C5 FOREST MANAGEMENT PLAN 2006–2026

APPENDIX 5B. PLANNING ISSUES/RESPONSE TO FEEDBACK FROM PUBLIC CONSULTATION MATRIX

Planning Issues

Human interest in and use of the C5 landscape, particularly by European settlers during the last two centuries, has resulted in significant land use change within the forest management unit (FMU). Resource extraction, land conversion, accommodation of multiple use activities and other factors have given rise to various land and resource issues. Different instruments and mechanisms have been adopted by governments and communities to identify and address existing and emerging issues. Some issues have been resolved, others are being "managed", while others continue to persist with passing time. This plan will attempt to address issues within the C5 planning area that coincide with the purpose, focus, and scope of the planning exercise. Some issues will be more appropriately addressed through other processes.

What follows is list of substantive issues thought to be applicable to the C5 planning exercise. Issues have been presented in general terms rather than in a detailed or comprehensive manner. Input provided by the Crowsnest Public Advisory Committee is identified in italics. The issues are **not** listed in order of importance.

1. *The Rocky Mountains and foothills are tremendously important as a watershed. The C5 headwaters furnish clean water to meet wide-ranging (ecosystem and human) needs. Surface and sub-surface water resources (both quantity and quality) are easily threatened by poor operations/practices and ill-informed land use decisions.*

2. *Plant and animal life forms – known and unknown, seen and unseen – that are found within the C5 are vulnerable to human disturbance. Some of these species have been stressed, others are being threatened. Maintaining viable populations of the different life forms, and the habitat that supports them, will be challenging given the competing demands that are being placed on the land base.*

3. The consumption and harvesting of renewable resources can jeopardize ecosystem integrity or may exceed a resources renewal/regeneration capacity. Are the different consumptive and extractive activities that are occurring within the C5 sustainable at current use levels? Are the right management systems/methods being used for these activities?

4. The C5 landscape – owing to its natural features, biodiversity, and aesthetic qualities – possesses high recreation potential. Much of the C5 is highly accessible and lies in close proximity to a large urban population base. An extensive system of roads, trails, and tracks is bringing large numbers of people into the front country and backcountry. Intensive recreational use and poorly managed recreational activities will inevitably result in undesirable impacts and bring about a degradation of the very environment that attracts recreationists to the region. *Random camping, a highly popular activity, is getting "out of control" in some areas within the C5.* Roads and trails that are poorly constructed or wrongly located are known to cause environmental impacts and pose a threat to human safety. *How should recreational access and recreational activities be managed in the future? Should all industrial access be made available for public use?*

5. *Industrial activities and commercial developments that occur on the C5 landscape bring economic prosperity to the region. However, these activities, when improperly located or poorly managed, are destructive to the ecosystem and impinge/conflict with other land uses and activities.* Does an appropriate balance of land uses exist within the C5 forest management unit?

6. *The C5 land base and its resource values are finite. Because neither exists in inexhaustible quantities, difficult choices need to be made on the allocation of the land base and its resources and in establishing limits for different uses.* All conceivable uses/activities cannot be accommodated on a finite land base. Some ecosystem elements cannot cope/survive if existing use levels are maintained or increase. *Cumulative effects considerations require that informed decisions be made of how much of an activity can be accommodated in a certain location, for what period of time, at what use level. Incremental growth without limits will eventually exceed ecological thresholds.*

7. *A healthy ecosystem is one in which the ecosystem's function and structure (i.e., processes) have not been compromised. When land uses and human activities exceed an ecosystems carrying capacity and assimilative capacity, ecosystem stress and eventual collapse are inevitable. Where natural ecosystem processes and disturbance regimes (e.g., fire) have been altered or suppressed, problems have been created that require management remedies.*

8. The biodiversity of southwestern Alberta is unusually rich. Can such biodiversity be maintained while accommodating the many different human activities that presently occur in the region? How do we manage the landscape to maintain biodiversity and a landscape mosaic? A growing human population will inevitably apply greater and greater pressure on the natural heritage resources found in the C5.

9. *Linear corridors are becoming barriers that curtail the free movement wildlife species. As these corridors expand and become more intensely used, habitat islands are created.* Related to this is the ongoing fragmentation of land, which is resulting in a loss of habitat connectivity.

10. Timber harvesting, following traditional sustained-yield harvest approaches, typically fails to adequately consider many of the resource/ecological interactions within the forest. How should commercial logging take place such that pertinent resource values, human activities, and ecological processes are recognized? What will sustainable forest management look like in the C5 forest management unit?

11. Domestic livestock grazing within natural areas is scientifically defensible if properly managed. Effective grazing regimes and livestock management methods are needed to minimize any undesirable impacts associated with this land use.

12. Have the irreplaceable palaeontological, archaeological and historic/cultural resources that exist within the C5 been identified, and are they sufficiently protected and interpreted for the benefit of the public?

13. Are users of the C5 sufficiently informed and educated so that they can act as responsible stewards when pursuing their interests on the land base?

14. *Land use disturbance may result in undesirable impacts (e.g., erosion, introduction of weeds, loss of habitat, visual scars, etc.).* How can the effects of disturbance be minimized or avoided? Are existing decision-making processes and reclamation and restoration programs adequate?

15. *Environmentally significant, rare, sensitive and threatened resources are found in the forest management unit. Are adequate safeguards in place to protect these features, species, landforms, and processes? Is critical wildlife habitat secure?*

16. *Are existing government legislation and policy instruments conducive to managing the C5 forest management unit on a sustainable basis?*
17. *Are existing monitoring and adaptive management approaches adequate?*
18. *Are the information and technologies needed to manage public land and resources available?*
19. *Should the C5 forest management unit be managed more on a landscape/ecosystem basis or a landscape component basis?*
20. *How are adjoining land uses affecting the C5 forest management unit and how might land uses that occur within the C5 affect adjacent lands, resource values and human activities?*

Overview

Appendix 5 consists of two documents:

Appendix 5a contains Criteria 1-6, which comprise the C5 FMP Matrix. The matrix was a transitory document developed by the Planning Team to establish a management framework and an initial series of proposals for managing the C5 forest. The version of the matrix included here contains revisions that were made in response to CrowPAC, Quota Holder and interest group feedback.

Appendix 5b identifies the planning issues and how the Planning Team responded to specific CrowPac, Quota Holder and public interest group comments that were received from March–June 2004. Stakeholder input was received after participants reviewed an earlier version of the C5 FMP Matrix.

<u>Note</u>: The contents of the *C5 Forest Management Plan 2006–2026* takes priority over wording in the matrix.

C5 FMP Matrix – Response to Feedback Received Through the Public Consultative Process

(26 October 2004)

A. Input from CrowPAC and Quote Holders on the draft matrix (page 1).

B. Input from other stakeholders and interest groups on the draft matrix (page 25).

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
	Criterion (1) Element (1.1) Objective (1.1.1)	"Cut-and-paste" proposal/statement from draft C5 FMP along with feedback received from CrowPAC and/or Quota Holders (QHs)	• Factors considered by the planning team. • Relevant background information. • Related issues.	• Proposed wording change. • Follow-up actions to be taken to bring matter to closure.
A. Input from CrowPAC and Quote Holders on the draft matrix.				
Criterion No. 1				
1.	1.1.1.1 Strategy a-1	a-1) *To maintain the species composition found in the forest, all harvested sites shall be reforested to reflect the species mix and species proportions that existed before harvesting occurred. The original species mix and proportion can be achieved (balanced out) over the subregion if not achievable at the cutblock level at the end of each quadrant period.* QHs – This is extremely difficult to implement and is not manageable. Horrendous exercise to track change at the species level – even hard to do for cover groups: C, CD , DC. This might make sense for Alpine Fir and Whitebark Pine. Doesn't make sense for Lodgepole Pine, Spruce and Balsam Fir.	•CrowPAC and C5 Working Group want to retain "species" proportions (not the four provincial strata of C, CD, DC, D). •Upon consideration, subregional units are too large. •QHs need to reforest in accordance with what was there before – i.e., to original species. Strata – For the C5 FMP, "strata" refers to 4 conifer species or cover classes that are based on leading species in the Alberta Vegetation Inventory: Alpine Fir (Fa), Douglas Fir (Fd), Lodgepole Pine (Pl or Px) and White or Engelmann Spruce (Sx). In addition, the broader designation of CD conifer-dominated mixedwoods is included. For the C5 FMU, the categories of DC	Rewrite To maintain the species composition found in the forest, all harvested sites should be reforested to reflect the cover class[1] proportions that existed before harvesting occurred. The original species mix and proportion can be achieved (balanced out) on a compartment basis at the end of each quadrant period. Adopt following footnote: [1] Cover class - *The approved strata-specific regeneration standards (SSRS) for the C5 are by definition: Fa, Fd, Pl , Sx and CD.*

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
			and D are not recognized because deciduous-leading stands in the AVI are not part of the net land base. This redefinition of reforestation strata is based on ASRD's Forest Management Branch Directive No 2004-01 dated May 1, 2004. On page 6, the Directive reads. "For Operators with approved strata-specific regeneration standards (SSRS), strata declarations and maintenance will be carried out as described in this directive, but on the basis of the operator's *strata* definitions rather that the four provincial strata."	
2.	1.1.1.1 Target a-3	a-3) *Area of 4 seral stages in 5 subregions for both the gross and net land base over a 200-year time period, as defined in Appendix 3.* QHs – Why are separate targets being set for both the gross and net land base? Why not focus on the "active" land base?	The intent is to emulate the natural mix of seral stages and cover groups over the entire landscape (i.e., the gross land base). By setting separate targets for the gross and net landbase, the harvest of certain seral stages/cover types can be compensated by over-representation on the inoperable land base. Otherwise, the active and inactive land bases would need to have equal amounts. Separate targets is to the advantage of the operator.	No change
3.	1.1.1.2 Target a	a) *Minimum hectares of early and late old forest "interior forest" for each cover group in each subregion as defined in Appendix 4.* QHs – Why are "old forest" interior forest targets being set? What is their purpose?	The reason is that some species (flora and fauna) require interior forest, and this value (i.e., old growth interior forest) is at risk with current land uses.	No change
4.	1.1.2.1 Target a	a) *0 – 5% volume of standing trees shall be left within cut blocks (with an average of 3% across a disposition holder's timber license or across blocks within Commercial Timber Permits)* QHs – 1) Is the 0-5% volume of standing trees never to be	1) Yes – never to be harvested. During the next (subsequent) harvest period, retention will again need to be observed. 2) No, the science indicates a range of 10–30+% retention. 0-5% is a compromise that nobody is particularly happy with.	Rewrite 0 – 5% volume of standing trees shall be left within cut blocks (with an average of 3% across assigned quota holder compartments)

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		harvested? 2) Is there a scientific basis for 3%? 3) 0% is preferred. 4) Standing green trees will blow over. 5) Why leave green merchantable trees when you can leave snags or green un-merchantable trees? 6) Sunpine has used 1% (actual % is related to block size).	3) Understood, but this is the cost of doing forestry that protects multiple values. 4) Efforts should be taken to wind-firm the residuals, but if some blow over, that's fine. Experience shows that leaving islands in strategic spots works pretty well. 5) The intent is to leave fully functional refugia. Non-merchantable residuals will bias the leave and select for genetically inferior regeneration. 6) Not true to our knowledge.	
5.	1.1.2.1 Target b	b) *Following timber harvesting, down woody debris >7.5 cm in diameter or standing topped trees >7.5 cm DBH and existing snags shall be retained at levels similar to adjacent stands of a similar forest type.* QHs – Substitute "similar to"' with "no less than found in". CrowPAC – Prefers "similar to".	"Similar to" is better. We don't want huge matchstick jumbles of debris on site.	No change
6.	1.1.2.1 Strategy iv	iv) *Timber disposition holders will educate equipment operators on the need for and benefits of structure retention, and harvesting practices that need to be employed for retaining structural attributes during and following timber harvesting*. CrowPAC – Insert "and ensure equipment operators are trained in".	Improves clarity.	Re-write Timber disposition holders will educate equipment operators on the need for and benefits of structure retention, and ensure equipment operators are trained in harvesting practices that need to be employed for retaining structural attributes during and following timber harvesting.
7.	1.1.2.1 Strategy vi	vi) *For target "b", timber disposition holders will complete assessments (using ocular or empirical approaches) of coarse, down woody debris remaining on site after timber harvesting to determine whether a correspondence has been achieved with debris levels found in adjacent stands.*	Strike "(using ocular or empirical approaches)". New zonal ground rules will identify the approach (method, technique) for completing debris assessments. Completion of debris assessments will be a new	Re-write For target "b", timber disposition holders will complete assessments of coarse, down woody debris remaining on site after timber harvesting to determine whether a correspondence has been achieved with

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		QHs – This has real cost implications for QHs – they do not want to shoulder this responsibility (it would make more sense for them to complete debris assessments if they were FMA holders). Perhaps QH could do this in cooperation with government?	cost of doing business for QHs.	debris levels found in adjacent stands.
8.	1.1.2.1 new Strategy	CrowPAC – Include new strategy; proposed wording provided.	Good strategy.	Insert Site operators are to ensure that downed woody debris is scattered and distributed across the cutblock (i.e., debris piles are discouraged).
9.	1.1.2.1 Implications	– *AAC will be reduced by 3% to account for structure retention.* QHs – This is significant for Spray Lakes Sawmill. SLS is looking for more volume to feed mill.	Understood. But green retention is a very significant aspect of biodiversity conservation in harvested areas, as well as achieving aesthetics objectives.	No change
10.	1.1.2.2 Target b	b) *>20% of the merchantable blow down volume or area, per event, will be retained on site.* QHs – 1) 0% is preferred. 2) This rule is not sensitive to site conditions and what is happening on the landscape. What if a large fire has burned in the vicinity? 3) Spray Lakes cannot afford to lose this volume of wood (will need to find wood elsewhere). CrowPAC – Quota Holders should have the following options: if the blow down is close to roads – harvest all merchantable trees; if the blow down is not easily accessible and if the fallen timber has limited economic value, then leave downed timber on site.	Target should meet biodiversity objectives and provide flexibility for QHs to recover accessible blow down timber. Target will be modified to give it more specificity and to allow for improved flexibility in harvesting blow down areas. Note that the target refers to an "event".	Re-write Within each subregion, >20% of the merchantable blow down volume or area, for blow down events exceeding 10 ha in size, will be retained on site.
11.	1.2.1 Target c	c) *No harvest of:* • *Whitebark Pine*	Douglas Fir "B" density stands are unique on south and east-facing slopes and it is these	No change

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		• *Limber Pine* • *"A" (very open) and "B" density Douglas Fir stands (in the Porcupine Hills) which lack a coniferous understorey.* QHs – Spray Lakes does not support removing "B" density Douglas Fir from the AAC; i.e., should be harvested.	stands that will not be harvested. It is thought that Douglas Fir "B" stands are virtually inconsequential in terms of their ACC contribution.	
12.	1.2.1 Strategy c-iii	iii) All large, veteran, "wolf" (turkey) Douglas Fir trees that occur within scheduled stands will not be cut. CrowPAC – insert (turkey) after wolf. QHs – What if these trees are in a "road line"?	Road alignments and road construction should avoid wolf'trees wherever possible. If no options to their avoidance exists, wolf trees may be cut.	Re-write All large, veteran, "wolf" (turkey) Douglas Fir trees that occur within scheduled stands will not be cut except when they occur on an unavoidable road alignment.
13.	1.2.1 Strategy d	d) Forest Protection Division, in conjunction with PLFD, will undertake controlled burns of low-density Douglas Fir stands. QHs: • very risky; • conflicts with Target "c" in this section (i.e., low-density Douglas Fir are to be retained).	Low-intensity burns should have minimal impact on Douglas Fir stands (a species which is naturally fire resistant).	Rewrite Forest Protection Division, in conjunction with PLFD, will consider undertaking low-intensity burns in Douglas Fir stands.
14.	1.3.1 Target a	a) *Two* in situ *gene conservation areas – comprised of >5000 trees (at rotation), surrounded by ≥500 m buffer – will be established for each selected tree species in the following proposed (or alternative) seed zones as they become established in the future:* QHs – 1) This target makes no sense. 2) Why is seed needed from strict seed zones within C5 FMU (why for Lodgepole Pine)? 3) "Conservation Areas" could take up to 12,240 ha out of production (a 10% hit) plus an AAC reduction during the deferral period.	1) This is taken from Standards for Tree Improvement in Alberta. It is a province-wide standard to ensure that wild genetic resources are maintained. 2) To ensure that tree genetics are matched to the source area. This is in accordance with provincial standards. 3) Can be multiple species, in protected areas, and be harvested under certain conditions.	Follow-up Leonard Bernhardt to confirm if gene conservation areas will be established for all of the following species: • Lodgepole Pine • White Spruce • Alpine Fir • Douglas Fir • Limber Pine • Whitebark Pine • Western Larch.

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15.	1.4 Objective 1	*To adopt forest management practices that maintain the ecological integrity of established protected areas.* QHs – Objective is slanted in favor of protected areas (recognition needs to be given to both sides of the boundary; i.e., what happens in protected areas can affect timber stands adjacent to protected areas).	The intent of element 1.4 is to "respect protected areas". So the slant is built in. The two-way nature of the relationship is explicitly noted.	No change
16.	1.4.1 Strategy ii	ii) *Discussions shall be undertaken with ACD to minimize the impacts of protected areas on adjacent forests (e.g., fire, insects, disease).* QHs – Would be desirable for ACD to make a commitment to share its plans and intentions with timber disposition holders.	This point could be incorporated within an agreement.	No change
17.	1.4.2 Target a	a) *All known and identified mineral licks must be buffered by a minimum 20 m "no harvest zone"* QHs – "No harvest zone" buffers are not site sensitive. Inflexible rules don't always make sense.	Valid comment. Annex 4 in the new Provincial Planning Manual indicates that 100 m buffers now need to be observed.	Re-write All known and identified mineral licks will be buffered by a 100 m no-harvest zone, or mitigated in a manner approved by Fish and Wildlife Division.
18.	1.4.2 Target b	b) *All identified denning sites of bears, wolves and cougars must be buffered by a minimum 50 m "no harvest zone".* QHs – "No harvest zone" buffers are not site sensitive. Inflexible rules don't always make sense.	Valid comment. Annex 4 in the new Provincial Planning Manual indicates that 100 m buffers now need to be observed.	Re-write All known and identified denning sites will be buffered by a 100 m no-harvest zone, or mitigated in a manner approved by Fish and Wildlife Division.
19.	1.4.2 Strategy vii	vii) To protect the forested edge adjacent to natural meadows (which has value as wildlife hiding cover), a 20 m management buffer must be established around meadows that are 5 ha or greater in size. QHs – "Buffer" is a misnomer – we are not establishing a buffer, rather allowing only 50% to trees around meadows to be harvested at one time. CrowPAC – Supports dropping the 20 m management	Planning team has rethought its approach on how it would like to retain meadows and meadow complexes.	Re-write vii) To protect the integrity of natural meadows, the following guidelines must be observed: • Forest stands surrounding individual meadows (greater than 5 ha in size) can be harvested, but un-harvested ('leave') stands must together account for at least 50% of a meadows lineal

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		buffer and adopting the 50% rule as the minimum target. It is recognized that the 50% rule could be unwieldy and onerous if applied to every 5 ha meadow (this may not meet wildlife needs or make sense from a logging perspective). Therefore, consideration should be given to applying the 50% rule over "meadow management units" or "meadow complexes/clusters" – this provides flexibility and reduces roading requirements.–		edge. • Un-harvested "leave" stands can be harvested when the adjacent cutblock provides adequate wildlife hiding cover; i.e., when 3 m "green up" has been achieved. • Un-harvested "leave" stands must be at least 50 m wide (deep). viii) To protect the integrity of meadow complexes (a "meadow complex" is a clustering of 3 or more meadows less than 50 m apart.), FWD staff will provide guidance on their maintenance during the AOP review stage. ix) During the AOP review stage, FWD staff will be consulted to identify mitigation measures that can be successfully adopted during timber harvesting to retain meadow complexes – without adversely affecting the AAC.
20.	1.4.3 Objective	*To maintain rare ecosystems.* QHs – Section deals with: rare ecosystems, rare communities, rare plants. What is the focus? Identify what makes a plant or plant community rare.	Fair comment. We are operationally talking about rare plant communities. We cannot define what "rare" is. Instead, we are providing a list that can be negotiated.	Rewrite To maintain rare plant communities.
21.	1.4.3 Strategy ii	ii) *Staff involved with field reconnaissance work shall be trained to identify rare plants and note their location.* QHs – Is this really feasible? Who will train?	Perhaps the statement is too specific. Nonetheless, timber disposition holders will have the responsibility for determining whether rare plants are present in proposed cutblocks.	Rewrite Timber disposition holders are responsible for identifying rare plants and noting their location in proposed cutblocks.
22.	1.4.3 Strategy iii	iii) *Timber disposition holders shall develop a strategy to ensure that rare plant communities are not*	I don't think that we have a comprehensive strategy in mind. We simply want to know how	Rewrite Timber disposition holders shall ensure that

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		jeopardized by any silvicultural operations. QHs – Costly activity for QHs to do.	QHs will address each instance of a rare plant community. "Strategy" is the wrong word.	rare plant communities are not jeopardized by any silvicultural operations.
23.	Endnotes for Criterion 1	QHs – Table which accompanies the definition for *"Cover Groups/Conifer Cover Types"* needs to be consistent with the provincial regeneration (strata) guidelines.	Table will comply with Directive No. 2004-01 Reforestation Strata (Landbase) Declarations [May 1, 2004]	Update Table
24.	Endnotes for Criterion 1	*Patch— An aggregation of contiguous forest stands of the same seral stage which are not split by a linear feature greater than 8 m in width*. QHs – How complex can a "patch" be in terms of its shape? Useful to identify an upper area-to-perimeter ratio.	It is recognized that patches can be complex. If the area-to-perimeter ratio becomes too large, what would we do? We considered ways of reducing relative amounts of edge, but decided it was too complicated.-	No change
25.	Endnotes for Criterion 1	Definition for *Interior Forest*	Definition subject to change/revision	John/Chris to finalize definition
26.				
Criterion No. 2				
27.	2.1.1 Target b	b) *Upper and lower bounds of the area for 8 cover groups in 5 subregions for both the gross and net land base over a 200 year time period as defined in Appendix 1.* QHs – Why are targets set for both the gross and net land base? Why not focus on just the net forest – active – land base?	The intent is to emulate the natural mix of seral stages and cover groups over the entire landscape (i.e., the gross landbase). By setting separate targets for the gross and net land base, the harvest of certain seral stages/cover types can be compensated by over-representation on the inoperable land base. Otherwise, the active and inactive land bases would need to have equal amounts. Separate targets are to the advantage of the operator.	No change
28.	2.1.1 Target c	c) *Replace cover groups in the same relative proportions as existed prior to harvesting (as directed in the provincial regeneration manual).*	Further fine tuning of CrowPAC's proposal is necessary.	Rewrite Replace cover classes on a compartment basis in the same relative proportions as

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		CrowPAC – Propose alternative wording: "achieve a balance of species over a defined area in accordance with the provincial regeneration manual".		existed prior to harvesting (as directed in the provincial regeneration manual).
29.	2.1.1 Strategy i 9th Bullet	i) *Forest practices must be encouraged that minimize ecosystem degradation and site disturbance (including but not limited to):* • *retain on-site organic matter (minimize forest floor displacement).* QHs – Depends on level of scarification needed for a particular site.	The level of scarification that is required tends to be site specific. It is recognized that "aggressive" scarification is required on some sites to promote effective reforestation.	Rewrite • retain on-site organic matter.
30.	2.1.1 Strategy ii	ii) *Timber disposition holders to undertake prompt and progressive reclamation (i.e., restoration work to be undertaken by timber disposition holders in the first available operating season).* QHs – This may not be achievable; it will occur after scarification has occurred. (QHs need to comply with the established 2-year reforestation timeline.)	QHs have raised a valid point. Various factors may delay reclamation work and reforestation treatments. QHs must, however, comply with established rules for these activities.	Rewrite Timber disposition holders shall undertake prompt and progressive reclamation to comply with reforestation timelines, while following prescribed silvicultural activities.
31.	2.1.1 Strategy v	v) *ASRD staff must complete visual appraisals of disturbed areas when engaged in field work and document any sites that appear to be degraded.* QHs – Provide criteria for what constitutes degraded (is it more than "rutting"?)	What "degraded" means, and what it looks like in the field, needs to be established so that operators know what to avoid.	Follow-up Barry White to provide a definition and operational criteria for "degraded" sites.
32.	2.1.2 Target a	a) *Limit people-caused fires to <25 fires per year over a 10-year period.* QHs – What is the strategy for this target?		Follow-ups Target a – FPD to provide new wording that identifies abandoned campfires (outside of established campsites) as people-caused fires. ALSO provide any related strategies on this topic. NEED "Monitoring and Measurement" input

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
				from FPD for Objective #2 as well.
33.	2.1.2 Strategy iv	iv) *If pre-identified fire behavior conditions are met, ASRD must consider letting desirable wildfires burn to achieve management objectives.* QHs – Is "must" the right word? Is there such a thing as a "desirable wildfire"? Fire is very risky. CrowPAC – Prefers "may".	ASRD's initial response to forest fires is <u>always</u> containment and suppression. Therefore, "prescribed fire" (not wild fire) will be the mechanism for using fire to achieve management objectives.	Rewrite ASRD will extinguish all wildfires. Prescribed fires may be used to achieve management objectives for an area.
34.	2.1.2 Strategy vii	vii) *Timber disposition holders/operators are responsible for infrared scanning in all areas in which debris pile burning is occurring to detect "hold over" fires and to take appropriate action to prevent a fire outbreak.* QHs – Also advocate use of cold trailing. It was noted that infrared scanning is not error free. CrowPAC – Strategy should apply to "all" disposition holders.	The inclusion of "cold trailing" is helpful.	Rewrite All disposition holders/operators are responsible for the extinguishment of all fires associated with debris pile burning and using "cold trailing" or infrared scanning to detect "hold over" fires and to take appropriate action to prevent a fire outbreak. Infrared scanning is required for large debris burning operations, while cold trailing – by hand – is acceptable when only a small number of piles are being burned.
35.	2.1.2 Strategy viii		New strategy is needed.	Insert viii) Partial cut systems (e.g., selection and shelterwood silvicultural systems) are the preferred vegetative management strategies for the 10 kilometer FireSmart "community zone" around communities. Partial cut systems may also be considered throughout the FMU to meet FireSmart objectives.
36.	2.1.3 Strategy i	i) *ASRD shall:* • *complete annual aerial surveys* • *complete pheromone baiting*	Further clarity is needed on this strategy	Rewrite To minimize pest-related impacts, ASRD, as per *Alberta Forest Health Strategy and*

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		• *complete stakeholder and staff training* • *ask disposition holders and operators to inform the department of any pest sightings.*		*Shared Roles and Responsibilities Between SRD and Forest Industry (Dec. 10, 2003)* shall: • *undertake annual aerial surveys* • *undertake pheromone baiting* • *undertake stakeholder and staff training* • *ask disposition holders and operators to inform the department of any pest sightings* encourage timber disposition holders to work with ASRD to undertake ground surveys where aerial surveys confirm the existence of pest problems. In addition, timber disposition holders can assist in the identification of affected trees or the extent and severity of infestations while completing pre-harvest assessments, silvicultural surveys, etc.
37.	2.1.3 Strategy iii	iii) *The TSA model (and spatial harvest sequence) must target stands that are highly susceptible to insects and disease.*	This is not happening. Restate.	Follow-up and Rewrite Tim to discuss the following with Dan Lux: ASRD will make adjustments to operational plans to immediately address insect and pest outbreaks. Subsequently, the spatial harvest sequence will be adjusted when a new Timber Supply Analysis is completed.
38.	2.1.3 Strategy iv	iv) *Work toward reducing the overall hazard from insect and disease outbreaks by creating a tree species mosaic of different age classes and species composition.* QHs – How will this affect the forest mosaic and biodiversity?	Management interventions to reduce insect and disease outbreaks may have some effect on biodiversity.	No change

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
39.	2.1.3 Strategy v	v) *ASRD shall jointly conduct ground surveys and undertake control initiatives with disposition holders where surveys confirm the existence of pest problems.* QHs – Has cost implications for QHs. Clarify the intent and what is expected.	Planning team has reconsidered this strategy and opted to lessen the demands being placed on QHs.	**Delete** strategy. **Insert** new bullet in Strategy i (2.1.3): Ask disposition holders and operators to inform the department of any pest sightings (see # 36 above).
40.	2.1.4 Strategy i	i) *Retain buffers around mistletoe-infested blocks.* QHs – WHY? Sanitation cutting has been the preferred strategy.	Sanitation cutting is the best method and is not in dispute. However, to ensure that mistletoe does not migrate into new cutblocks, a 30-meter buffer of spruce or some other species is needed around the sanitation cut.	**Rewrite** Retain buffers around mistletoe-infested blocks to arrest the spread of mistletoe.
41.	2.1.4 Strategy iii	iii) *Require stump removal for root disease.* QHs – Not really feasible. Very expensive; contaminated roots remain in ground; not proven effective. Stumps also need to be burned.	Stumping" is an option for the future; however, it will not be a requirement at this time.	**Rewrite** Consider stump removal for root disease.
42.	2.1.4 Strategy iv	v) *Manage weed species infestations on cutblocks that could interfere with tree regeneration (seedling establishment).* CrowPAC – New strategy proposed by CrowPAC.	The new strategy has merit.	**Insert** Manage weed species infestations on cutblocks that could interfere with seedling establishment.
43.	2.1.4 Strategy ix	ix) *Incorporate wind throw management.* QHs – EXPLAIN. Does this mean eliminate wind-throw. Is it not the case that the buffers (required and established in response to Criterion 1) are susceptible to wind throw?	The intent is not to eliminate wind throw but to reduce its potential.	**Rewrite** Incorporate wind throw management in the design and orientation of cutblocks.
44.	2.1.4 Strategy x	x) *Accessible merchantable timber resulting from wind throw events shall be scheduled for recovery in the upcoming AOP.* QHs – Except for 20% referred to in Criterion 1.1.2, Target 2b.	Yes – see #10 above.	**No change**
45.	2.1.5	viii) *Grazing permit holders are encouraged to provide*	It is thought that Strategy "iii" in this section is	**Delete strategy**

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
	Strategy viii	*weed site information to ASRD.* QHs – Grazing permittees are "encouraged to" BUT timber disposition holders "shall" or "must". SEEMS like a double standard – why the relaxed approach for grazing disposition holders? CrowPAC – Proposed wording: "Grazing permit holders are encouraged to provide weed site information to ASRD."	sufficient, obviating the need for this contentious strategy.	
46.	2.1.6 Strategy i	i) *Encourage the development of silvicultural/harvest systems that are responsive to site, species, climatic and other conditions within the C5 FMU (e.g., reforestation of Douglas Fir in the Porcupine Hills).* CrowPAC – Replace "Encourage the development of" with "Develop" . . .	Agreed.	Rewrite Develop silvicultural/harvest systems that are responsive to site, species, climatic and other conditions within the C5 FMU (e.g., reforestation of Douglas Fir in the Porcupine Hills).
47.	2.1.7 Objective	*To use prescribed fire for achieving forest protection, forest productivity, forest health and biodiversity objectives.* QHs – Don't like this objective. Prefer vegetation management through timber harvesting. SLS needs more wood – therefore can't support burning. Prescribed fire should not be applied to areas containing merchantable timber. NOTE: If all the indices for allowing a fire to burn are met, the fire intensity needed for a burn will likely not be achieved.	FWD is strongly in favor of introducing prescribed fire on the landscape. ASRD is increasingly committed to using prescribed fire, which has become a program area for the Forest Protection Division.	No change
48.	2.1.7 Indicator a	a) Percentage of identified high and extreme hazard stands treated over a 10-year period (2006-2016). CrowPAC – Would like to insert: "(occurring on the non-productive commercial forest land base)"	Good suggestion – adds clarity.	Re-write Percentage of identified high and extreme hazard stands (occurring on the non-active forest land base) treated over a 10-year period (2006-2016).

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
49.	2.1.7 Strategy ii	ii) *FPD, PLFD, FWD and ACA must together explore the need for using prescribed burns to improve or create a diversity of wildlife habitat conditions and achieve biodiversity objectives. If consensus exists on the use of prescribed burns, a landscape strategy shall be developed for introducing fire as a management tool in the C5 FMU.* CrowPAC – Favors deleting: "If consensus exists on the use of prescribed burns, a landscape strategy shall be developed for introducing fire as a management tool in the C5 FMU."	Agreed. It is not certain that interested agencies have the time or willingness to formalize "landscape strategies."	Rewrite FPD, PLFD, FWD and ACA must together explore the need for using prescribed burns to improve or create a diversity of wildlife habitat conditions and achieve biodiversity objectives.
Criterion No. 3				
50.	3.1.1 Strategy i	i) *Following timber harvesting, ocular (visual) assessments must be completed to determine coarse woody debris levels to levels found in adjacent forest stands.* QHs – Ocular assessments to be completed by whom? CrowPAC – What if woody debris levels in adjacent stands are excessive? Debris levels cannot exceed ASRD's "Debris Disposal Requirements for Logging"?	– Assessments do not need to be ocular assessments. – Timber disposition holders will need to comply with ASRD's new: "Debris Disposal Requirements for Logging Operations" (latest draft was issued February 27, 2004).	Rewrite i) Following timber harvesting, ocular (or other) assessments must be completed by timber disposition holders to determine whether coarse woody debris levels found on the cut-block are comparable (in terms of amount and size) to levels found in adjacent forest stands.
51.	3.1.1	QHs – Is the FMP promoting at-the-stump processing (keep slash on site) or roadside (landing) processing?	The FMP is not promoting or prescribing either processing method. However, it is recognized that stump-side processing has desirable benefits (i.e., higher debris retention on site).	
52.	3.1.2 Strategy ii	ii) *When operating on continuous slopes having a sustained grade of greater than 45 degrees, a slope/terrain stability assessment will be required by ASRD.* QHs – This is an extra cost to QHs. What exactly does	Operating on steep slopes will be addressed in greater detail in Zonal Ground Rules and in Block Plans. Provincial Operating Ground Rules currently provide direction for operating on steep slopes.	Rewrite ii) When operating on continuous slopes having a sustained grade of greater than 45 percent, a detailed block plan (in which slope stability is addressed) must be

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		the assessment entail? Who will develop criteria/parameters for working on steep slopes?		submitted to ASRD. A slope/terrain stability assessment may be required for slopes less than 45 percent if signs of slope instability exist.
53.	3.1.2 New strategy	CrowPAC – Would like to have a new strategy included in this section: Zonal Ground Rules shall include specifications on bridge design and bridge decks to minimize soil deposition into creek channels.	Good suggestion.	Rewrite iii) Zonal Ground Rules shall include direction to prevent soil, debris and deleterious materials from entering water courses at water crossing sites (i.e., ensure that bridge decks and bridge structures are constructed to prevent soil and debris from entering water courses).
54.	3.2.1 Strategy i	i) *Timber disposition holders/contractors are responsible for ensuring that water quality is not degraded and must take immediate action in response to <u>any</u> water quality concern/issue arising through their operations.* CrowPAC – Does the FMP apply to only to timber disposition holders or to all disposition holders in the C5 FMU? QHs – Does "any" refer primarily to sedimentation?	– This plan has a forest management focus; i.e., plan applies only to timber disposition holders and ASRD. Other industries and sectors have not been fully consulted in plan development, nor will they be asked to endorse or adopt this FMP – hence it seems prudent not to impose requirements on other industries. – "any" is open-ended, referring to any harmful substance or material.	Rewrite i) Timber disposition holders, contractors, and operators are responsible for ensuring that water quality is not degraded, and must take immediate action in response to <u>any</u> water quality concern/issue resulting from their operations.
55.	3.2.1 Strategy ii	ii) *Timber disposition holders and License of Occupation (LOC) holders are to contact appropriate provincial/federal agencies (ASRD – siltation; ANEV – pollutants; and DFO – deleterious substances affecting fish habitat) when a water quality issue arises and reach an agreement with government officials on a plan of action to address the problem.* QHs – Can we be more clear on agency mandates and responsibilities?	Rather than provide more detail on agency mandates (which, if not precisely stated in the FMP, would be contentious), the Planning Team has opted to highlight water-related issues, which – if they arise – will necessitate that disposition holders contact appropriate agencies. Operators and disposition holders will need to inform themselves of those agencies which need to be contacted.	Rewrite ii) Timber disposition holders and License of Occupation (LOC) holders are to contact appropriate provincial/federal agencies when a water quality issue arises (e.g., siltation; pollution; deleterious substances affecting fish habitat).
56.	3.2.1	v) *Timber disposition holders (and LOC holders) must*	It is the Planning Team's view that what is	Rewrite

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
	Strategy v	*inspect/monitor:* • *all watercourse crossings* • *all constructed roads/trails* • *all reclamation / restoration work.* *Maintenance issues must be effectively dealt with in an agreed upon timeframe.* QHs – This is over and above what is required in the current Ground Rules.	recommended in the strategy constitutes good stewardship. Therefore, this statement should remain in the plan.	v) Timber disposition holders (and LOC holders) must inspect/monitor: • all watercourse crossings • all constructed roads/trails • all reclamation/restoration work. Maintenance issues must be promptly addressed.
57.	3.2.1 Strategy vi	vii) *Road and stream crossing inspections must be conducted by LOC holders during spring break-up.* QHs – This is a bad time to be on the roads doing an inspection.	Because of soft ground conditions, spring may not be the best time for inspections; however, inspections at this time of year are needed to detect emerging issues (standing water; plugged culverts; erosion; etc.).	Rewrite and incorporate in Strategy "v": Road and stream crossing inspections must be conducted by LOC holders at the beginning of spring break-up.
58.	3.2.1 Strategy ix	ix) *Timber disposition holders to comply with the Watercourse Crossing Code of Practice, Alberta's Environmental Protection and Enhancement Act, Alberta's Water Act, and the federal Fisheries Act* QHs – The Watercourse Crossing Code does not apply to the forest industry in the Green Area when installing smaller structures: i.e., culverts and bridges below a certain size.	Agreed. The strategy needs to acknowledge the point raised by QHs.	Rewrite viii) Timber disposition holders must comply with the provincial Watercourse Crossing Code of Practice where applicable (NOTE the Code identifies Green Area exemptions that apply to timber operators), Alberta's *Environmental Protection and Enhancement Act*, Alberta's *Water Act*, and the federal *Fisheries Act.*
59.	3.2.1 Strategy x	x) *Timber disposition holders and LOC holders to consult with Fisheries and Oceans Canada prior to road construction to ensure that all stream crossing structures (or other works and undertakings) that have the potential to effect fish and fish habitat, are of suitable design and capacity to allow unobstructed fish movement.* QHs – It is not a regulatory requirement for QHs to consult with DFO. Due diligence should be encouraged.	Planning Team concurs with QHs comment and accepts CrowPAC's recommendation.	Rewrite ix) Timber disposition holders and LOC holders are encouraged to consult with Fisheries and Oceans Canada prior to road construction to ensure that all stream crossing structures (or other works and undertakings) that have the potential to effect fish and fish habitat, are of suitable design and capacity to allow unobstructed fish movement.

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		CrowPAC – Insert "are encouraged"		
60.	3.2.2 Strategy vii	*vii) Zonal Operating Ground rules to address the following:* • *operators should strive to maintain natural drainage patterns* • *maintain the integrity of all water source areas and water bodies* • *no net loss of fish habitat* • *visual assessments and field consultations to be completed by DFO, ASRD, and timber disposition holder prior to the construction of stream crossing facilities on fish bearing streams* • *timber companies to follow DFO's "Habitat Conservation and Protection Guidelines" and Alberta Environment's "Code of Practice for Watercourse Crossings" regarding any vegetation clearing/site modifications adjacent to watercourses or any in-stream work associated with watercourse crossings.* QHs – It is not the Government of Alberta's role to force QHs to consult with DFO. CrowPAC – Soften content of last two bullets.	Valid point raised by QHs.	Rewrite (last two bullets) • it is advised that timber disposition holders undertake field consultations with DFO and ASRD staff prior to commencing with field operations • timber disposition holders are encouraged to follow DFO's "Habitat Conservation and Protection Guidelines" and Alberta Environment's "Code of Practice for Watercourse Crossings" regarding any vegetation clearing/site modifications adjacent to watercourses or any in-stream work associated with watercourse crossings.
Criterion No. 4 NOTE – Element 4.2 will now become 5.1.2				
61.	4.2.1 Strategy vi	vi) *The TSA model shall be used to update the AAC in response to changes in the net forest land base.* QHs – Update AAC only if more than 2.5% of the net land base needs to be withdrawn; otherwise, the AAC will be updated at 10-year intervals (see Strategy "v" in 5.1.1.	Agreed	Rewrite vi) The TSA model shall be used to update the AAC in response to changes in the net forest land base. (The AAC shall be revised when more than 2.5% of the net land base is impacted due to a disturbance. The AAC shall be reduced by an amount equal to the percentage of the net land base deletion).

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
62.	4.2.1 Strategy vii	vii) *ASRD shall designate all <u>non-merchantable</u> sites and/or low productive sites as subjective land base deletions (subject to operational verification).* QHs – Should be tied to age. SLS suggested that we may want to link height to origin date. In SLS's case, some "u" productivity ratings are in fact merchantable stands. It was also mentioned that the typical age-DBH relationship can be skewed at some sites.	ASRD will designate all never merchantable productivity sites as subjective land base deletions.	Rewrite "never merchantable" stands will be included as a subjective land base deletion during the TSA process.
63.	4.2.1 Strategy ix	ix) *ASRD shall track burned areas to determine whether regeneration has been successful and if not, encourage timber disposition holders to treat such sites. Where lands are found to be regenerating naturally, disposition holders shall have the option of completing regeneration surveys or a regenerated stand inventory to confirm stocking levels.* QHs – Recommend that we delete: "and if not, encourage timber disposition holders to treat such sites."	Planning Team concurs with QHs suggestion.	Rewrite viii) ASRD shall track burned areas to determine whether regeneration has been successful. Where lands are found to be regenerating naturally, disposition holders shall have the option of completing regeneration surveys or a regenerated stand inventory to confirm stocking levels.
Criterion No. 5				
64.	5.1.1 Objective	*To maintain sustainable timber harvest levels; i.e., timber harvesting shall not exceed the forest's productive (renewal) capacity.* QHs – Favor the following objective: "To maintain or increase the current AAC."	The FMP's goal is to balance the provision of an AAC with other forest considerations, activities and values.	No Change
65.	5.1.1 Target 1b	b) *To maintain an acceptable level of growing stock.* QHs – Define "acceptable".	Alternative wording might include: "The amount of operable growing stock at the end of the planning horizon must be equal to or greater than the average growing stock levels on the net land base throughout the entire 200-year planning horizon" (taken from the new provincial	Rewrite and Follow-up 10 years of operable growing stock at the end of the 200-year planning horizon. Darryl Price indicated that this target is not acceptable. <u>New target needs to be developed</u> based on sensitivity analysis.

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
			Planning Manual).	
66.	5.1.1 Strategy iii	iii) *Growing stock levels shall be maintained in accordance with the approved TSA.* QHs – Clarify what this strategy means.	Planning Team decided this strategy adds very little.	Remove
67.	5.1.1 Strategy v	v) *The AAC shall be revised only when more than 2.5% of the net land base is deleted. The AAC shall be reduced by an amount equal to the percentage of the net land base deletion.* QHS – Suggest it would be better to link AAC reductions to "yield strata".	Yield strata are a consideration in AAC reduction calculations.	Rewrite v) The AAC shall be revised when more than 2.5% of the net land base is impacted due to a disturbance. The AAC shall be reduced by an amount equal to the percentage of the net land base deletion.
68.	5.1.1 New Strategy	QHs – Need a new strategy that outlines ASRD's commitment to developing a growth-and-yield program for the C5 FMU.	Agreed.	Add vi) ASRD will develop a growth-and-yield monitoring program as part of this FMP
69.	5.1.1 Strategy xi	xi) *Continue to improve our understanding of forest stand dynamics and growth modeling through permanent sample plots and research projects. ASRD shall complete necessary evaluations and then determine if adjustments are required to established yield curves. If necessary, the yield curves shall be adjusted to correspond with research findings, and if warranted, predicted yield curves shall be adjusted to correspond with actual scaled timber volumes.* QHs – Would like to see temporary sample plots established.	Planning Team agrees.	Rewrite xi) Continue to improve our understanding of forest stand dynamics and growth modeling through permanent sample plots, temporary sample plots and may include research projects. . .
70.	5.1.2 Strategy ii	ii) *Provincial regeneration requirements may be modified or waived to meet wildlife management, aesthetics or other objectives.* QHs – Who (which agency or ASRD manager) possesses the necessary authority to waive requirements contained in provincial timber	Good question. An answer is found in Scott Milligan's 23 June 2004 memo: "RE: vegetation management in community zones".	Rewrite ii) Provincial reforestation standards may be modified or waived by the Minister or his designate (through a delegation of authority) as per section 143 – *Timber Management Regulations*. The Minister or

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		regulations?		his/her designate (e.g., Forest Management Director) can waive reforestation standards.
71.	5.1.2 Strategy iv	iv) *When and where deemed necessary, a regeneration lag may be adopted.* QHs – A 5-year regeneration lag period is assumed.	Yes.	Rewrite iv) When and where deemed necessary, a 5-year regeneration lag may be adopted.
72.	5.1.2 Strategy vi	vi) – *Timber disposition holders to ensure that site preparation treatments being used are conducive to prompt regeneration.* CrowPAC – Complete statement with: "while minimizing environmental/ecological degradation (see 3.1.1)".	Agreed.	Rewrite vi) Timber disposition holders to ensure that site preparation treatments being used are conducive to prompt regeneration, while minimizing environmental/ecological degradation (see 3.1.1).
73.	5.1.2 Strategy ix	ix) *To maintain the species composition found in the forest, all harvested sites shall be reforested to reflect the species mix and species proportions that existed before harvesting occurred. The original species mix and proportion can be achieved (balanced out) over a larger area if not achievable at the cutblock level.* QHs – SLS has serious concerns with this sentence. Practically/operationally, species mix and proportions can be achieved through reforestation treatments over a number of blocks but not on individual blocks. *Note*: SLS will stratify blocks for reforestation treatments if distinctly different site conditions are present on the block.	Clarity is provided in Forest Management Branch Directive 2004-01 and 2004-02: "Reforestation Strata (Landbase) Declarations".	Rewrite and Follow-up ix) To maintain the species composition found in the forest, all harvested sites shall be reforested to reflect the species mix and species proportions by strata that existed before harvesting occurred. The original species mix and proportion can be achieved (balanced out) over a larger area if not achievable at the cutblock level. QHs propose the following: ix) To maintain the species composition found in the forest, all harvested sites shall be reforested to reflect ~~the species mix and species proportions~~ (? cover class) by yield strata that existed before harvesting occurred. The original species mix and proportion can be achieved (balanced out) over a larger area if not achievable at the cutblock level. (See Forest Management

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
				Branch Directive 2004-01 and 2004-02.) Dave Coish to discuss with Ken Greenway. What terminology shall we employ?
74.	5.1.2 New monitoring statement	CrowPAC – Would like to see the following statement included: "ASRD will employ the Alberta Reforestation Information System (ARIS) to track reforestation success on cutblocks."	PLFD cannot adopt this approach within the C5 FMU.	Insert – ASRD shall monitor reforestation performance.
75.	5.1.3 Target b	b) *Salvage 100% of the accessible, recoverable wood having merchantable value.* QHs – SLS likes this target but notes that it conflicts with other targets in the plan.	This target applies to "industrial" salvage. Given that future industrial salvage levels will likely be relatively small, no conflicts are anticipated with other sections of the FMP.	No change
76.	5.1.3 New strategy	CrowPAC – Recommends the following strategy be included in this section: "Industrial salvage will serve as a drain on the AAC" (i.e., this would provide an incentive for timber disposition holders to maximize the utilization of industrial salvage).	Quota Holders did not like Planning Team's response to CrowPAC's suggestion; i.e., iii) Industrial salvage will be charged against the quota of timber disposition holders.	Replace With iii) An industrial timber salvage deduction will be made against the gross AAC.
77.	5.1.3 New monitoring statement	CrowPAC – Recommends adopting the following: "ASRD will employ Timber Damage Assessment (TDA) to track timber salvage operations."	Agreed.	Insert – ASRD will employ Timber Damage Assessment (TDA) to track timber salvage operations.
78.	5.1.4 Indicator	a) *Achievement of set Visual Quality Objectives based on percent alteration (through clearcutting) of the green portion of the landscape or landscape scene.* QHs – Comment: Visual quality objectives, which identify the amount of landscape alteration that can occur in each "sensitive zone", are somewhat useful. What is of greater relevance is the degree to which a disturbance is visible from an established viewpoint; i.e., from an aesthetics perspective, where and how	Valid point. However, the indicator follows PLFD's current Visual Resource Assessment methodology.	No Change

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		the alteration occurs, and how it blends in is much more meaningful than the amount (hectares) of alteration allowed.		
79.	5.1.4 Target a	a) Visual Quality Objectives for "high" visually sensitive zones are as follows *(percent figures indicate anticipated alteration proportions within each "sensitive zone")* Preservation 0 % Retention 0-2 % Partial Retention 2.1-8.0 % Modification 8.1-20 % Max. Modification 20.1-35 % QHs – Will these objectives impact the ACC?	Perhaps the AAC will be impacted. More likely, achieving visual quality objectives may necessitate that the harvesting of some blocks be deferred or that special design considerations be followed.	No Change
80.	5.1.4 Strategy iv	iv) Timber disposition holders shall complete a "Visual Impact Analysis" and "Total Resource Design" in consultation with ASRD. QHs – Clarify		Rewrite iv) Timber disposition holders shall complete a "Visual Impact Analysis" and "Total Resource Design" in consultation with ASRD for cutblocks that fall within the "high" visually sensitive zone.
81.	5.1.5 Objective	*To allow the general public and various user groups to benefit from the C5 forest .by accessing market and non-market goods, values and services, and experiences.* CrowPAC – Refer to the following rewording: "To allow the general public and various user groups to benefit from the C5 forest.by accessing market and non-market goods, forest values and services, and experiences by pursuing forest dependent activities." QHs – Preference would be to delete this objective.	Perhaps the best way to proceed is to keep this statement general (generic) rather than listing all the possible human benefits that the C5 forest provides. This objective represents government policy, as expressed in approved IRPs.	Rewrite To allow the general public and various user groups to benefit from the C5 forest.
82.	5.1.5	CrowPAC – Suggests that a second indicator for uses	Planning Team could not come up with a new	No Change

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
	New indicator	and activities that do not require a permit or license" may have merit.	indicator and matching target. Furthermore, the FMP is not the mechanism for encouraging or promoting other human uses in the FMU.	
83.	5.1.5 Strategies i & ii	*i) existing IRPs, and inter-agency referrals shall be used to determine compatible uses and activities within the C5 forest* *ii) ASRD and timber disposition holders to ensure that the full range of compatible uses are considered in forest planning exercises and during timber harvesting operations.* CrowPAC – Expand these two strategies.	Strategies revised following CrowPAC's wording suggestions.	Rewrite i) Existing IRPs, water basin management plans, strategic land use plans, and inter-agency referrals shall be used to determine compatible uses and activities within the C5 forest ii) ASRD and timber disposition holders to ensure that the full range of compatible uses (as identified in IRPs, in any agreements, and government policy) are considered in forest planning exercises and during timber harvesting operations.
84.	5.1.6 Strategy ii	ii) *ASRD and disposition holders must notify the public of road closures, the rationale for road closures, and when and where road reclamation shall occur.* QHs – QH are not required to notify the public of road closures – this is ASRD's responsibility. Do we really want to commit to providing notification on road reclamation programs?	LOC holders are responsible for signing roads. Planning Team has proposed an extensive revision of strategies for this objective.	Insert ii) *"Condition of Approvals"* for LOC roads and AOP roads will identify access control (restrictions), signage, road closure, and any public notification requirements. iii) ASRD will give consideration to the establishment of additional Forest Land Use Zones within the C5 FMU to manage recreational access. iv) ASRD will identify 'open/active' and 'closed/inactive' motorized routes (and the road density for each) by sub-region and LMU within the FMU. v) ASRD will monitor road density changes, against baseline data obtained through the completion of strategy 'iv", for pre-determined areas. Road density targets will be established for each LMU

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
				as part of access development planning. The upper density for open roads in each LMU will be influenced by wildlife (e.g., grizzly), environmental, and economic/social needs. vi) ASRD shall encourage the reclamation of all abandoned roads and trails not required for industrial activity, while respecting traditional access. vii) ASRD shall initiate the development of an access development plan (to forecast access needs, identify and coordinate key industrial access needs in the FMU, and identify preferred road corridor locations to access future timber stands). The access development plan will provide a basis for the development of future access management plans. viii) New forestry access roads must be integrated with Forest Land Use Zone road networks where FLUZs exist.
85.	5.1.6 Strategy viii	CrowPAC – Would like to add a new bullet to the list of principles.	Agreed.	Insert • Establish and maintain a sustainable trail system.
86.	5.1.7 Objective	*To minimize conflicts (? impacts) between forest management operations and their effects on other users of the forest* QHs – And vice versa (it goes both ways). CrowPAC – Consider re-stating objective in positive terms: optimize interactions between . . .; improve cooperation between . . .	Planning Team favors restating the objective.	Rewrite Promote cooperation between forest harvesting operators and other forest users.

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
87.	5.1.7 New indicator	CrowPAC – Another potential indicator might be: number of "valid" complaints received (as determined by ASRD staff).	Another indicator has merit.	Insert number of complaints received Matching target is: number of complaint forms on file
88.	5.1.7 Monitoring	CrowPAC – Elaborate on monitoring statement.	Agreed.	Rewrite – Tracking mechanisms (i.e., departmental ARTs and Southern Rockies correspondence/complaint file system) shall be used to register all complaints received and follow-up actions taken.
89.	5.1.8 Strategy i	i) *ASRD shall require timber disposition holders to notify and invite non-timber disposition holders and other user groups to comment on plans and operations.* QHs – SLS will resist this strategy as there is no requirement for QHs to do this. SLS is eligible to receive "credits" under SFM certification programs if it adopts initiatives that exceed what is required or stipulated; therefore, SLS would like to have this strategy removed from the plan.	Planning Team is of the opinion that the FMP should state what accords with good stewardship. This strategy will be deleted given a similar strategy which follows (developed at a CrowPAC meeting).	Delete See new Strategy ii: ii) Timber disposition holders shall seek input from other disposition holders, organized user groups, and interested parties on their activities prior to the development of harvest and silvicultural plans. Zonal Ground Rules will provide direction on public consultation.
90.	5.1.8 New Strategies	CrowPAC – Add two new strategies. QHs – Add one new strategy.	Agreed.	Insert ii) Timber disposition holders shall seek input from other disposition holders, organized user groups, and interested parties on their activities prior to the development of harvest and silvicultural plans. iii) New non-timber disposition holders and permit holders shall be encouraged to become informed of existing dispositions and operators that use (frequent) an area of interest

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
				iv) ASRD to inform timber disposition holders of stakeholders that must be contacted before a public consultation campaign
91.	5.1.9 New indicator	CrowPAC – Favors the addition of a new indicator (several were proposed).	It is thought the proposed indicators are more applicable in Stewardship Reporting than as FMP indicators.	No change
92.	5.1.9 Strategy iii	iii) *High use random campsites shall be inventoried and monitored by forest guardians, administered by PLFD and FPD. High use random campsites must not be included in the timber harvest land base . . .* QHs – Totally disagree with this statement	ASRD recognizes random camping to be a legitimate land use and has thus generated a random camping theme map that has been incorporated in the TSA model. Analysis indicates the impact of random camping on the AAC is negligible.	Rewrite . . . High use random campsites will not be included in the timber harvest land base (except in the case of salvage removals following fire, insect outbreaks, or other natural disturbances).
93.	5.1.9 Strategy iv	iv) *minimize the expansion of random camping on the net forest land base* QHs – change 'minimize' to 'prevent'	Because random camping is a legitimate land use (where it is not explicitly excluded), the Planning Team has opted to delete this strategy.	Delete
94.	5.1.10 Indicator b	b) range-silviculture 'working agreements' QHs - based on SLS's past experience of trying to engage and cooperate with grazing disposition holders, it is doubtful whether 'working agreements' can be developed and whether they will be effective	Planning Team believes there is merit in developing working agreements in the future. QHs have indicated that ASRD must – by virtue of it mandate – assume a key role in coordinating and integrating the activities of participating disposition holders when working agreements are established	Follow-up Mike to propose new title for range-silviculture 'working agreements' and supply a definition for the Glossary,
95.	5.1.10 New: Indicator e Target e	CrowPAC – <u>Indicator</u> *e) confirmed livestock damage to forest regeneration* <u>Target</u> *e) livestock damage to forest regeneration not to exceed 7%*	Planning Team does not know the basis for adopting 7%. It is thought to be premature to include this target in the FMP; this target should first be resolved in the *Interim Guidelines to Integrate Grazing in the Green Area* and/or worked out in 'working agreements' based on site conditions.	Delete
96.	5.1.10	x) *The timber operator shall ensure that timber*	Agreed	Re-write

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
	Strategy x	*operations do not reduce the range carrying capacity for domestic livestock grazing.* CrowPAC – insert the words "strive to"		x) The timber operator shall strive to ensure that timber operations do not reduce the range carrying capacity for domestic livestock grazing
97.	5.1.12 Strategy iii	iii) *ASRD to work with affected industrial users and/or CAPP when developing an "access development plan"* CrowPAC – would like to insert: "(and seek advice from the Alberta Chamber of Resources)"	Agreed	Re-write ASRD to work with affected industrial users and/or CAPP (and seek advice from the Alberta Chamber of Resources) when developing an "access development plan"
98.	5.2.1 New indicator	QHs – Note that the CTP program is singled out to receive a specific AAC allocation. It is odd that a similar, strong commitment is not included in the plan in which QHs will receive a specific AAC allocation. Suggest that a strategy be added to try and maintain the quota certificate percentages while ensuring ecological sustainability A new indicator is proposed: honoring of all commitments contained in Quota Certificates	Have opted instead to modify the existing indicator, revise the existing target, and add a new strategy	Re-write and Add Indicator a) - volume of coniferous timber (percentage of FMU AAC) made available ~~through the Community Timber Program~~ to timber disposition holders Target a) Community Timber Program harvest level is set at 6.21 % of AAC. The total Community Timber Program volume shall be balanced at 100% for the five-year quadrant. ASRD will ensure timber allocations (expressed as a percentage of the FMU's AAC) are provided to Quota Holders and the Community Timber Program Strategy i) ASRD will honour all commitments contained in quota certificates
99.	5.2.1 Strategy v	v) *ASRD to conduct mill studies and inspections, and administer mill scale population checks.* QHs - Will ASRD be able to deliver on this?	Yes	Follow-up Strategy is out of place. Moved to 5.1.1 (now strategy viii)
100.	5.2.3 New Strategy	QHs - would like a statement here to "protect the net forest landbase".	Done as part of new 5.1.2	No change

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
Criterion No. 6				
101.	6.3.1 New Indicator	CrowPAC – proposed a new indicator and target Indicator: c) satisfaction of PAC members Target: c) high levels of PAC member satisfaction	Agreed	Insert Indicator: c) satisfaction of PAC members Target: c) high levels of PAC member satisfaction
102.	6.3.1 Strategy i	CrowPAC – further clarify the role of the new Public Advisory Committee	Agreed	Re write i) ASRD shall establish a Public Advisory Committee having balanced sectoral representation. PAC will conduct itself in accordance with a Terms of Reference developed by ASRD and Committee members. Among other things, PAC will: • provide advice on when and how public consultation should occur • provide input on the implementation of the C5 FMP (activities being undertaken and results achieved) • review and comment on C5 FMP monitoring activities and monitoring findings ii) ASRD and PAC will together ensure that PAC meetings are effective and productive. ASRD will keep PAC members informed to ensure the Committee's effectiveness. Information will be provided on: noteworthy FMU developments; relevant issues; government policies; government and industry initiatives and programs; harvesting operations in the FMU; scientific advances; best practices; . . .
103.	6.3.1 New strategy	CrowPAC – proposed a new strategy: Surveys, interviews or other techniques may be used to assess PAC member satisfaction.	Agreed	Insert iv) Surveys, interviews or other techniques may be used to assess PAC member

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
				satisfaction.
104.	6.3.2 Strategy i	i) *ASRD and disposition holders, will develop and implement education and Respondentreness strategies and programs* QHs - will share information but will strongly object to public education – this is not a company responsibility	Agreed. ASRD will lead in this endeavor and prepare public Respondentreness materials	Re-write ASRD, with input from disposition holders, will develop and implement education and Respondentreness strategies and programs (and prepare public Respondentreness materials, using dissemination strategies which have a high likelihood of reaching target audiences
105.	6.3.2 Strategy iv	iv) *copies of the C5 FMP, Annual Operating Plans, 5-year General Development Plans, C5 Annual Reports, and Five-year Stewardship Reports will be provided in local and regional libraries.* QHs - AOPs are typically made available for public review in district forest offices where they can be explained by PLFD staff,	Agreed	Re-write iv) Copies of the C5 FMP, Annual Operating Plans, C5 Annual Reports, and Five-year Stewardship Reports will be provided in local and regional libraries. Approved AOPs and GDPs will be available for public viewing in PLFD and Quota Holders offices.
106.	6.3.3 Target a	a*) ASRD will notify individuals and organizations (within a six-week period) that their comments were received.* CrowPAC - How will we close the loop with follow-up actions (i.e., how will ASRD respond to public input)?	A Departmental response will depend on the nature of the issue, its seriousness, and the circumstances of the matter. Therefore, the FMP cannot detail what actions will be taken; in some instances, no action will be appropriate.	No Change
107.	6.3.3 Strategy ii	QHs – - will PAC be consulted on all issues? - QHs do not see themselves sitting at the table with PAC on a regular basis. It is ASRD who is consulting with PAC – not QHs.	- No - Agreed	No Change
108.	6.3.3 Target a	a) *future revisions to the CSA SFM Standard that are relevant to the C5 FMP will be incorporated in this plan* QHs – the prospect of amendments to the C5 FMP	Agreed. Make similar change to the 'Monitoring' statement.	Re-write a) future revisions to the CSA SFM Standard that are applicable to the C5 FMP will be noted and may be incorporated in

#	Reference	Draft C5 FMP Proposal – Matrix	Comments/Elaboration/Rationale	Decision/Follow-up
		creates uncertainty and frustrates company plans and agreements. Therefore QHs prefer: . . . will 'be noted and may be incorporated in the next C5 FMP		the next C5 FMP
109.	6.4.1 Strategy iii	iii) *Timber disposition holders are to identify changes that were made to their operations as a result of feedback obtained through monitoring programs.* *iv) Research findings and monitoring data may result in amendments to the C5 FMP* QHs – prefer that changes will be noted and incorporated into the next C5 FMP. The prospect of amendments to the C5 FMP creates uncertainty and frustrates company plans and agreements.	No. To follow this advice would mean that we are no longer practicing 'adaptive management'	No change
110.	6.4.1 New strategy	CrowPAC – proposed a new strategy: v) polices in ASRD's Forest Planning Manual concerning 'active adaptive management' will be followed	This is self-evident and doesn't need to be stated in the FMP	No change
111.	6.4.2 Indicator and Target	CrowPAC – favors use of the term "best management practices"	Agreed	Re-write Indicator: a) adoption of best management practices Target: a) ASRD will assess and set priorities for testing and applying new approaches and best management practices. If found to be favorable and feasible, new approaches and best management practices will be adopted.
112.	6.4.4 New target	CrowPAC – proposed the addition of a new target: a-2) AVI for the C5 FMU will be updated by 2014	Agreed	Insert and Follow-up a-2) AVI for the C5 FMU will be updated by 2014 Dave Coish to confirm with R. Stokes and D. Price
113.				

B. Input from other stakeholders and interest groups on the draft Matrix

Many of the public comments that were received were not in direct response to specific proposals contained in the Matrix, rather, they raised philosophical objections with various aspects of the C5 project. What follows is a summary of feedback (received during the months of June and July, 2004) that relates specifically to recommendations contained in the C5 Matrix.

#	Matrix Reference	Public Feedback Received	Planning Team's Response	Decision / Follow-up
114.	5.1.7	a) 'the fall-back position should be as few roads as possible. The rule should be a road should be built only if necessary, they should be kept open only for the specific stated purpose, i.e., the road shouldn't be created (or kept open) if the compelling reason to do so isn't there. . . " (5.1.7)	a) We agree with this statement. A future access development plan will provide the justification for any new roads and identify the life-span and 'conditions of use; for new roads.	No change required.
	6.3.1	b) choosing of new CrowPAC members should be more transparent and its scope of interests should be more broadly represented (6.3.1)	b) Matrix objective 6.3.1 strategy 1 states: "ASRD shall establish a Public Advisory Committee having balanced sectoral representation. PAC will conduct itself in accordance with a Terms of Reference developed by ASRD and Committee members." The issues of transparency and PAC's scope will be clarified when PAC Terms of Reference are prepared.	
	6.4.5	c) RESPONDENT supports the involvement of municipalities in advising on the management of neighboring forests (6.4.5)	c) Agreed. Municipalities could be represented on the new public advisory committee. Alternatively, if it is their preference, ASRD could consult separately with municipalities.	
115.	5.1.9.1	e) "The fact that timber disposition holders have to notify others of	Notification is one thing; consultation is another.	No change required.

		their plans does not mean we have any say in changing these plans . . ."	Meaningful discussions that are part of any consultation exercise should have some influence on the content of plans. This is implicit in objective 5.1.9. Consultation must include the possibility of changes to plans to be legitimate.	
116.	1.1.1	Criterion 1: Conservation of Biodiversity 1.1.1.1 Determination of natural range of variability The natural range of variability should be independently confirmed to ensure that the baseline for variability is reliable and represents the natural range of variability to the greatest extent possible. Strategies a-1 and a-2 Indicate that where species mix is not "achievable" then a sub-regional mix will suffice. Maintaining a ratio of tree species on a regional basis does not equate to maintaining biodiversity on a broad scale. Allowance of what amount to monocultures in areas may conserve of a ratio of tree species however the broader biodiversity of the stand may be compromised, 1.1.1.2 Minimize landscape fragmentation Flexibility in altering spatial harvest sequence to respond to ecological indicators is lacking and Appendices are Incomplete (making comment difficult). 1.1.1.3 Motorized access RESPONDENT agrees that roads are a great threat to ecosystems, natural communities and species. We also agree that disturbance correlates to habitat viability. Resulting management should reflect these statements.	1.1.1.1 To provide some measure of validity and credibility, the natural range of variability should be determined by a competent professional. It is ASRD's view that FMP targets and strategies for achieving biodiversity will offer an adequate level of biodiversity protection at different scales (at cut block, LMU, and sub-regional levels). [NOTE strategies a-1 and a-2 were changed since RESPONDENT reviewed the Matrix.] 1.1.1.2 Some variance from the established spatial harvest sequence is allowed. The benefit of the spatial harvest sequence is that it provides a degree of certainty into the future and therefore is a useful tool in the analysis of landscape fragmentation. The challenge is to harvest the forest profile as indicated by the timber supply analysis. 1.1.1.3 Agreed. Roads can have significant impacts and therefore the need for any new roads must be rationalized. Access concerns will be addressed in new zonal operating ground rules, an access development plan and access management plans. A new strategy was subsequently added to 1.2.1: *in areas identified as having high habitat and conservation values for grizzly bears, access restrictions and controls shall be considered to help*	No change required.

		1.1.2 Retention of Wide Spectrum of Biodiversity at stand level 1.1.2.1 Maintaining stand level structural attributes Please clarify that Indicators of "merchantable standing trees" is the same as the volume of standing trees set out in Targets, i.e., Target is 0-5% of merchantable standing trees. On what basis was 3 chosen as average for standing trees left within cut blocks? It appears highly questionable whether 3 adequately emulates skips and it would appear that 0-5 retention is not likely an effective level to maintain biodiversity, especially if this includes old growth residuals. RESPONDENT feels that this percentage should be significantly higher. (See for example the Alberta Research Council, and ASRD, Ecological Basis for Stand Management, 2002). The conflict identified between the new guidelines on debris disposal and the FMP indicate that there is a disconnect between management guidelines and regulations and more sustainable forestry management. This disconnect needs to be resolved if the management is to be effective.	*meet conservation objectives.* Reclaiming roads and restricting public use of new roads will be explicitly addressed in the future. 1.1.2.1 Because 'Targets' are linked with 'Indicators', it is assumed that the cited target (1.1.2.1a) refers to 'merchantable' standing trees. The 3 % figure was somewhat arbitrarily chosen by professional staff and will be reviewed in the future. The rationale for 3% can be found in the May 2, 2004 *Provincial Planning Standard*.	Follow-up Perhaps John Stadt could review the two documents referred by RESPONDENT [Alberta Research Council, and ASRD, Ecological Basis for Stand Management, 2002] and provide a response?
	1.2	1.2 Species Diversity 1.2.1 Baseline data and requirements for monitoring and measurement in this area are significant. The capacity to measure and monitor is required if decisions are to be effective in retaining habitat and in determining species habitat requirements. Where species requirements are ill defined forestry management must take a precautionary approach. Species retention may also require adjusting which species are "non-harvest" species.	The C5 FMP and new operating ground rules will be in accord with the new "Debris Management Standards for Timber Harvesting Operations". 1.2.1 It is hoped that the C5 FMP will serve as a catalyst to improve and expand future monitoring efforts throughout the C5 FMU. Using a 'precautionary' approach is a principle of sustainable forest management; the plan recommends that this principle be observed.	
	1.4	1.4 Protected Areas and Sites of Biological Significance Protected areas identified through government processes are inadequate. RESPONDENT supports the statement that "trans-boundary effects on designated protected areas are minimized". This however does not detract from the need for a substantial increase in protected areas (including protection from forestry) within the C5 FMU. 1.4.1 Retention of wildlife features The stated Targets may not be adequate for retention of wildlife features and should be flexible to adapt to evidence of adverse effects	5.1.2 strategy iii states that *The provincial Special Places program has been concluded. As a result, no new protected areas are contemplated for the C5*	

		on wildlife. Criteria for establishing what will be included in Appendix 10 need defining. The Strategies also require further elucidation. For example a portion of the strategy is that "Timber disposition holders must avoid sites OR take precautionary action to minimize impacts to the site." What precautionary measures? How are the measures evaluated? When will new rare plant communities be added to Appendix 10? (This question is raised by the matrix statement that newly identified rare plant community "must eventually be added".)	*FMU in the foreseeable future.* 1.4.1 F&W staff believe that stated plan targets are adequate. Adaptive management provides a mechanism to monitor and institute management changes to ensure that wildlife habitat needs are provided through time. 1.4.3 Appendix 10 identifies existing locations of rare species and plant communities that are documented in the ANHIC data base. Presumably other sites exist but are unknown therefore disposition holders, environmental groups and the general public will be invited to contribute to the development of a locations list.	
	2.1 3.1 3.2	2.1 Forest Ecosystem resilience 2.1.6 Introduction of species should not be promoted. Introducing species may have an adverse effect on the natural biodiversity of the area and directly undermines 1.1. "Conserving ecosystem diversity" does not equate to creating and managing unnatural diversity 3.1 Soil quality and quantity 3.1.2 The objective of minimizing soil erosion and slope failure is undermined due to there being no recourse or penalties where erosion or slope failures occur. The adverse impact on watersheds and forestry communities resulting from such events require that the utmost care and planning is promoted and enforced. If erosion events cannot be avoided at a site it is not a suitable site for forestry, therefore penalties for poor operations should follow. 3.2 Water quality and quantity 3.2.2 Watershed protection Internal (government) capacity, monitoring and baseline data is lacking and acknowledged and this leads to questions of whether management will be effective. The adoption of the ECA-Alberta model as a watershed management tool should be thoroughly evaluated. Furthermore, there are no statements as to what remedial action will be taken in the event of adverse effects on the watershed. If values are exceeded how will	Precautionary measures are encouraged in the plan to safeguard potential rare plan communities and will need to be sorted out during plan implementation. 2.1.6 Point accepted. The plan does not promote the introduction of non-native or exotic species. 3.1.2 Target 2-a: "*zero erosion or slumping events attributed to timber harvesting"* addresses your concern. Target 2-a (3rd bullet) clearly implies that penalties are issued to operators for erosion and	

	4.2 5.1 5.2	operations be modified? What data will be used to dictate baseline runoff (in light of many areas already having been subjected to altered flow from historical cut passes)? RESPONDENT also questions whether the target of striving to ensure no harmful alteration to fish habitat and the strategy of no net loss of fish habitat is stringent enough to comply with Federal Fisheries laws. It is the RESPONDENT's position that maintaining net fish habitat is not a strategy that complies with federal law as it currently stands, prohibiting harmful alteration and disruption or destruction of fish habitat. 4.2 Forested Land Conversion 4..2.1 Disturbed sites should be reclaimed as early as practicable. (Access management plans should recognize that road impacts would not exist if not for industry pressures and therefore reclamation and decommissioning is essential to proper observation of resource and wildlife values) 5.1 Timber and Non-Timber Benefits 5.1.1 AAC if it is to be used, must be calculated to reflect criteria set for conservation of biodiversity and the maintenance of ecosystem integrity. This in turn reflects a significant departure from current AAC determinations. 5.1.6 As noted, the linear disturbances (Km/Km^2) in certain areas are quite high and this results in adverse impacts on certain species (such as Grizzly Bear). Management of roads including access management plans, forestry road planning and reclamation must address the adverse impacts of high linear disturbances. 5..l.10 Rangeland Management and Forestry Management must be integrated with the FMP and this should include ensuring the conservation of biodiversity and watershed protection. Harvesting practices may open up areas to grazing with adverse effects on local biodiversity, particularly through introduction of invasive species. Impact assessment of grazing in areas subject to forestry (resulting in possible restrictions on grazing) should be included. 5.1.12 Energy and Mineral exploration integration must occur in manner that reflects broader conservation elements. Biodiversity and wilderness protection initiatives may be undermined if integration with	slope failure violations. The new operating ground rules will address how operators are to minimize soil erosion and slope failure. 3.2.2 ECA-Alberta was selected because of its suitability and appropriateness. It's effectiveness and applicability will be monitored. If concerns do materialize, ASRD can employ other water analysis tools. If "values" exceed establish thresholds (which will be established in consultation with a professional hydrologist) adjustments to the spatial harvest sequence and/or forest management practices will be considered. It is recognized that federal and provincial legislation takes precedence over the FMP. DFO is comfortable with proposed wording in this section. 4.2.1 We agree, however, in the C5 FMU there are examples of industrial disturbances (mine slack piles) that have not yet been reclaimed. 5.1.1 Correct. The maximization of AAC is not driving the C5 FMP timber supply analysis. The C5 FMU AAC calculation reflects a balancing of social,	

	6.4	Alberta Energy (and possibly EUB) is not successful. 5.2 Communities and Sustainability Sustainability and ecological based goals are most likely to be achieved through a diversity of community initiatives. Diversification of local economies to include value added timber industries (such as wood finishing) will allow for decreased reliance on unsustainable harvest management. The Community Timber Program allocation should be reviewed on an ongoing basis with the ability to increase the allocation. 6.4 Information for Decision Making On a general level, decision-making should be based on science. Failing to do so will result in the undermining of biodiversity, wilderness and watershed values of the forest. Further, the lack of scientific certainty cannot be used to justify an action. The Preamble of the FMP states (at section 5) "If known land use thresholds and ecosystem limits will be observed to reduce human impacts." (RESPONDENT emphasis) Thresholds and limits are therefore central to the decision making process. The caveat of whether the thresholds are "known" is troubling as the C5 FMP currently identifies the large gaps in baseline data and lack of capacity within the relevant government bodies. If land use thresholds and ecosystem limits are not known precautionary measures should be implemented to ensure long-term sustainability.	economic & environmental values and objectives which have been identified in the FMP. 5.1.6 Agree – the FMP is supportive of your views. Once it has been adopted in the future, Alberta's Grizzly Bear Recovery Plan will influence future landscape planning in the C5 FMU. 5.1.10 Agree. Other processes are in place to address rangeland management and the impacts of grazing on biodiversity and watersheds. (Grazing will continue to be managed through operational range allotment management plans). Invasive species are addressed in 2.1.5: *Prevent the establishment of and control the spread of noxious and restricted weed species*. 5.1.12 Agree, however this is outside the mandate of the C5 FMP. The control of invasive species is addressed in the Weed Control Act. 5.2 All harvesting in the C5 is based on a sustainable harvest calculation that affects all timber disposition holders. Increasing the Community Timber Program allocation would necessarily entail reducing quota holder allocations; the latter also contribute significantly to community stability. 6.4 ASRD supports a science based approach to planning and decision making.	

			It is possible to be paralyzed by analysis. Uncertainty is a fact of life. The planning process will identify a desired future forest. The "Desired Future Forest" (DFF) is a spatially explicit projected range of conditions of the forest landscape 100+ years into the future. The range of desired future forest conditions establishes the goals towards which forest management activities will be directed. Detailed initiatives to establish thresholds and limits for land uses and activities falls outside the scope of the C5 forest management plan (perhaps this would be better addressed in IRPs).	
117.				