index from (CLB effective date) by DFA;</p> <p>d) Percent change in relative abundance value of five songbird species (Canada Warbler, Black-throated Warbler, Brown Creeper and Ovenbird. Also Bay-Breasted Warbler or /Varied Thrush (depending on FMA) from (CLB effective date) by DFA; and</p> <p>e) Cold Water Fish</p>	<p>a) Maintain or increase the number of hectares of primary and secondary habitat from the fRI Grizzly Bear model, as measured at time 0;</p> <p>b) Maximum 15% reduction in the breeding pairs indicator over the 200 year planning horizon and 15% reduction in the RSF indicators over the 200 year planning horizon;</p> <p>c) Maximum 15% reduction in the indicator over the 200 year planning horizon;</p> <p>d) Maximum 15% reduction in the indicator over the 200 year planning horizon; and</p> <p>e) TBD</p>	<p>Habitat models (provided by the Government of Alberta (GoA)).</p> <p>Based on sound science, ecological considerations, wildlife zones, Committee on the Status of Endangered Wildlife in Canada (COSEWIC) list, provincially listed species, ABMI, ACIMS, Recovery plans, government priorities, public consultation, habitat suitability analysis, literature review, observation data, local and traditional knowledge</p>	Recovery plans for species at risk, Federal Species at Risk Act	Harvesting plans, road construction, OGR, planning and implementation, adherence to provincial wildlife guidelines Adhere to SHS	Updates to vegetation inventory and habitat modelling	<p>FMP: a) Table and maps of current (time zero) and future (10 and 20 years) landscape condition for Core and Secondary habitat zones;</p> <p>b) Tables of breeding pairs and RSF at 0, 10, 20, 50, 100 and 200 years and maps of RSF value and breeding pairs at 0, 10, 20 and 50 years;</p> <p>c) Tables of habitat suitability at 0, 10, 20, 50, 100 and 200 years and maps of habitat suitability at 0, 10, 20 and 50 years;</p> <p>d) Tables of relative abundance at 0, 10, 20, 50, 100 and 200 years and maps of relative abundance at 0, 10, 20 and 50 years; and</p> <p>e) TBD</p> <p>Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)</p>	At the end of the 10-year FMP term the target is achieved or exceeded	Adjust strategies in subsequent FMP
CCFM Criterion 1. Biological Diversity										
CSA SFM Element 1.3 Genetic Diversity: Conserve genetic diversity by maintaining the variation of genes within species										
1.3.1 Genetic integrity of natural tree populations	1.3.1.1 Retain "wild forest populations" for each native tree species in each seed zone through establishment of in-situ reserves by Alberta and timber disposition holders	Number and area (ha) of in-situ genetic conservation areas	<p>Number (X) of genetic conservation areas for each seed zone</p> <p>To be established by the Government of Alberta (GoA) in accordance with the Alberta Forest Genetic Resources Management and Conservation Standards (FGRMS)</p>		Timber Management Regulation (TMR) 144.2(1). As directed by the FGRMS	Conservation areas are designated by a Protective or Consultative Notation (PNT, CNT)	AVI updates, ground or air checks to confirm status. FMP planning and Stewardship Reporting.	<p>FMP: Table showing number of genetic conservation areas required in each seed zone and number provided in DFA. Map showing locations of genetic conservation areas.</p> <p>Performance: Stewardship Reports</p>	At the end of the 10-year FMP term the target is achieved or exceeded.	Adjust strategies in subsequent FMP.
	1.3.1.2 Retain wild forest genetic resources through ex-situ conservation	Number and composition of forest tree seed populations established in seedbanks, clone banks or trials that are satisfactory to GoA	<p>Active conservation program for all Controlled Parentage Program plan species and other species in cooperation with Alberta</p> <p>To be established by GoA based on adequate representation of native tree species in conservation efforts to genetic loss within and among seed zones</p>	<p>GoA to approve legitimate sources of ex-situ seed and project targets of volume of seed required. Compare cumulative collection of ex-situ seed from various sources to projected targets from GoA, annually, for the tree species desired or determined to be at risk</p>	TMR 144.2(1). As directed by FGRMS	FGRMS and GoA/Industry Genetics Cooperatives	Conservation activities identified in FMP as per FGRMS	<p>FMP: Table and map showing number of provenances, genotypes and seedlots and their origin within the DFA</p> <p>Performance: Stewardship Reports</p>	No variance from targets as set by GoA is anticipated. Adjustment to targets and objectives are allowable as more research and development bring new data and parameters forward	GoA will direct any required amendments or adjustments to targets

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CCFM Criterion 1. Biological Diversity										
CSA SFM Element 1.4 Protected Areas: Respect protected areas identified through government processes										
1.4.1 Areas with minimal human disturbances within managed landscapes	1.4.1.1 Integrate trans boundary values and objectives into forest management	Stakeholder consultation	Ongoing consultation with relevant protected areas agencies	Link to consultation objective in Planning Standard or other existing consultation processes	Planning Standard	Management planning	Documentation of consultation processes	Performance: Stewardship Reports	None	Adjust strategies in subsequent FMP
CCFM Criterion 2. Ecosystem Productivity										
CSA SFM Element 2.1 Ecosystem resilience										
2.1.1 Reforested harvest areas	2.1.1.1 Reforest all harvested areas	Annual % of openings that: a) meet or exceed the Reforestation Standard of Alberta (RSA) establishment survey minimum stocking and species composition standards for the declared regenerated yield stratum; b) meet or exceed the RSA establishment survey minimum stocking and species composition standards for an alternate regenerated yield stratum; and c) do not achieve the RSA establishment survey minimum stocking and/or species composition standards for any regenerated yield strata and are re-treated within one year. Indicators a, b and c are to be reported separately	The sum of Indicators a, b and c = 100% of openings	Direction from Alberta	TMR 141.6(1) and 141.6(2); RSA	Implementation of silviculture strategies that ensure the target stocking and species composition is achieved for the opening	RSA establishment survey protocols	Performance: ARIS, AOP, Stewardship Reports	None	Adjust silviculture strategies
	2.1.1.2 Meet or exceed the C and D Mean Annual Increment (MAI) standard for the population of openings surveyed in a given quadrant	Summed difference between target and actual C and D MAIs for openings surveyed in a five year quadrant, as reported to ARIS	100% of target	Direction from Alberta	TMR 141.7(1) and 141.7(2); RSA	Implementation of silviculture strategies that ensure the target productivity is achieved for the population of openings	RSA performance survey protocols	Performance: ARIS, AOP, Forest Management Branch, Stewardship Reports	Meet or exceed the target C and D MAI for the DFA	Adjust silviculture strategies
2.1.2 Maintenance of forest landbase	2.1.2.1 Limit conversion of productive forest landbase to other uses	Amount of change in forest landbase	A program to maintain the forest landbase	Forest inventory and land use data	Planning Standard	Maintain current forest cover inventory and land use updates	Inventory and land use systems	Performance: Stewardship Reports	Report actual	Adjust net landbase projections in next TSA
	2.1.2.2 Recognize lands affected by insects, disease or natural calamities	Amount of area affected	Area (ha) affected by significant outbreaks, infestations, natural calamities	Forest health surveys, inventory updates	Planning Standard, Alberta Forest Health Strategy and Shared Roles and Responsibilities between GoA and the Forest Industry	Maintain up-to-date information	Annual surveys	Performance: AOP and Stewardship Reports	Report actuals	Event specific
2.1.3 Control invasive species	2.1.3.1 Control invasive plants	Invasive plant program	Invasive plant program in place and implemented	Field inventories	Weed Management in Forestry Operations Directive 2001-06	Co-operative programs	Field inventories	Performance: Inspections summarized in Stewardship Reports	Report actuals	Improve invasive plant program

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CCFM Criterion 3. Soil and water										
CSA SFM Element 3.1 Soil quantity and quality										
3.1.1 Soil productivity	3.1.1.1 Minimize impact of roading and bared areas in forest operations	Compliance with OGRs	Less than 5%	Direction from Alberta	OGRs and Soils Guidelines	Effective planning and supervision of operations	Field inspection reports and audits	Performance: Inspection reporting, Stewardship Reports	None	Immediate remedial action to correct
	3.1.1.2 Minimize incidence of soil erosion and slumping	Incidence of soil erosion and slumping	Complete compliance	Direction from Alberta	OGRs and Soils Guidelines	Effective planning and supervision of operations and adherence to relevant OGRs	Field inspection reports and audits	Performance: Inspection reporting, Stewardship Reports	None	Immediate remedial action to correct
CCFM Criterion 3. Soil and water										
CSA SFM Element 3.2 Water quantity and quality										
3.2.1 Water quantity	3.2.1.1 Limit impact of timber harvesting on water yield	Forecast impact of timber harvesting on water yield.	a) Water yield = 15% (Equivalent ECA = <30%) b) Zero Water Act penalties, Complete compliance with FMP	ECA and Water Yield Models Water Strategy and local needs	Water Act, Planning Standard	Adherence to forecast harvest sequence and relevant OGRs	Report on area (ha) harvested compared with planned harvest area	a) Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP) b) Stewardship Reports	< 20 percent SHS variance	Adjust harvest pattern if problems arise
3.2.2 Effective riparian habitats	3.2.2.1 Minimize impact of operations in riparian areas	Riparian buffers maintained as outlined in OGRs	Complete compliance	Direction from Alberta	OGRs	Effective planning and supervision of operations	AOPs, Stewardship Reports	Performance: AOP, Stewardship Reports	None	Immediate correction and / or administrative penalty
CCFM Criterion 5. Multiple Benefits to Society										
CSA SFM Element 5.1 Timber and non-timber benefits										
5.1.1 Sustainable timber supplies	5.1.1.1 Establish appropriate AACs	Process described in Annex 1 is followed and standards are met	Complete compliance	Consultation in planning process	Forests Act and TMR	Effective implementation of planning process	Multiple means: Timber Production and Revenue System (TPRS), ARIS, AOPs, Stewardship Reports, filed inspection	Performance: 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	Issue specific	Adjust AAC using most current and relevant information
CCFM Criterion 5. Multiple Benefits to Society										
CSA SFM Element 5.2 Communities and Sustainability										
5.2.1 Risk to communities and landscape values from wildfire is low.	5.2.1.1 To reduce wildfire threat potential by reducing fire behaviour, fire occurrence, threats to values at risk and enhancing fire suppression capability	a) Percentage reduction in Fire Behaviour Potential area (ha) within the FireSmart Community Zone b) Percentage reduction in Fire Behaviour Potential area (ha) across the DFA now and over the planning horizon	a) Reduce the area (ha) in the high and very high Fire Behaviour Potential rating within FireSmart Community Zones b) Reduce the area (ha) in the high and very high Fire Behaviour Potential rating across the DFA	Fire Behaviour Potential and Fuel Grid Assessment (Annex 3 Report Provided to FMA Holder) FMA Holder assessment of the SHS developed using recommendations from Annex 3 Report	Planning Standard	SHS, thinning, partial harvest techniques, prescribed burns, FireSmart Treatments	AOPs, Compartment Assessments	FMP: Maps Fire Behaviour Potential, Fuel Grid, Historical Wildfires and Natural Subregions. Performance: Stewardship Reports - Report on actual harvested area a) and b)	Issue specific	Adjust harvest sequence
5.2.2 Provide opportunities to derive benefits and participate in use and management	5.2.2.1 Integrate other uses and timber management activities	Extent of various uses	To be determined in the planning process	Consultation and co-operation	Legislation and policy	Effective implementation of plans	AOPs, Compartment Assessments	Performance: Stewardship Reports	Issue specific	Adjust activities
5.2.3 Forest Productivity	5.2.3.1 Maintain Long Run Sustained Yield Average	Regenerated stand yield compared to natural stand yield	No net decrease from the natural stand productivity	FMP TSA	Planning Standard	Effective implementation of plans	Stewardship Reports	Performance: TSA 5 year - Stewardship Report (None) 10 year - Stewardship Report (Compare time 0 of previous FMP to CLB of new FMP)	Report actual	Adjust AAC using most current and relevant information

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CCFM Criterion 6. Accepting society's responsibility for sustainable development										
CSA SFM Element 6.1 Indigenous and treaty rights and Indigenous forest values										
6.1.1 Compliance with government regulations and policies	6.1.1.1 Implement Indigenous Consultation Plan	Meet Alberta's current expectations for Indigenous consultation	Consult at the community level with designated representatives of affected Indigenous communities	The Government of Alberta Indigenous Consultation and Policy Guidelines	Planning Standard	Effective implementation of Indigenous Consultation Plan		Performance: Stewardship Reports or as required in Indigenous Consultation Plan	None	Adjust activities
CCFM Criterion 6. Accepting society's responsibility for sustainable development										
CSA SFM Element 6.2 Public participation and information for decision-making										
6.2.1 Meaningful public participation is achieved	6.2.1.1 Implement Public Participation Process	Meet expectations of Section 5 of CSA Z809-02	To be determined in the planning process	Consultation	Planning Standard	Effective implementation of Public Participation Process		Performance: Stewardship Reports or as required in Public Participation Process	None	Adjust activities

Footnotes:

- [1] "X" variable in target description to be determined by the FMP planning process.
- [2] Items noted under the "Means to Identify Targets" and "Means of Achieving Objectives and Targets" are intended as suggestions and not meant to limit potential approaches. The list is not comprehensive or mandatory.
- [3] Seral Stage: Seral stages definitions should include the following categories: Initiation, Establishment, Aggradation (stem exclusion), Mature, and Old (Song 2002, Ecological Basis for Stand Management in Alberta). Old forest is defined as stands 40 years older than MAI culmination age.
- [4] Subunit: any acceptable stratification of the DFA. Delineation of planning "subunits" for the DFA will be made during FMP planning. However, delineation should reflect ecological considerations. Planning subunits may correspond to planning compartments.
- [5] Cover-classes: definition will be developed through FMP planning. In general, cover-class is a coarser grouping than the cover type (AVI stand label) but provides finer resolution than the cover groups (C, CD, DC, D) and will reflect leading species and mixedwood types.
- [6] Patch: a stand of forest in the same seral stage, and not split by a linear feature greater than 8m wide. Linear features in this definition include roads, pipelines, powerlines, and rivers, but does not include seismic lines.
- [7] Interior forest: a forested area greater than 100 hectares in size located beyond edge effect buffer zone [7.2] along the forest edge [7.1]. For interior forest objective use a common age definitions for all cover classes to prevent breaking up forest patches that have a common origin date.
- [7.1] Forest edge: any of the following: a) a linear disruption in forest cover greater than 8m in width, or, b) the line along which forest seral stage class changes.
- [7.2] Edge effect buffer zone: 60 m where adjacent area is non-forested or less than 40 years old; 30 m where adjacent forest stand is >= 40 years and less than mature forest; 0 m where adjacent stand is mature forest.
- [8] Downed woody debris: wood lying at an angle of less than 45 degrees from the ground and having a diameter greater than 7.5 cm.
- [9] Wild: genetic materials of native species originating from natural regeneration ([FGRMS](#)).