<div align="center">

Review Comments on:

**High Conservation Value Forest Assessments for the Alberta Pacific
Forest Management Area in Boreal Northeast Alberta**

Prepared by: G. Utzig, P.Ag.   7/19/04

</div>

1.0   INTRODUCTION

This document is a review of two preliminary High Conservation Value Forest assessment reports completed for areas relevant to the Alberta Pacific (Al-Pac) Forest Management Agreement Area of northeastern Alberta (Timoney 2003; Alberta-Pacific 2004). The review was completed for World Wildlife Fund Canada at the request of Tony Iacabelli, Senior Manager Landscape Conservation and Planning.

The first report under review (Timoney 2003) was prepared as a background report to broadly identify potential HCVFs within an area roughly defined as the Alberta portion of the Mid-Continental Canadian Forest Ecoregion (#92 of Ricketts et al. 1999), or the eastern portions of the Boreal Central Mixedwood and Boreal Highland subregions and extreme northern portion of the Boreal Dry Mixedwood subregion of Alberta. This will be referred to as the "background report." The second report (Alberta-Pacific 2004) builds on information produced in the background report, but focuses discussion on potential HCVFs within the Al-Pac management unit itself, which is a series of designated tenure blocks that include much of the area covered by the background report. This report will be referred to as the "Al-Pac report."

Not being personally familiar with northeastern Alberta, as a reviewer I am not able to provide detailed comments on particular species or environmental features, nor the accuracy of conclusions regarding specific areas or site types. However I have had considerable experience with various aspects of FSC and the HCVF concept. I was a member of the international Principle 9 Working Group that developed the Principle and Criteria in 1998, and have subsequently been the organizer of a Principle 9 workshop for the interpretation of Principle 9 in BC, been a member of the FSC-BC standards drafting committee, was a participant in a national workshop on Principle 9 for Canada, and have participated in a number of FSC certification audits in BC. Therefore the primary focus of this review has been on the approach, and whether the reports as a package are compatible with the FSC requirements and overall conservation intent related to HCVFs.

The basic approach taken in this review was to evaluate the Al-Pac report (including consideration of the Timoney report as background) with the overall requirements of meeting Principle 9, specifically the FSC Canada Boreal Standards (v3.0). In addition to the FSC standards themselves, there was also consideration of other reports written about interpreting Principle 9 in the global, Canadian, and regional/provincial contexts (e.g., ProForest – Jennings et al. 2002, FSC-BC 2002). The Al-Pac and background reports primarily referenced the Canadian HCVF National Framework and its series of questions (FSC Canada Working Group 2004, FSC Boreal Standard, v3.0, app. 4, p.151; earlier versions have been referenced as Johnson and Iacobelli 2002 Tembec Guidance on P9). Both reports under review are primarily focused on the ecological aspects of HCVFs, and therefore this review does not include any analysis with respect to the cultural aspects of HCVFs.

2.0   GENERAL COMMENTS

Both the background and Al-Pac reports are thoughtfully prepared, professionally written and clearly presented. Both reports demonstrate a reasonable understanding of the FSC concept of HCVFs, and further, they also both identify issues related to HCVF assessments and management that will require

further elaboration. Both reports make good use of existing information, while at the same time documenting the limitations of that information and identifying additional information gaps. The reports make excellent use of tables, figures, maps and appendices to convey complex concepts and spatial information in a effective and readable format.

The methodology and assumptions are presented in an open and transparent manner that allows the reader to understand the basis for their conclusions. Use of the FSC National Framework provides a generally comprehensive and repeatable approach. The two reports combined clearly meet the basic requirements for identification of HCVFs as part of the HCVF assessment process. However, to pass an audit for certification, there will likely need to be more specificity and rationale surrounding the management strategies to be employed for each HCVF identified.

The following discussions focus on some specific issues related to the level of detail required in a HCVF assessment, data gaps, and interpretations of FSC requirements and definitions (e.g., endangered ecosystems, a precautionary approach, overlapping tenures). Some of these are issues raised by the authors of the reports themselves, and the remainder are issues that arise from consideration of these assessment reports and the FSC National Framework approach in a broader context.

An underlying problem with FSC certification on this particular management area that is mentioned in both reports, is the significant impact created by overlapping tenures and other activities occurring on the landbase. It is unclear from the reports how much control Al-Pac actually has over the management of the ecosystems in the area, and whether management commitments made by Al-Pac during a certification process actually can or will be implemented over the long-term. It would seem that any certification of this area should also include participation of other forest license holders, and potentially other tenure holders as well. Purchasers of FSC certified products are not likely to assume that the products may have come from ecosystems that are being severely disturbed by natural gas exploration, or are soon to be obliterated for oil sands development. These issues should probably be addressed before the area is even considered for certification.

3.0   SPECIFIC COMMENTS

3.1   Background Report

The background report has assembled an impressive volume of information regarding species occurrences and their habitats. In general this provides an excellent basis for assessing the presence of fine filter HCVs. The transparent and systematic determination of "vulnerable" species is a useful approach that could likely be used in other HCVF assessments. Not being familiar with the area, I can not provide specific comments on particular species or elements, but the methodology is thorough, and therefore the results should be reasonable. In general the report was well prepared, and only those aspects with some level of concern are discussed below.

The report includes some very useful commentary on the HCVF assessment process in general, and on management concerns within the Al-Pac management unit itself (e.g., p.66 para. 6 – toolkit improvements, impact of petroleum and mining industries, p. 41, p. 43, p. 75, etc.). However these are scattered throughout the report, and it would be useful to have them organized into a single discussion section.

The background report does a comprehensive assessment of listing those species and some ecosystems that may warrant considerations as HCVs; however, it continually cites a lack of specific information on habitat requirements and/or distribution information as limitations to mapping individual HCVFs and designing specific management strategies. In an effort to reduce complexity and avoid paralysis due to those information gaps, the report ranks significant and vulnerable species, and then suggests

management focus on those with high rankings, or alternatively selected "umbrella" species and ecosystems. This approach has some merit; however, it also raises some concerns.

Conceptually, the HCVF approach is seen as a way to ensure that *ALL* vulnerable species and ecosystems will be conserved – focussing on only a select group (even a carefully selected group) will undoubtedly result in some species/ ecosystems being over-looked. Secondly, even though the "umbrella species" concept has considerable theoretical appeal, it seldom is seen to be fully effective on the ground. This is especially true if management is finely tailored to the umbrella species, as multiple species rarely have identical habitat requirements or potentials. As an alternative, one could identify the most important ecosystems and/or specific habitat elements required to sustain the focal species (i.e. the conservation attributes referred to in FSC Criterion 9.3), and use a precautionary "coarse filter" approach to protect a series of key habitats (e.g., riparian, wetland types, old growth types, etc.) and tailor management to maintain or enhance critical habitat elements (e.g., snags, coarse woody debris, early seral stages) where forest harvesting disturbance might be seen to be compatible with conserving HCVs and associated conservation attributes. For an example of a database linking species and habitat elements see the Columbia Basin data base at: http://habitat.cbt.org   (go to species and then to habitats, or download the database).

The overlay approach employed in the analysis section of the background report also raises similar concerns from a certification perspective. While this technique can be very useful in identifying HCVFs recognized as "concentrations of biodiversity values," and is also useful for efficiently selecting protected reserves as required under FSC Criterion 6.4 (i.e. coordinating HCVF reserves with Criterion 6.4 reserves), it should not be used as a primary factor in mapping HCVFs in general. It would run the risk of ignoring HCVs that have unique and habitat values that may have limited overlap with other HCVs (e.g., karst ecosystems, fire-dependent spp. habitat, or caribou habitat). Principle 9 requires the manager to protect all HCVs, not just those that happen to be concentrated in selected sites. It may also mean that only portions of the range of an HCV species would be managed, rather that sufficient area to actually maintain low risk to the species overall. Also some HCVFs will likely not require full protection, but rather the use of alternative management practices that maintain conservation attributes that are required to conserve the HCVs in those HCVFs. To place more reliance on this technique would require significant effort in selecting factors to consider, and their potential weighting (e.g., existing protected areas may be a poor indicator of conservation value; in this case, the inclusion of provincially significant ESAs would substantially alter the outcome).

The one area where the background report is weak is dealing with ecosystems that are anthropogenically rare, or likely to become anthropogenically rare (from bullet "b" of the definition "rare threatened or endangered ecosystems"). This weakness likely stems from a number of factors including: a lack of emphasis on ecosystem representation in the HCVF National Framework, partly due to the HCVF assessment being carried out in isolation of other aspects of preparing an FSC management plan (specifically aspects of Criterion 6.4, which requires identification of a representative reserve network within the management unit), and the lack of ecosystem mapping and representation data at an appropriate level of classification and spatial scale (as noted in the background report). The recommendations made in the background report regarding representation analysis (pp. 76-77), especially the use of ecodistricts and/or Alberta Vegetation Inventory data are useful suggestions. Ideally one should be working toward some kind of potential vegetation or ecosystem mapping, and assessing representation at various scales and with regard to various criteria. Although the concerns raised regarding the use of the WWF enduring features for representation analysis are valid, it is still a useful for measure of representation at broad scales for the specific features it is based upon (mainly landforms and broad vegetation patterns), and the outcomes may be generally comparable to other approaches (e.g., see Wells et al. 2004).

The questions from the National Framework focus on rare, threatened and endangered species and ecosystems for which there is evidence of past decline, but generally ignore issues linked to present and future vulnerability that is a likely outcome of present management trends. The background report discusses two specific ecosystems that are already becoming anthropogenically rare: old forests (pp. 58-62) and forests of the Dry Mixedwood Subregion (p. 73). Given the present rate of oil sands, natural gas

and forestry development in the management unit area, any ecosystem that consists of a productive forest type, or is generally underlain by natural gas or oil sands, and is without significant representation in a protected area, is likely to become rare to find in a natural state in the not-too-distant future. This combined with the potential utility of a coarse filter approach to some aspects of species management, emphasizes the need to consider increased emphasis on gap analysis as one factor in designating HCVFs – i.e. portions of ecosystems with low levels of representation in protected areas that are subject to significant levels of development pressure should also be candidates for HCVFs.

Other minor comments:

- Figure 2 (p. 15) – it would be helpful to include an outline of the Al-Pac management unit and protected area representation information regarding these types.

- Appendix Table 12 would benefit from headings repeated on each page; some columns are truncated.

3.2   Al-Pac Report

The Al-Pac report provides further analysis of the information assembled in the background report, including more specific information on possible management strategies for each type of HCVF. This report is also clearly written, making good use of tables and maps to portray rationale and conclusions.

Not being familiar with the area, I am not capable of providing specific comments on particular species or elements, but will primarily comment on the approach and methodology. In general the report was well prepared, and only those aspects with some level of concern are discussed below.

Framework Questions

#6 Comments do not deal with the issue of buffers surrounding existing protected areas. Some of these are covered in the "ESAs" under question o#11, but there should be a discussion about whether there may be a need to identify support zones for some of the existing protected areas. Given the shapes of the existing protected areas (small and square edges), this seems highly likely.

#8 Although there may not be presently available data regarding some of the rare types identified in the background report, Al-Pac should likely make a commitment to eventually designate areas supporting these types as HCVFs, if the types are eventually found within the management area.

#9 The identification of old forest types is appropriate; however, there may be other forest types and ecosystems that are quickly being lost in a natural state. Closer consideration should be given to reviewing gap analysis results and management trends into the future. Presumably Al-Pac's commitment to "reference areas" will at least partially address this issue (see also comments in section 3.1 and 3.4). Given comments in this report and the background report, HCVF designation of key areas of the Dry Mixedwood Subregion would seem warranted. An ongoing project by Phillip Lee, Senior Research Associate in Integrated Landscape Management at the University of Alberta may provide further useful information (Project Title: Identification and Description of Critical Habitats and Landscape Planning Units Based on Ecological Habitats).

#11 The use of the "environmentally significant areas" appears to be a good approach. The discussion regarding their similarities to HCVFs provides a clear rationale. The only concern would be whether any of the regionally significant areas may also meet HCVF criteria. It may be useful to review the regionally significant areas to ensure nothing of importance is missed, especially in light of ongoing development in some of the provincially and nationally significant areas.

Management Strategies:

There are three major concerns with the section on management strategies. These may in part be due to the preliminary nature of the report, but it is still worth noting them:

- A number of the ESAs identified as HCVFs indicate that they have "no special management practices proposed". Although there may be existing management practices that protect the conservation attributes present in those areas, it would be useful to provide a rationale that explains how the attributes are being managed.

- The primary concern about the management strategies presented is the lack of specific commitments regarding their outcomes. The strategies use vague language rather than specific actions or outcomes (e.g., "potential to expansion", "potential deferral sites", "potential management strategies", "potential candidate", "is recommended", "largely free of harvestable area"). The issue is especially important for the large intact forests. Prior to a FSC certificate being issued, there should be clear and specific commitments on the part of Al-Pac as to how individual HCVFs will be appropriately managed. Where decisions cannot be finalized due to lack of information or other concerns, there should be a minimum 5 year deferral of those areas to ensure values are not compromised, and a clear schedule of steps to resolve the issue in a timely manner. Assumptions about HCVFs have to be definitive enough to allow realistic assumptions for AAC calculations under FSC Criterion 5.6, and to satisfy other stakeholders and the auditor that HCVs are being protected.

- The question of what Al-Pac can actually accomplish, given the legal and administrative structure of their license area and agreement. The references to overlapping tenures, mixed jurisdictions and government restrictions are troubling.

The approach to utilizing gap analysis to review existing protected areas and environmentally significant areas for identification possible gap-filling reserves is an excellent strategy (also necessary for FSC Criterion 6.4). However, the use of the phrase "potential deferral sites" seems to indicate that these may only be temporary deferrals, whereas they should eventually be designated as permanent reserves.

The old forest approach appears to be reasonable; however, the return intervals presented for determining "natural" amounts of old may be open to some criticism. Recent work on boreal disturbance return intervals suggests that they me significantly longer in some areas than previously believed (e.g. Cummings et al. 2000). A range based on the relative uncertainty around the number may be more appropriate.

Following minimum legal requirements for management of caribou and other focal species may not meet the test of "precautionary" (a cursory review of the caribou strategy definitely raises some concerns). Rationale would have to be provided to show how the proposed management strategies for each of the HCVs are "precautionary".

3.3   FSC Criteria and Boreal Indicators

This portion of the review comments are organized according to the Criteria and Indicators found in Principle 9 of the Boreal standards.

3.3.1   Criterion 9.1

The two reports in combination generally fulfill the assessment requirements under Criterion 9.1, including the Boreal indicator 9.1.1 requirement to utilize the National HCVF framework. Presumably this review and other ongoing reviews will meet the requirements for outside review under Indicator 9.1.2. Indicator 9.1.2 also requires involvement of directly affected parties and indigenous peoples; however, it is assumed these requirements apply primarily to the cultural HCVFs that were not covered by these

reports. Indicator 9.1.3 also requires making the HCVF assessment and reviews available to the general public, which would have to occur subsequent to completion of the cultural HCVF assessments, and completion of all of the ongoing reviews.

3.3.2   Criterion 9.2.

This criterion deals with public consultation during the FSC certification audit, and is not relevant to the assessment reports under review.

3.3.3   Criterion 9.3.

This criterion deals with the management measures required to maintain or enhance specific conservation attributes that will ensure maintenance and/or recovery of high conservation values (HCV). Although the Al-Pac report is not a detailed management plan, it does lay out the broad management strategies proposed for maintaining HCVs, and these are generally consistent with the requirements under indicators 9.3.1 and 9.3.2 (except for the local community/ indigenous aspects that are not addressed in these reports).

However, the specificity of the management measures is not of sufficient detail to determine what level of risk will result for the conservation values, or whether they meet the test of precautionary management (indicator 9.3.3; preliminary enquiries indicate Alberta government wildlife regulations are generally not precautionary). There is also the issue of what impact other tenure holders will have on the ability of Al-Pac to ensure measures will actually be fully implemented on the ground (about 14% of the Central Mixedwood was under oil sand leases in 1997 – Alberta Environment 1997, p. 173; decisions regarding the McClelland Lake environmentally significant area are an example http://www3.gov.ab.ca/srd/regions/neb/IRPRev.htm). This has implications for FSC Criterion 1.4 also.

It would be helpful if specific "conservation attributes" were identified for each HCV, such that proposed management strategies could be linked directly to those attributes. Where the attributes were common to more than one HCV, this would then allow for the effective utilization of coarse filter management strategies where exact spatial locations were unknown or the values were dispersed over a large area.

3.3.4   Criterion 9.4

Monitoring aspects of HCVFs are beyond the scope of these preliminary assessment reports. However, given the wide array of high conservation values present in the management unit, and the complex overlay of tenure rights and management jurisdictions, designing and implementing an efficient and effective monitoring program, and ensuring that monitoring results provide meaningful direction to future management will be challenging.

3.4   National Framework Requirements

As required under Indicator 9.1.1 of the Boreal standards, both reports have followed the FSC Canada National Framework for assessment of HCVFs. Both reports have systematically addressed the questions posed in the national framework. Although the framework generally addresses all the categories provided in the definition of HCVFs, there are some elements that could be strengthened. Some of these issues were raised is the background and Al-Pac reports themselves.

The primary issue is the identification of "rare threatened or endangered ecosystems". In the original P9 discussions, this phrase was intended to be interpreted in the general sense, rather than the narrow legal sense as indicated by officially listed species and ecosystems. The emphasis on species-level fine filter assessment in the National Framework questions tends to miss what was intended. Comments in the

background report that call for more emphasis on coarse filter analysis in the assessments should be carefully considered (p. 66). I would suggest adding a question something like the following under category three HCVFs:

> *Are there ecosystems that are poorly represented in protected areas and under sufficient present and/or future development pressures that they will likely become rare in the future (at least rare in a natural state, or rare in certain conditions such that the occurrence of key habitat elements are significantly diminished (e.g., specific seral stages)?*

4.0 REFERENCES

Alberta Environment. 1997. State of the Environment Report – Terrestrial Ecosystems. Alberta Ministry of the Environment. Edmonton, Alberta.

Alberta-Pacific. 2004. High Conservation Value Forests (HCVF) within the Alberta-Pacific Forest Management Area: A Summary Report – Draft for Discussion. Alberta-Pacific Forest Industries. Boyle, AB.

Cumming, S.G., F.K.A. Schmiegelow and P.J. Burton. 2000. Gap dynamics in boreal aspen stands: is the forest older than we think? Ecological Applications 10(3):744-759.

Forest Stewardship Council – BC Regional Initiative (FSC-BC). 2002. FSC Regional Certification Standards for BC – Final 7-11-02. FSC-BC Regional Initiative. Vancouver, BC. 105pp.

Forest Stewardship Council (FSC) Canada Working Group 2004, National Boreal Standard, v3.0. Downloaded from www.fsccanada.org Boreal_3.doc.

Jennings, S., R. Nussbaum, N. Judd and T. Synnott. 2002. Identifying High Conservation Values at a National Level. ProForest. Oxford, UK.

Johnson, L. and T. Iacobelli. 2002. A Tembec Guidance Document on Meeting the Requirements of FSC Principle 9. Draft for Review. World Wildlife Fund. Toronto, ON.

Ricketts, T.H., E. Dinerstein, D.M. Olson, C.J. Loucks, et al. 1999. Terrestrial Ecoregions of North America. Island Press. Washington, DC.

Timoney, K. 2003. An Environmental Assessment of High Conservation Value Forests in the Alberta Portion of the Mid-Continental Canadian Boreal Forest Ecoregion. Report prepared for World Wildlife Fund Canada and Alberta-Pacific Forest Industries by Treeline Ecological Research, Sherwood Park, AB.

Wells, R., D. Haag and P. Field. 2004. The role of ecological representation in defining High Conservation Value Forests. Unpubl. report for: Slocan Forest Products Ltd. Richmond, BC.