

Oct. 20, 2005

To: Robin Sharples, Forest Management Branch EA Coordinator
From: Karen Baltgailis, YCS Forestry Coordinator

Re: Forest Development Plan for the Quill Creek Bench Harvest Planning Area in the Haines Junction Area

Dear Robin,

Thank you for the opportunity to respond to the above draft Development Plan. Please find YCS' comments below. We very strongly urge Forest Management Branch and the CATT planners to seriously consider these recommendations. The CATT Integrated Landscape Planning process to date has shown a real desire to protect social and ecological values while creating a wood supply for industry. The logging in the CATT could be of such high standards that eco-tourism operators could point to it as an added attraction, something for the community to be proud of, rather than a negative impact. This would not entail a huge reduction in volume, and it would make a great difference to the community and Yukon-wide support for logging in the CATT.

The forestry-based industry most likely to be economically successful in the CATT will most likely have an important bio-fuel component. Biofuel manufacturing, whether as compressed 'logs' or pellets, from manufacturing waste can be developed modularly. In other words, manufacturing can start small, providing time for training local workers, and minimizing the financial risk. Therefore there is no need to try to identify the maximum volume possible at this time. It would make far more sense to use the logging proposed in this Development Plan as a demonstration for the community, and a way to make sure everyone is comfortable with the development of a forest industry.

There are a number of good points in the Development Plan, such as withdrawing OU 5 for wildlife and visual reasons, following the Timber Harvest Planning and Operating Guidebook, protecting existing regeneration, designing wildlife corridors, and having the access not be permanent. However, there are a number of important changes that need to be made, which we recommend below.

Please feel free to contact me if you have any questions.

Sincerely,

Karen Baltgailis

1) Development Plan precedes the Integrated Landscape Plan:

The Development Plan states that this is an interim wood supply plan to provide wood while the ILP is being completed. However, the Development Plan estimates that approximately 200,000 m³ would be available from this area. At the Whitehorse Open House for the draft ILP, we were told that there could be approximately 750,000 m³ of wood in total for the whole CATT. This means that the current Development Plan deals with far more than a short term interim wood supply. It is not appropriate to plan such a large area and volume before the ILP is complete, since the ILP will be ready in less than a year.

Recommendations:

- Reduce the proposed harvest area and volume for this interim wood supply to more accurately reflect real interim needs of industry. Plan the rest of the area in accordance with the conditions set out in the ILP. The volume necessary to carry industry through until the ILP is complete is closer to 20,000 m³, than to 200,000 m³.
- Any block locations, layouts and prescriptions that are approved for this Development Plan must be open to changes to be consistent with the final ILP.
- There must be no long-term tenures until the ILP is complete.

2) Adaptive management:

The Strategic Forest Management Plan commits to adaptive management. It also commits to full community consultation, and to addressing social and environmental concerns. One of the most important factors in stability for industry is acceptance by the local community and the wider Yukon community of where and how logging occurs. The planning process for the ILP has been very good about soliciting input. The next necessary step to ensure wide-spread acceptance is to provide the assurance that if the results of logging cause concerns, changes can be made.

Recommendation:

- The final Development Plan must clearly commit to adaptive management. If concerns arise when harvesting gets going, for example unexpected visual impacts, impacts to tourism, if regeneration doesn't occur as anticipated, if impacts to wildlife are noted, etc., the Development Plan must be open to changes. (Note: Adaptive Management must not, however, be used as an excuse to ignore input at the current stage.)

3) Block Layout before environmental assessment:

It is disturbing that the Development Plan says that 25 cutblocks have already been laid out before the Environmental Assessment of this Development Plan began. Does this mean that the only changes Forest Management Branch is willing to consider are minor modifications within blocks? It defeats the purpose of an Environmental Assessment, if block boundaries and road routing are not open for discussion.

Recommendation:

- The EA must consider mitigations that include changing blocks, block boundaries and road lay outs.

4) Incompleteness of Development Plan:

The Development Plan provides inadequate information. It does not describe:

- what percentage of retention is meant by ‘variable retention’ and how it would be configured;
- how logging should be done to avoid spreading the diseases that have been observed;
- what the special values are in the cross-hatched zones, and why logging is justified in these zones or what special management is needed to preserve the values;
- how the ski trail system will be protected, and how skiers will have input into this;
- how access will be closed off after logging, and how access will be controlled in the years that the logging roads are open;
- what measures will be taken to ensure that logging does not increase fire hazard through slash or increased public access into the area;
- how OU’s 1 and 7 will be dealt with – i.e. another EA for these units is needed once the complete information is provided;
- what information the fisheries survey is meant to produce and how will it be incorporated into the plan.

Recommendation:

Defer the Development Plan for most of the Operating Units until the Integrated Landscape Plan and a better Development Plan provide answers to these and other questions.

5) In-block retention of large trees:

Ecosystem-based management needs to occur at the block level as well as the landscape, in order to ensure optimal forest regeneration, and maximum benefits to wildlife within cutblocks as well as around them. Therefore, while it is true, as the Development Plan states, that there are lots of other large dead and dying trees in the Planning Area, provisions for snags and large woody debris need to be made for the cutblocks as well.

A number of the proposed blocks are very large (larger than the 60 ha. maximum in the Timber Harvest Planning and Operating Guidebook,) Most of the blocks are larger than 10 ha. The Timber Harvest Planning and Operating Guidebook (THPOG) recommends at least 10% internal retention in blocks bigger than 10 ha. We are well aware that the THPOG provides guidelines and is not legally enforceable. However, the Development Plan states that in the absence of the ILP, best practices will be based on the THPOG. We are not insisting on a 60 ha block size limit. But it is essential that larger blocks have substantial in-block retention.

Since the understory is being protected and most of the overstory is dead or dying, the important ecological component that the logging will remove is mostly snags and coarse woody material. Research indicates that a minimum of 20 metric tons per ha of coarse woody material should be left in clearcuts in the boreal forest (Silviculture's Role in Maintaining the Boreal Forest, R.T. Graham and T.B. Jain, 1998). Coarse woody material is important for small mammal habitat, regulating soil moisture, shelter for white spruce seedlings, and long term nutrients. Snags are crucial for bird and mammal habitat, food and shelter.

10% retention of beetle affected trees scattered over all blocks larger than 10 ha. would help to provide snags and large woody material. However, this scattered retention would not be very effective in reducing line of sight. In some of the blocks the advanced regeneration may block line of sight, but where regeneration is patchy or less than 1.3 meters, this may not be the case. Also, cavity nesters tend to chose dense patches of snags rather than isolated ones for nesting. Therefore, in larger clear cuts there is a need for patches of internal retention, as well as scattered retention. The Forest Stewardship Council of Canada recommends a minimum of 25% in-block retention in both regular and salvage harvesting.

Recommendation:

- Maintain 10% of the merchantable sized trees scattered throughout blocks larger than 10 ha. In addition, maintain patches of in-block retention of merchantable-sized trees. The scattered retention and patches should add up to approximately 25%. These can be trees that are large but not economically desirable (e.g. trees that are twisted, forked, have rot, etc.)
- In the "green hatched" areas and riparian management zones 25% in-block retention should be the minimum requirement.

6) Protection of healthy large trees:

According to the Development Plan there is a small percentage of mature trees that have not been attacked by the beetles. It is not clear that all trees that are attacked will die. Trees that resist attacks or survive attacks likely have a genetic resistance to the beetles, and can provide a seed source for trees that are also genetically resistant.

Recommendation:

Do not harvest trees that have not been attacked. Leave all attacked trees that do not show signs of stress/ red needles, as they may still repel the beetles..

7) Riparian management Zones:

The Development Plan refers many times to riparian management zones in the Harvesting section. This is misleading because on page 7 it says that the prescription in the riparian management zones will not change because non-merchantable trees will not be harvested anywhere, and the spruce regeneration will be protected. There should be at least 10% retention of scattered large trees in the management zones to provide nesting

and perching sites, and eventually coarse woody material. In addition there should be clumped in-block retention for nesting and to block line of sight. For some blocks that fall within the “green hatched” wildlife classification the Development Plan proposes variable retention, which means keeping some of the merchantable trees in the cutblock. The same should happen in riparian management zones.

Recommendation:

- In any places that the Development Plan calls for variable retention, and in all riparian management zones, and all green hatched zones, scattered and clumped in-block retention should exceed 25%.

8) Green-hatched areas:

Since the Development Plan proposes variable retention in blocks that fall in the “green hatched” wildlife areas, all of Operating Unit 3 should also have variable retention. This was recommended during the environmental screening of OU 3 and ignored.

Recommendation:

- All of OU 3 should have at least 25% scattered and clumped in-block retention.

9) Season of logging:

It is very disturbing that Forest Management Branch continues to say that soil disturbance promotes aspen suckering. Numerous studies document the fact that soil disturbance inhibits aspen regeneration. Furthermore, due to carbohydrate reserves being lowest in the spring, early summer logging produces the least suckering. Late summer logging is bad for aspen regeneration because other vegetation has already leafed out, creating shade that inhibits sucker growth. Also, suckers resulting from late summer harvesting may continue to grow too late in the season and suffer frost damage. Harvesting in winter when the trees are dormant results in the most and fastest growing suckers. (University of Minnesota Extension Service “Regenerating Quaking Aspen: Management Recommendations” P Bates, et al, copyright 2002.)

In terms of spruce regeneration, summer logging is also not a good idea. YCS provided references showing this in our comments for the EA of OU 3, as follows:

The draft Development Plan suggests that harvesting can occur in summer, suggesting that soil disturbance from logging will promote soil mixing and better seed bed conditions for white spruce. Research shows that high density white spruce seeding after a disturbance is dependent on a mast year cone crop during the first two years after the disturbance. (‘Mast years’ are periodic years of high cone crops. In Alberta these occur approximately once every two to six years.) Even after fire white spruce seeding is not good unless the mast year cone crop happens within two years at most after the disturbance. If there is not mast year cone crop, the disturbed area instead converts from mineral soil to a less receptive humus layer, or in-fills with other plants that inhibit spruce seeding. (Natural Regeneration of White Spruce Following Natural Disturbance in the

Boreal Forest, 2001-13 Final Project Report Sustainable Forest Management Network, S.E. Macdonald et al.) This is likely what happened in the areas referred to on p. 6 of the draft Development Plan for OU 3, where there are “patches of grass on disturbed areas”. Grass is both competition for spruce seedlings, and a potential ground fire hazard.

The conclusion to be drawn from the above is that disturbing the duff layer and exposing mineral soil will not necessarily promote seedling establishment except if there are productive seed trees nearby, and a mast year. There is also considerable literature about the inhibiting effect of soil compaction, which can be caused by summer logging, on white spruce regeneration. For example, a Feb. 2000 BC Forest Service Research Note states that over four years of study height and diameter increments of white spruce seedlings decreased as the percentage of compaction increased. The report also notes that the most vigorous white spruce regeneration was on the last disturbed sites. (Fourth Year Responses of Aspen and White Spruce; the BWBS Long-Term Soil Productivity Study, R. Kabzems, BC Forest Service, Prince George, Prince Rupert and Caribou Forest Regions, Note #LTSPS-02, Feb. 2000.)

Harvesting is much less likely to damage existing regeneration when it is covered by snow. One of the primary directives in this Development Plan is to protect existing regeneration. This alone is a good reason for winter harvesting only.

Another reason that winter logging is more desirable is that roads do not have to be as developed. This is better in terms of limiting increased access to the area using logging roads.

The issue of logging season was inadequately addressed in the EA Screening Report for Operating Unit 3.

Recommendation:

- Winter logging only.

10) Proposed road through the wetland between OU 3 and OU4:

The trail through the wetland between OU's 3 and 4 should absolutely not be upgraded to a logging road. The Development Plan says that wetlands will be protected. Building a road through a wetland is the furthest thing from protection, especially since it is proposed for summer use! There must be a better way to access OU 4.

Recommendation:

The trail between OU's 3 and 4 must not be upgraded to a road. Other access to OU 4 must be found.

11) Moose:

The Development plan says logging may enhance moose habitat (p. 6, 7). Moose need winter thermal shelter, and visual shelter, not just browse. The main reason moose

numbers in the area are declining is likely over-hunting. Improved road access will increase hunting, hence lower moose numbers. It will be years before the logging roads are closed, since this area is being seen as a timber source for at least the next 5 years. It will be important to ensure that the limited entry hunt is enforced.

12) Forest health:

It is good that disease issues have been observed and documented. However, the Development Plan does not address how to ensure that the observed diseases will not be spread or intensified by logging. There is just a vague reference to 'site preparation'.

Brown cubical butt rot spreads along roots, but also through fire scars and wounded roots. The fungus can persist in dead stumps and roots, and infect the roots of developing trees. (USFS R6 Forest Disease management Note, website updated July 2005.) Summer harvesting increases the possibility of wounding roots as the soil is exposed and spruce have very shallow root systems. There is no known method of controlling the disease in forest stands. Losses may be reduced by minimizing stand entries and basal fire injuries. (USDA Forest Service – Forest health Protection. R8-PR16.98.)

Armillaria is a root disease not a heart rot as the Development Plan states. Logging that creates stumps on root-diseased sites can increase the incidence of armillaria. "When a tree with one or more active or dormant armillaria lesions is cut, the stump and root system is rapidly colonized by the fungus. In stands that have been commercially spaced, thinned or selectively cut, these new sources of inoculum can upset the balance that may have existed between host and fungus such that the increase in the inoculum potential is sufficient to overcome host resistance." (Canadian Forest Service, Pacific Forestry Center, Forest Pathology Armillaria Root Disease.) Stump removal is recommended to avoid this. However, stump removal is expensive. Also it almost impossible to pull out all of the roots.

For both of the above diseases it makes more sense to avoid logging infected patches. Logging can create conditions where both diseases spread and become worse.

Recommendation:

- Avoid logging stands that are infected with diseases.
- The Development Plan needs to provide much more information about the diseases that have been identified in the area, and how to avoid spreading or intensifying them.