Critique by the Sunshine Coast Conservation Association of the Community Forest Timber Supply Analysis prepared for the District of Sechelt by Brian Smart

Introduction

On July 19, 2005, SCCA Executive Director Daniel Bouman appeared before the Council of the Town of Gibsons to discuss the Town's *in-camera* motion to support the District of Sechelt's application for a Probationary Community Forest Agreement. During this presentation the statement was made that the District's Timber Supply Analysis for the proposal area, did not confirm a sustainable timber supply outside the community watersheds after the initial five year term of the proposed license. The question was raised; if the watersheds are not going to be logged in the next ten years, where is the timber supply going to come from? A recommendation was made that the Town retain its own expertise to advise on the implications of the timber supply situation in the proposal area. The purpose of this paper is to give local elected people and others, some direction in considering timber supply information and all the implications of allowing the community drinking watersheds to become part of a new logging license.

Executive Summary

The Timber Supply Analysis commissioned by the District of Sechelt for its Probationary Community Forest Agreement application shows that there is sufficient wood available, outside the community drinking watersheds, to satisfy the requirements of the license for 5 years. It does not show that there is sufficient wood beyond the first 5 year term to achieve a sustainable operation over the midterm. This situation is static and will not change even if it is assumed that watershed logging will occur. If this license is awarded, there will be enormous pressure, after the first 5 years, to compromise environmental standards everywhere within the community forest land base, or face operational deficits and/or investment losses. In essence, the District's application for a logging license is not economically or environmentally sustainable and as presently written, is not in the public interest .

Background

In the course of developing forest land for sustainable harvesting, Timber Supply Analysis is a key level of consideration because it examines the physical condition of the land, its capacity to produce timber over time and the

impacts of a range of constraining obligations and influences.

The Sechelt Community Forest Tenure Timber Supply Study (March 12, 2005) was commissioned by the District of Sechelt (DOS) to also determine “what potential areas would be required to meet a community forest allowable annual cut (AAC) of 20,000 cu. Meters per year, both in the short and the long term”.

The land base of the proposed tenure is made up of five separate and distinct areas, including portions of the Gray Creek drinking watershed, the Chapman Creek drinking watershed, and areas on the community's urban interface in West Sechelt, Wilson Creek, and Sandy Hook (Angus/Burnett)[1].

Timber Supply Assumptions and Questions

This analysis was based on Ministry of Forest's (MOF) data and is preliminary in nature. It considers mostly gross data and does not include an analysis of environmental regulation and its impact at a spatial level.[2] This analysis first calculates the total productive land from all five contributing areas, then establishes a figure to represent the average amount of wood fiber that is grown per year and per hector. This figure is called the Mean Annual Increment (MAI). Given proper forest management (and a history of same), an AAC that is set below the product of the MAI multiplied by the number of productive and available hectors, should be sustainable (assuming that lands needed for other biological services and the needs of species at risk are "not available").

In this analysis, the District has asked the question; is there sufficient unconstrained timber available now, outside the Gray and Chapman drinking watersheds, to meet the AAC during the five-year probationary period (the short term) and is there also sufficient timber supply to fullfill license obligations in the mid and long terms? The SCCA has raised additional questions;

- Is there sufficient available timber to meet the AAC requirement outside the drinking watersheds during a second five-year period?
- What are the environmental and economic impacts of satisfying an AAC that is based on the productivity of 5081 hectors, in an area of only 2737

[1] Note: in the past the Ministry of Forests (M0F) maintained a policy of not logging crown lands that fell within urban interfaces. This policy was changed when insufficient short-term timber supply became apparent. The 1990 Timber Supply Options Report predicted conflict with community values.

[2] Green-up requirements, for example, are a spatial constraint. There may be land with mature timber that is not available for harvesting because it is adjacent to fresh harvesting that hasn't greened up.

hectors?[3]

- Is it reasonable to assume that the District will be able to meet its commitment not to log in the Chapman drinking watershed and the Gray drinking watershed for 100 - 150 years and 10 - 15 years, respectively? [4,5].

To answer these questions, it is necessary to examine the data of the analysis and consider the condition of the areas proposed to contribute to the license.

Timber Supply Analysis - Age Class Distribution.

Summary of the proposal area's age class distribution table for all five proposed tenure areas, which covers 5698 hectares of productive forest in total:

Age Classes	Hectares	Percentage of Whole
1	1723	30.2%
0, 1, 2, 3 (immature)	3881	68.1%
4, 5, 6, 7, 8, 9 (mature)	1617	28.4%

This table clearly shows that extensive over-cutting in the proposed tenure areas has already occurred and that recent logging has outstripped annual productive capacity by many decades. This can be seen from the fact that the area occupied by age class 1 stands (10 - 20 years old) is larger by itself than

[3] The net productive area outside the Chapman and Gray areas is, according to the analysis, 2737 hectars.

[4] The District of Sechelt had previously stated it would not log in the Chapman watershed for 20 - 40 years.

[5] Under the terms of a "Community Forest" license, would the DOS have the authority to commit to not logging in these community watersheds? In August 2004, Forests Minister Abbott wrote to the SCRD that, "The Province is not seeking further protection of lands in the watershed. The balance of Crown land in the watershed and in the Provincial forest is available for sustainable resource development." Does the DOS have written indication from the Minister or the Ministry of Forests that its commitment not to log in drinking watersheds is acceptable to government? This is a key question for Sunshine Coast residents.

the entire area occupied by mature[6] age classes 4, 5, 6, 7, 8 and 9 (60 - 250+ years old). Also, the license area's recently logged land base is 234% larger than the entire mature productive area.
Obviously, there is a severe age class imbalance in the proposal area that will have a major negative impact on timber supply for at least the next 60 years. Consequently, timber supply over the short and intermediate term will always be problematic. The intention of the District to log outside the community watersheds for a 10 year period means that the AAC will be concentrated in 2637hectors instead of 5081 hectors. Again, it should be obvious that this concentration of harvesting will aggravate an already problematic timber supply situation by converting more land to younger age classes.

It is notable that the analyst confirms that there is a 5 year timber supply available in the proposal area and outside the watersheds but offers only speculation on timber supply in the following 5 year period. As well, a fall down in timber supply for the intermediate term is predicted by the analyst.

Currently Available Wood

In order to better understand the reality that is summarized in the proceeding table it is necessary to consider individually the condition of each of the five areas of the proposal.

Current Wood Availability With Net Downs (from Timber Supply Study)

6 In the early 1990's timber on the Sunshine Coast was not considered harvestable prior to age 120 years. This was later changed to 80 years and has now been reduced again to 60 years (age class 4). This shifting figure is supposed to represent the optimum age (culmination) at which to log, i.e. at the peak age where annual fibre growth (MAI - maximum annual increment) begins to fall off. The changes appear to have little to do with a substantive change in calculating this optimization and more to do with maintaining the level of cut in the face of dwindling, short-term mature timber supply. While this can maintain the AAC in the very short term, it has an adverse environmental effect on forest stands (more disturbance), and substantially increases the cost of harvesting, while producing product with diminished economic value.

Tenure Area	Gross Area (ha)	Net Productive (ha)	Current Wood Availability (ha)	As % of Gross Tenure
Angus/Burnett	3434	1099.9	91.3	2.6%
West Sechelt	1146	900.9	188.8	16.5%
Wilson Creek	1117	736.4	144.0	13.0%
Chapman Creek	3063	740.4	24.2	0.8%
Gray Creek	3047	1603.6	142.6	4.6%
	11807	**5081.2**	**590.9**	**5%**

[7]

The **Angus/Burnet** tenure area contains a major tributary to Gray Creek, Nailor Arm, which is a potential addition to the regional water system. Interfor abandoned 4 cutblock approvals in this drainage in 2003 and deactivated its road access system. The area of these former cutblocks has significant stands of Marbled Murrelet nesting habitat[8] that may not be available in the short or mid-term.[9]

The **West Sechelt** tenure area has available timber. However, this timber is mostly in one contiguous stand adjacent to Crowston Lake. Green up requirements will limit the rate at which this stand can be harvested. As well, there are constraints related to visual quality, fish habitat and recreation.

The **Wilson Creek**. tenure area is highly controversial. Wilson Creek residents objected to the loss of Community Watershed status for this drainage in 2001. Interfor harvested extensively in this area between 1997 and 2001. The Ministry of Forests imposed a moratorium on logging development in 2001 pending

[7] The distinction between Available Timber and Available Wood is unclear.

[8] The Marbled Murrelet is recognized as a *Threatened* species by both federal and provincial governments. It is an offense under the Speciesat Risk Act to disturb the residence of this small seabird

[9] The Identified Wildlife Management Strategy (IWMS) is the provincial process that deals with the needs of at-risk species in British Columbia. To date, the needs of at-risk species in the Chapman Landscape have not been addressed

results of a Coastal Watershed Assessment Process.[10] Also of note, AJB Investments and Weyerhaeuser own large tracts of private land in the Wilson Creek watershed which can be logged without regard to cumulative effects on the watershed. Realistically, there is no timber land available for responsible harvesting in this watershed in the foreseeable future.

It is significant to note that of the total proposed tenure area; only 5% currently meets the minimum age and volume requirements for logging. When Chapman and Gray Creeks are subtracted from the total available area, this percentage shrinks to a mere 3.6%. It should also be noted that the calculation for "mature timber" includes Age Class 4 (60-80 years old). Stands of this age have not reached the Age of Culmination[11]. Logging in this age class is not prohibited but is highly wasteful and clearly not "sustainable"[12].

Timber Supply - Economic and Ecological Implications

Sustainability is the key concept within a timber supply analysis. It ties the amount logged on an annual basis to the amount of wood that is estimated to grow per hectare per year, or mean annual increment (MAI). This results in an estimate of how much wood fibre is accumulating within an area with the goal of logging no more each year than the amount that grows each year. Based on that, this study concludes that an Annual Allowable Cut of 20,000 cubic metres per year is 'sustainable' for the initial five year "probationary period, and likely for another eight to ten years after that"[13]. "The long term timber supply … will face a shortfall beginning approximately 2020 for about two decades."

Considering the condition of the proposal areas and the environmental constraints that are already in effect it is readily apparent that a large investment in planning will be required prior to any harvesting activity. As well

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[10] Forest Development Plan approval letter from MoF District Manager Greg Hemphill to Interfor Forester Jeff Pollock, July 10,2001; "prior to proposing future development in the Wilson Creek watershed a CWAP must be carried out."

[11] The Age of Culmination is reached when a stand has developed its maximum volume. Subsequently stands tend to loose volume but the surviving stems tend to increase in value. Age Class 7 stands (120-140 years) generally tend to contain the best mixture of volume and log grade in coastal low and mid slope ecosystems.

[12] The term "sustainability" is broad term referring to the maintenance of forest productivity and a range of biological values and services over time. Harvesting of stands that have not reached at least the Age of Culmination is a strong indication that the timber inventory has been substantially degraded.

[13] The word "sustainable" is mis-used in this context. It may be appropriate to say that there is "wood available ". The fact that some wood is available over a 5 years does not necessarily imply sustainability.

there is more environmental regulation coming into effect in the near future that will affect timber supply.[14] All these factors combined indicate that after the initial 5 year period of harvesting and investment, timber supply will be problematic and constrained. The analyst recognizes these constraining factors;

- Accuracy of the inventory data,
- Market prices for hemlock and balsum,
- Greenup rates affecting adjacency constraints,
- Commercial thinning viability, and
- The community's opinion regarding selective harvesting within Chapman and Gray Community watersheds."

What are the options for resolving these timber supply difficulties? One obvious solution is to reduce the ACC to a level that is suitable for the areas outside the community drinking watersheds. A more reasonable volume for the Community Forest during the first 15 year period is approximately 10,000 cu. m/year, based on the study's Long Term Productivity Results for the West Sechelt, Wilson Creek and Angus/Burnett tenure areas. Unfortunately, a cut of this size is insufficient to justify the necessary investment. In other words, a community forest based on harvesting only 10,000 cu/m per year may be ecologically sustainable but is not economically viable.

Another solution may be to add additional land to the tenure area. Unfortunately, the Ministry of Forests has been very clear that (except for the West Sechelt portion) none of the productive land base surrendered to the crown as part of the "tenure take back" program will be made available to the Sechelt proposal.[15]

The last option is the most likely and also the most disturbing. That is to seek relief from existing and future environmental regulation and pursue logging in the community watersheds, especially Gray Creek and its tributaries.

As this proposal currently stands, it is difficult to imagine that there is any short or intermediate term economic benefit for Sunshine Coast residents.

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[14] Both federal and provincial governments have committed to a recovery program for the Marbled Murrelet. This will involve old growth retention for nesting habitat. Currently there are no Wildlife Habitat Areas in the Chapman Landscape Unit for any at-risk species.

[15] With exception of Canfor's West Sechelt chart area, none of the lands made available to the Sechelt CF are from the "take back" program. The Chapman, Gray, Sandy Hook and Wilson Creek areas are currently Interfor chart areas and part of their dead license. Interfor has not been able to harvest to the terms of their license in these areas for at least the last 15 years.

It should be noted that there is a significant economic benefit to the major licensees of this forest district inherent in community forest proposal. If a new logging license can be established over this landbase, these areas will continue to contribute to the timber supply calculations of the entire forest district ensuring that a downward adjustment in cutting rates does not occur.

Timber Supply - Social and Ecological Implications

The AAC calculation for the land base of the District of Sechelt Community Forest proposal has been significantly inflated in the short and intermediate term with the inclusion of the Chapman and Gray Creeks' annual growth increment. This will result in excessive harvesting and concentration of harvesting in the three remaining tenure areas, creating environmental degradation in forested areas close to the respective communities. The socially significant ecological benefits that are currently provided to the public from these areas include; community water supply, fish and wildlife habitat and recreation.
The timber supply analyst asserts that there is sufficient timber to meet the AAC for the five-year probationary period but provides only speculation about further timber supply.

One of the speculations involves the "The community's opinion regarding selective harvesting within the Chapman and Gray Community watersheds". The community's opinion on the issue of watershed logging has been remarkably consistent for over a generation and is not going to change. It is the often expressed will of the public that the watersheds not be subjected to an industrial license of any kind.

The main social implication arising from the Timber Supply Analysis is that if this license is established, within 10 years the public will be asked to either support watershed logging and other degrading practices or sustain the loss of a large publicly funded investment. We submit that all elected people have a duty to ensure that this situation does not arise.

Questions Raised
No logging in Chapman for over 100 years would mean: no logging for the entire duration of even the longest community forest tenure license available (99 years). Under what authority would that be permitted? What role would a licensee have where logging operations are not scheduled?
Chapman Creek is shown on the study’s Short Term Timber Availability Table as having just 24.2 ha. of currently available wood, which begs the question: why is this community watershed considered for a community forest logging tenure? Gray Creek has 1328 ha of age classes 1, 2 and 3 stands with just

142.6 ha of currently available wood largely in age class 5 stands. Again, why is it being considered?
The overlapping of the Community Forest land base with the BC Timber Sale chart areas that are still prominently displayed on the DOS tenure areas map has not been addressed. How were the small timber licenses (ownership 70-N) that existed at the time of the IWMP (1990's) expanded into timber sale tenures and under which Ministry authority was this done?
There has been a recurring rumor that the Timber Sale tenures in the watersheds will be reassigned to the community forest if the District's probationary license is awarded. Does this mean that the community forest could be assigned a larger AAC? If so, would this new tenure area be subject to logging proposals?

Conclusions

The inclusion of the community watersheds in the calculations used to determine the community forest AAC will result in a significant overcut in the other three tenure areas every year.
An acceptable case has not been made for including the community watersheds in the Community Forest license tenure areas. Their inclusion has caused the 'productivity' of the license area to be overstated in the short term with the result that the Allowable Annual Cut is approximately 10,000 m3/year too high.
The Timber Supply Study states in its first sentence that it is a preliminary view of what areas would be needed to meet the Sechelt Community Tenure Cut of 20,000 m3/year. It works with gross inventory figures, and does not net down for decay, waste, breakage, operability or predictable future environmental constraints. By working at preliminary gross inventory levels the study is incapable of accurately predicting whether the 20,000 m3/year cut AAC requirements could be met after the first 5 year period even if logging in the watersheds were to be undertaken immediately.
Adjacency is a severe constraint in West Sechelt, where almost all the 'accessible wood' is located in a contiguous stand on the east side of the tenure area near Crowston Lake. The Wilson Creek watershed also has adjacency issues and is in a highly disturbed condition. There is currently no timber available for harvesting in this watershed. Generally speaking, existing environmental regulation poses a significant obstacle to forest development planning and the condition of the proposal area is best described as *logged out*.
Although the Ministry verbally says it is up to the District of Sechelt, whether the watersheds are logged over the next 15 years, it has never said the assigned AAC does not have to be met. Community decision makers need to retain their own expertise in order to understand the legal status of the District of Sechelt's

motion to defer harvesting development in the Chapman and Gray community drinking watersheds.

A little understood and highly contentious issue is the legality of Ministry of Forests control over community watersheds. The land status *Watershed Reserve* has never been revoked. In previous Timber Supply Reviews, conducted by the Ministry of Forests for the whole district, these watersheds were assigned the ownership code of 70N indicating non-contributing Watershed Reserve. There are disturbing questions about the legality of assuming that these reserves can contribute to the AAC of a new logging license.

This community, through strong public support has stopped industrial activities in the Chapman and Gray Creek community drinking watersheds for 13 years. So far, there is no clear indication that inclusion of these watersheds in a community forest license will produce any benefit to the community whatsoever.

The pending Watershed Management Agreement (to be signed at a special ceremony in September) between the Sunshine Coast Regional District and the Sechelt Indian Band Government does offer a benefit to the public. In this agreement, the parties agree to assume and pursue joint management authority over the drinking watersheds. It is implicit in the agreement that any signatory to the agreement seeking to undertake an activity in the Chapman/Gray watersheds, would be obligated to seek the approval of the SCRD/SIBG Joint Management Committee. Perhaps the Town of Gibsons should ask the District of Sechelt what their view of Watershed Management Agreement is.

Recommendations

- Maintain support for the SIBG/SCRD Watershed Management Agreement,
- Retain independent expertise to evaluate timber supply information and other forestry related issues,
- Continue to support the public will that the watershed be managed without obligation to industrial interests,
- Allow the public to express its concerns with the Community Forest application through open public meeting,
- Do not become a supporter or partner in this enterprise unless it is the

expressed will of the residents of the Town.

Brad Benson
Daniel Bouman
Linda Williams

For the

Sunshine Coast Conservation Association
PO Box 1969
Sechelt, BC V0N 3A0