

Allowable Annual Cut Recommendations for the Powell River Community Forest

Submitted to:

Mr. Greg Hemphill, President

Powell River Community Forest Board of Directors

Submitted by

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Final



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Executive Summary

The Powell River Community Forest (PRCF) was issued in August 2006 and covers approximately 7,100 ha. The current Allowable Annual Cut (AAC) of the community forest agreement (CFA) is 25,000 m³ per year.

The engineering and resource consulting group, Ecora, was retained by the PRCF Board of Directors (BOD) to complete inventory and timber supply analysis work in support of a new AAC. The BOD has retained Jim Snetsinger (the author) of Industrial Forestry Service Ltd to review the key timber supply related issues and provide recommendations to the PRCF BOD regarding a potential new AAC for their community forest, along with recommendations for advancing their new AAC with the public and the Ministry of Forests, Lands and Natural Resource Operations (FLNRO).

Since commencement of operations, the PRCF has made significant efforts to improve forest inventory-related information in order to better determine the characteristics of the existing growing stock and to refine the growth potential of future tree crops.

The three areas of forest inventory-related information that PRCF has improved upon are as follows:

- (i) In 2014, the production of new vegetation resources inventory (VRI) as an upgrade from the existing 1991 VRI.
- (ii) Acquisition of LIDAR data in 2012 and aerial digital frame imagery in 2013.
- (iii) In 2014, updated Terrestrial Ecosystem Mapping was completed.

Ecora utilized this information and completed their timber supply modelling and analysis. The timber supply analysis base case forecast completed by Ecora demonstrates that the PRCF could support a sustainable harvest level of 44,500 m³ per year.

Ecora was also asked to complete a number of sensitivity tests to determine potential timber implications with any risks and uncertainties that may be associated with the information and assumptions that were used in the timber supply modelling process. After reviewing the sensitivity analysis completed by Ecora, it is the author's opinion that the BOD considers some downward adjustments to the base case timber supply forecast. These suggested downward adjustments of 12% (approximately 5,340 m³ per year) would bring the base case harvest level from 44,500 m³ per year to 39,160 m³ per year.

The PRCF has had a very successful beginning, and is currently receiving a high level of public support. However, there is a potential risk that a new AAC that is 57% higher than the current

AAC may cause some negative public reaction. Should the Board of Directors want to minimize the risk of negatively impacting the successful foundation they have developed for the community forest, they may want to exercise additional caution and set the AAC at an even lower level of 35,000 m³ per year (i.e. a 40% increase) for the next 5 to 10 years. There are some obvious economic, ecological and social benefits to this approach including the following: facilitate harvesting stands at higher volumes per hectare than modelled in the timber supply analysis completed by Ecora ; allowing stands to grow longer should result in an increase in harvested piece size which generally translates in higher economic returns; retaining a larger component of mature timber on the land base over time could have positive ecological implications ; and a lower harvest level could reduce the potential of conflicts associated with non-timber values such as water quality/quantity and outdoor recreation use.

Exercising the precautionary principle further, and allowing forest management activities on the community forest to further demonstrate performance even at an increased AAC level, could facilitate further AAC increases in the years ahead.

That being said, I believe the Board of Directors should feel comfortable that their community forest can be sustainably managed at an AAC level somewhere between 35,000 m³ per year and 40,000 m³ per year.

One of the goals of the provincial community forest program is to promote community involvement and participation. From my discussions with those associated with the community forest, it appears that a positive climate of open dialogue and responsiveness to concerns has developed since its inception. As a result, I believe the PRCF should build on this foundation of transparency and openness and fully seek input from the local public on any new proposed level of AAC. The following report outlines my review of the timber supply analysis and supporting documents and provides recommendations regarding a new AAC and public consultation.

Allowable Annual Cut Recommendations for the Powell River Community Forest

1 Introduction

1.1 Background

A community forest agreement (CFA) is an area-based tenure issued by the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) which provides the right to harvest timber in a specific area of crown provincial forest. The City of Powell River is the holder of Community Forest Licence K3G in the Sunshine Coast Timber Supply Area (TSA). The CFA is managed through the limited company Powell River Community Forest Ltd., which was established in 2006 with the City of Powell River as the sole shareholder. The CFA Board of Directors is made up of nine volunteer members.

The Powell River CFA (PRCF) was issued in August 2006 and covers approximately 7,100 ha as shown on the map in Section 2.1 of this report. The current Allowable Annual Cut (AAC) of the CFA is 25,000 m³ per year.

The PRCF Mission Statement is as follows:

“to manage crown resources in the most biologically sound manner addressing all resource uses and serving to diversify the local and regional economy.”¹

The Objectives of the PRCF are as follows:

- Maintain healthy and productive forest ecosystems.
- Deliver sustainable forest management practices.
- Protect the water quality in the Haslam Lake and Lang Creek community watersheds.
- Provide opportunities for local contractors, mill owners and value-added manufacturers.
- Protect key forest recreation resources.
- Achieve clear business and financial performance targets.
- Use profits as a foundation for investment in the community².

1.2 Purpose

While the PRCF has been operating successfully for approximately 10 years, almost 3 years ago the Board of Directors (BOD) recognized the need to review and update the AAC for the CFA. In

¹ <http://bccfa.ca/index.php/becomeamember/members/item/66-powell-river-city-of>

² <http://prcommunityforest.ca/>

preparation for setting a new AAC, the BOD has made investments in a number of key information needs including improving the Vegetation Resources Inventory (VRI) and the Terrestrial Ecosystem Mapping (TEM) data sets by making them more specific to the CFA area. In addition, the Light Detection and Ranging (LIDAR) remote sensing data, along with 2013 digital air photo imagery the CFA acquired, was utilized to improve the VRI which is a foundational element in the timber supply review process. The engineering and resource consulting group, Ecora, was retained by the PRCF BOD to complete the above mentioned steps leading up to their timber supply analysis. The BOD has retained Jim Snetsinger (the author) of Industrial Forestry Service Ltd, to review the key timber supply related issues and provide recommendations, with supporting rationale, to the PRCF BOD regarding a potential new AAC for their community forest, along with recommendations for advancing their new AAC with the public and FLNRO.

1.3 Methodology

Preparation of this report included the review of existing inventory and timber supply reports from Ecora, watershed assessment reports from hydrological consultants, and pertinent sections of relevant reports from the local Regional District. In addition, a trip was made to Powell River in early September 2015 in order to speak first hand with available BOD members and the CFA managing forester of Results Based Forest Management Ltd. This visit also included a field review of the CFA area in order to gain a better understanding of operating conditions, forest stand dynamics, reforestation performance, and other values including water and recreation resources. The following report represents the findings and recommendations of the author.

2 Description of the Community Forest

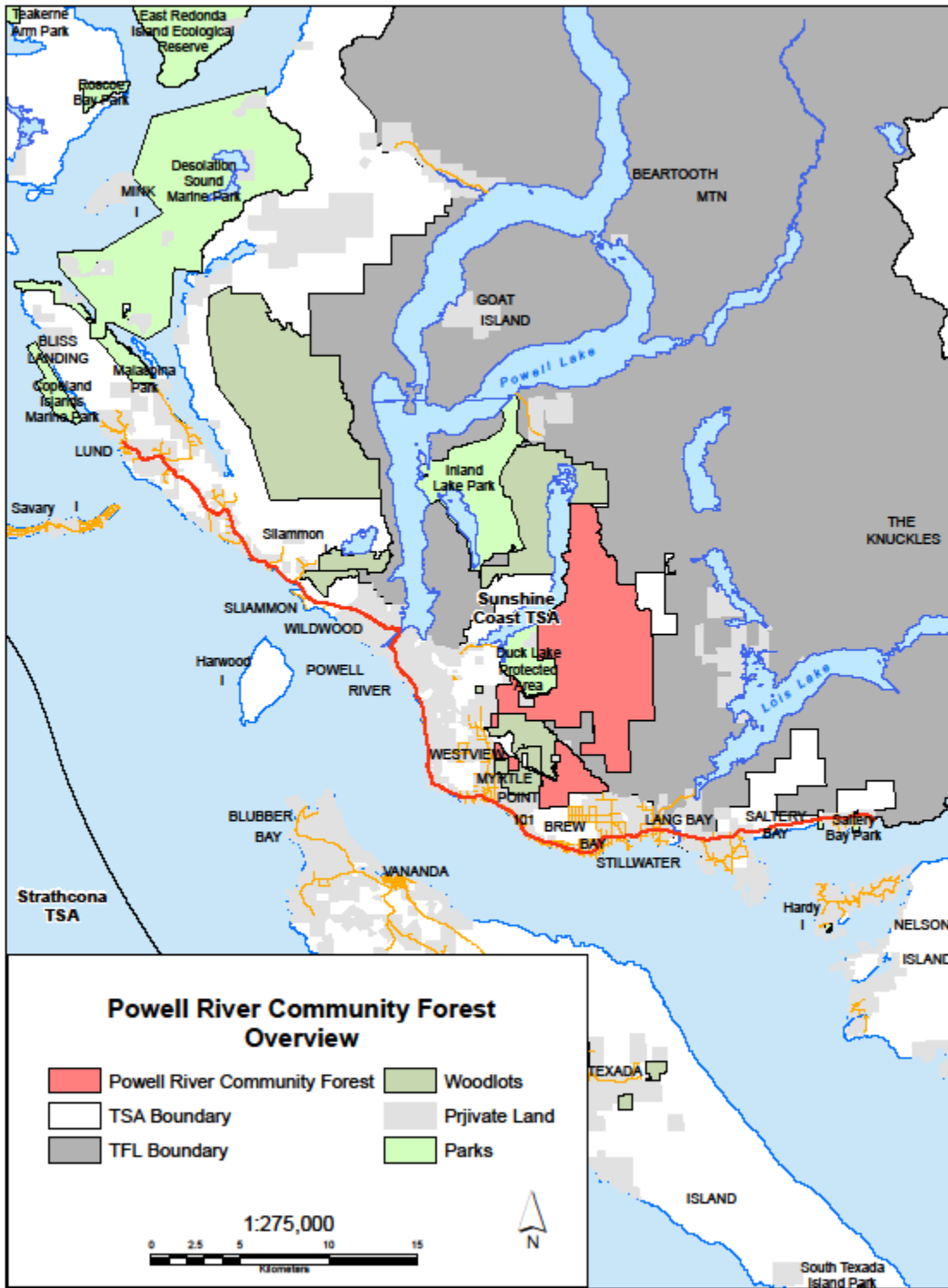
The following sections provide a brief synopsis of the key elements that describe the PRCF.

2.1 Location of the Community Forest

The PRCF is located in the Sunshine Coast Natural Resource District, Managed by the Ministry of Forests, Lands and Natural Resource Operations. It is situated just east of the Community of Powell, shown on Figure 1 below. The community forest is bound by the Duck Lake Protected Area and Haslam Lake.³

³ Powell River Community Forest Timber Supply Analysis, In Support of Management Plan, Ecora Engineering and Resource Group Ltd., October, 2015

Figure 1 Map of the Community Forest



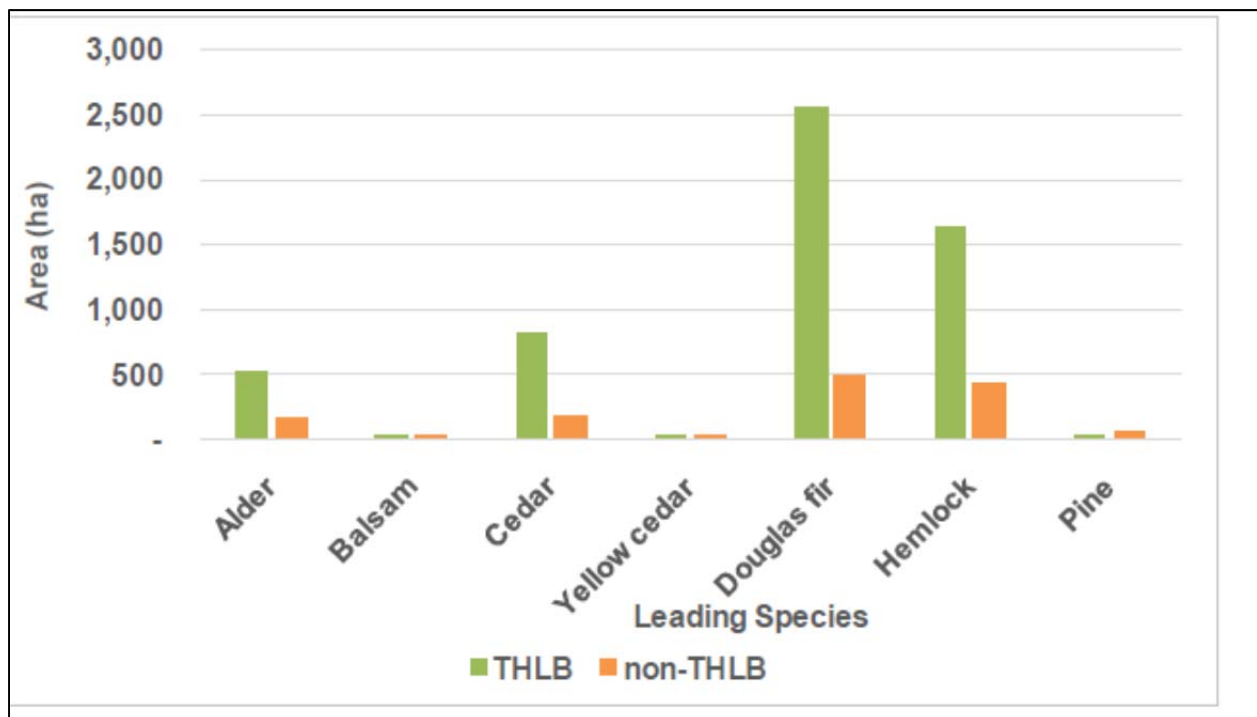
2.2 Description of the Forest Resources

The dominant coniferous tree species in the PRCF are Douglas-fir, western red cedar, and western hemlock, with lesser amounts of western white pine. At elevations of 600 m and higher, amabilis fir and yellow cedar occur with western red cedar and western hemlock. In localized areas of wetter and/or rich soils, red alder typically represents a sub-component of forest stands. Arbutus and big leaf maple occur sporadically in suitable micro-habitats within the PRCF, including on exposed outcrops and at the base of coarse talus slopes.⁴

2.3 Leading Species

The figure below shows the leading species in the PRCF. The Timber Harvesting Land Base (THLB) is approximately 46 % Douglas-fir leading and 30% Hemlock leading.⁵

Figure 2. Leading Species



⁴ Vegetation Resources Inventory For the Powell River Community Forest, Final Report, Ecora, Resource group Ltd., December 2014

⁵ Powell River Community Forest Timber Supply Analysis, In Support of Management Plan, Ecora Engineering and Resource Group Ltd., October, 2015

2.4 Non-Timber Values

The management of crown forest resources requires that a number of non-timber values be considered and fully integrated into any timber harvesting related plans and activities. The PRCF is an area which is blessed with an abundance of non-timber values such as water quality, outdoor recreation values, fisheries values, wildlife, etc. During a brief field visit to the community forest, the importance of some of these non-timber values was witnessed first-hand. Given the obvious importance of these values it is critical to fully understand how timber harvesting operations can impact these values and appropriately account for this in the timber supply review process and AAC determination for the community forest. The following is a very brief description of some key non-timber values which exist in the PRCF and which must be managed and maintained.

2.4.1 Recreation

The community forest area contains several popular recreation resources including trails and waterbodies. Extensive existing road networks provide access to the community forest, facilitating use of the area by local and non-local residents for a range of year-round recreation activities.

The Ministry of Forests undertook a full recreation inventory of the Sunshine Coast TSA in the mid-1990's. Subsequent work included inventory and assessments of the recreation potential for the Haslam Lang Integrated Watershed Management Plan. Other resources include recreation trail maps prepared by local recreation user groups and Powell River Tourism.

During my field visit, I witnessed significant recreation use of the CFA and I also viewed a sample of some of the trails and facilities created by the local recreation groups. I was informed that the PRCF has a very good working relationship with local recreation groups and that maintaining this relationship was an important objective with respect to future management activities including the determination of new allowable annual cut.

2.4.2 Community Watershed

The PRCF is situated within the Haslam Lang Community Watershed and other smaller watersheds with active water licences and high fisheries values. Maintaining water quality is of paramount importance for domestic water intakes and supporting high value fish resources. Through my discussions with the Manager of the PRCF and some of the directors, it is apparent that the PRCF works in collaboration with local water purveyors (Powell River District and Brew Bay Water Users Association) in order to maintain high water quality and ensure that all activities conducted within the watershed meet this goal. This is evidenced through good forest

management practices implemented within the community forest, and documented in the watershed and water quality assessments that the PRCF has undertaken over the past 5 years and the Forest Practices Board Audit of 2012.

2.4.3 Fisheries

Fish and fish habitat are both highly significant resource attributes of the PRCF. A Haslam Lake and Lang Creek fish habitat inventory was prepared as a technical report for the Haslam Lake and Lang Creek Integrated Watershed Management Plan. There are 19 tributaries to Haslam Lake and Lang Creek that contain habitat critical to salmonids. Cutthroat trout are found throughout these streams, including upper reaches. In addition, there is a fish hatchery, spawning channel and a holding/counting/sorting facility located on the lower reaches of Lang Creek.⁶ Harvesting activities and rate of cut within the PRCF are important considerations in order to maintain fish habitat and water quality for fish.

3 Updated Forest Inventory Related Information

Forest inventory information is a critical component of good forest management and determining a sustainable harvest rate for a management unit. Since commencement of operations, the PRCF has made significant efforts to improve forest inventory related information in order to better determine the characteristics of the existing growing stock and to refine the growth potential of future tree crops.

The three areas of forest inventory related information that PRCF has improved upon are as follows:

- (i) In 2014, the production of new vegetation resources inventory (VRI) as an upgrade from the existing 1991 VRI.
- (ii) Acquisition of LIDAR data in 2012 and aerial digital frame imagery in 2013.
- (iii) In 2014, updated Terrestrial Ecosystem Mapping was completed.

While the author is not a forest inventory expert or an ecologist, as a previous provincial Chief Forester I am fully aware of the uncertainties that arise in the timber supply review process when attempting to utilize forest inventory information that is outdated or suspect. The

⁶ Haslam Lake and Lang Creek Integrated Watershed Management Plan, Ministry of Forests and Ministry of Environment, October 1999

investments (i.e. as noted above) made by the PRCF greatly improves the reliability of key timber supply related information including tree heights and density (based on the information derived from the LIDAR data set), the leading species, polygon delineation, ecosystem classification and site productivity. This improved forest inventory information can give the PRCF Board of Directors confidence that the base case in the timber supply analysis is supported by up to date information derived using scientifically and technically sound methodology.

4 Timber Supply Analysis Completed by Ecora

I have reviewed the timber supply analysis completed by Ecora in their October 2015 Timber Supply Analysis report. The following is a summary of that review.

4.1 Methodology

In reviewing the considerations that lead to an AAC determination, it is important to remember that the AAC determination itself is not simply a calculation. Even though the timber supply analysis provided by Ecora is integral to those considerations, the AAC determination should be a synthesis of judgment and analysis in which numerous risks and uncertainties are weighed. Depending upon the outcome of these considerations, the AAC determination may or may not coincide with the base case forecast. Judgments that in part may be based on uncertain information are essentially qualitative in nature and, as such, are subject to an element of risk.

The timber supply methodology utilized by Ecora appears sound, logical and consistent with accepted timber supply analysis methodology. More specifically, the approach utilized to identify the timber harvesting land base (THLB) and the analysis units, along with the net down logic and methodology utilized, appears appropriate. The resulting THLB of 5,579 ha, occupying 78% of the community forest land base, appears consistent with the general operability of the community forest that I observed during my field visit in September 2015. In addition, the site indices utilized, volumes per hectare, age class and species distribution all appear consistent with personal observations made during my field visit.

4.2 The Base Case

For most AAC determinations, a timber supply analysis is carried out using data and information from three categories: land base inventory, timber growth and yield, and management practices. Using this set of data and a computer model, a series of timber supply forecasts can

be produced to reflect different starting harvest levels, rates of decline or increase and potential trade-offs between short- and long-term harvest levels.

From a range of possible forecasts, one is chosen in which an attempt is made to avoid both excessive changes from decade to decade and significant timber shortages in the future, while ensuring the long-term productivity of forest lands. This is known as the “base case” forecast and forms the basis for comparison when assessing the effects of uncertainty on timber supply. The base case is designed to reflect current management practices.

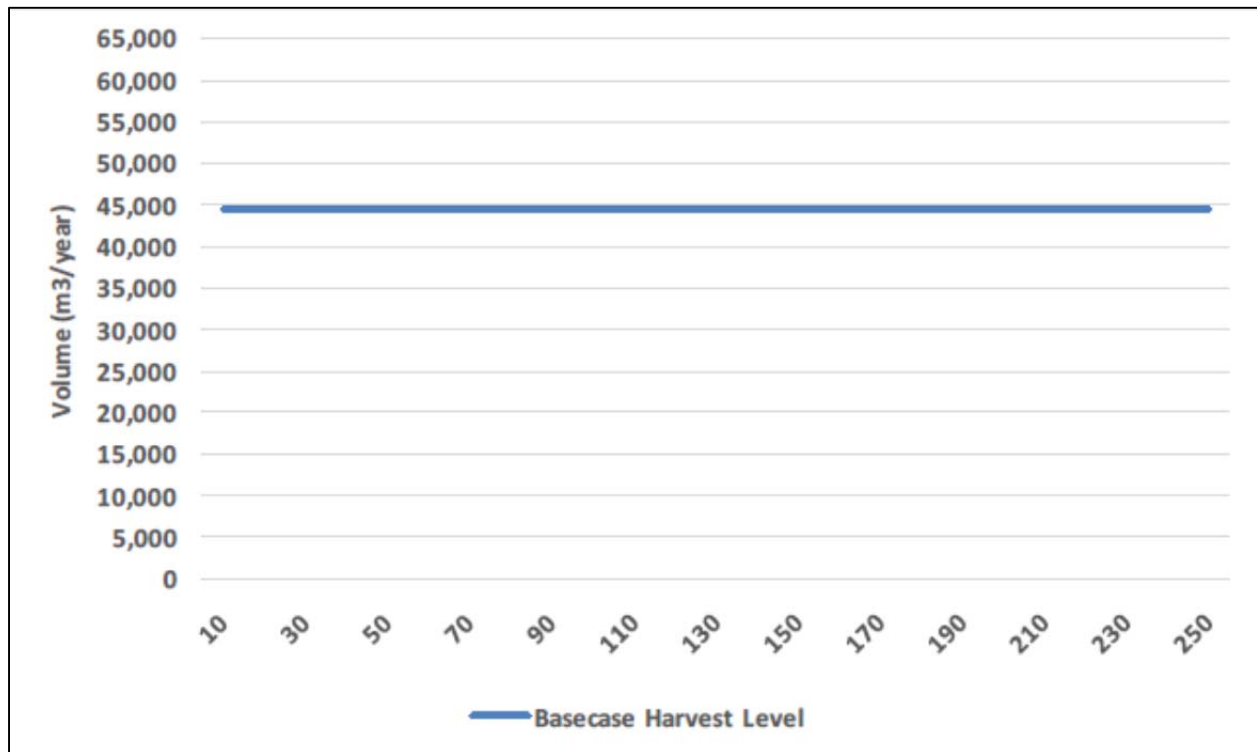
Because it represents only one in a number of theoretical forecasts, and because it incorporates information about which there may be some uncertainty, the base case forecast is not an AAC recommendation. Rather, it is one possible forecast of timber supply, whose validity – as with all the other forecasts provided – depends on the validity of the data and assumptions incorporated into the computer model used to generate it.

The base case timber supply flow includes:

- A THLB of 5,579 ha as described in Section 3.1 “Netdown” of the Timber Supply Analysis;
- Non-recoverable losses (NRLs) of 317 m³ per year as described in Section 7.4;
- Resource Management Zones (RMZs) including: community watersheds, integrated RMZs, seral landscape level biodiversity targets, and visually sensitive areas;
- Standard yield curves using TIPSY for managed stands and VDYP for natural stands; and
- A non-declining harvest flow and a sustainable long term growing stock.

This section presents the results of the base case timber supply analysis. Harvest levels were found to the nearest 500 m³ per year and are shown as net after non-recoverable losses (NRLs). The base case timber supply forecast completed by Ecora demonstrates that the base case can sustain a harvest level of 44,500 m³ per year.

Figure 3 Base Case Harvest Forecast



4.3 Sensitivity Analysis

As discussed above, the base case uses a specific set of available data and forest management assumptions that attempts to capture current forest composition and management. Sensitivity analysis is used to examine the effect on timber supply of uncertain information on known adjustments. These adjustments are made on the basis of informed judgment using currently available information about forest management, and that information may well have changed since the original information was assembled.

Therefore, much of what follows in the considerations outlined below is an examination of the degree to which all the assumptions made in generating the base case forecast are realistic and current, and the degree to which resulting predictions of timber supply must be adjusted to more properly reflect the current and foreseeable situation.

4.3.1 Reduced Natural Volume

Much of the PRCF has been disturbed in the recent past (i.e. the last 100 years) by either logging or fire. In general, the site productivity of the community forest is quite high (i.e.

average site index of approximately 29 m⁷) so the regenerated forest from the recent disturbances have significant volumes as indicated by the latest VRI work completed by Ecora. However, despite utilizing up to date site index mapping (TEM) and recently acquired Lidar information for tree heights and stand density information, there is still an element of risk in estimating natural stand volumes. As a result, Ecora was asked to test the sensitivity of the timber supply to a 20% reduction in inventory volumes for natural stands. The results of this sensitivity analysis illustrate a 10% (i.e. 4,500 m³per year) downward pressure on the base case harvest forecast. While there is some inherent risk associated with the estimate of natural stand volumes, I believe a 10% downward pressure is overly conservative; however some lesser amount in the range of 5% would be appropriate.

4.3.2 Recreation Trails Partial Harvest

In the base case analysis, all recreational trails were retained in the THLB as there are currently no legal obligations to exclude them. However, as mentioned previously in this report, the PRCF is a high-use recreational area which could have implications for harvesting opportunities.

A sensitivity analysis was completed to test the timber supply impact of applying a 30 m buffer to the existing trails (15 m on either side) and only allowing partial harvesting to occur in this area. This was modeled by allowing a maximum of 50% of the trail zone under rotation age (50 years). The Ecora analysis demonstrated that applying this restriction had no impact on the base case harvest level. While the results of this sensitivity test appears reasonable, I believe that given the number of existing trails and their high level of use, there will ultimately be some minor downward pressure on timber supply. A downward pressure of approximately 1% on the base case forecast would seem prudent.

4.3.3 Increased Minimum Harvest Age

The minimum harvest age (MHA) in the base case is set at the age that the harvestable volume exceeds 300 m³ per hectare. However, current harvesting practice on the CFA targets stands with much higher stand volumes (i.e. generally greater than 750 m³ per hectare). As a result, alternative MHAs with higher minimum volumes of 400 m³per ha and 500 m³per ha were tested in the timber supply model. The sensitivity analysis showed that there is a minor timber supply impact as the MHA 400 scenario is reduced by 1% to 44,000 m³per year and the MHA 500 scenario is reduced by 2% to 43,500 m³per year as compared to the base case. As stated by Ecora in their timber supply analysis, this result makes sense as the average harvest volume per

⁷ Powell River Community Forest Timber Supply Analysis, In Support of Management Plan, Ecora Engineering and Resource Group Ltd., October, 2015

hectare in the base case is above both these thresholds at 625 m³per ha. It is my belief that accounting for a 2% downward pressure on the base case forecast would be appropriate.

4.3.4 No Genetic Gains Applied to Future Managed Stands

The management activities related to tree improvement have been ongoing by the province for over half a century. Great strides have been made in the growth characteristics of many commercial tree species native to British Columbia including those species that are ecologically appropriate for reforesting harvested areas within the PRCF. While the enhanced growth potential of new stock is based on sound science and extensive field testing, there is still some uncertainty with respect to volume that will ultimately be achieved. As a result, Ecora completed a sensitivity analysis to test the timber supply impact of using alternative managed stand genetic gain assumptions. Ecora developed new managed yield curves for this sensitivity with no genetic gain assumptions applied in managed stands. This resulted in a reduction of the base case harvest level by 6% from 44,500 m³per year to 42,000 m³per year. While some uncertainty exists surrounding the estimated genetic gains, I believe that a 6% reduction is overly pessimistic and a 1-2% reduction to the base case forecast would be more appropriate.

4.3.5 Remove Proposed OGMA from the THLB

Ecora tested the timber supply impact of removing 204 ha of proposed Old Growth Management Areas (OGMAs) from the THLB. These OGMA removals are assumed to fulfill the old growth retention requirements, and therefore the modeled aspatial seral requirements are removed in this sensitivity test. The results indicate that there is no harvest level change in this scenario as the base case harvest level can support the removal of additional OGMA areas should this action be taken by the FLNRO. Given these results, I would not recommend making any downward adjustments to the base case harvest forecast for this potential eventuality.

4.3.6 Alter Managed Productivity Rates

As mentioned previously in this report, the PRCF acquired improved Terrestrial Ecosystem Mapping (TEM). The TEM is utilized to generate site index (SI) estimates that relate site productivity to biogeoclimatic ecosystem classification and leading species (SIBEC). This new TEM information is incorporated into the managed stand yield curves used in the base case harvest forecast. While this TEM information and the related site index information generated by Ecora has not been reviewed by FLNRO experts, it appears to the author that Ecora followed established provincial procedures completing the new TEM work and utilized staff that has expertise in this field.

Notwithstanding the above information, the PRFC believed it was important to test the sensitivity of the timber supply to altering managed stand productivity estimates. As a result, Ecora was asked to utilize managed stand yield curves in TIPSY with site index estimates +/- 2 meters of those used in the base case. Increasing the managed SI by 2m was shown to increase the harvest level by 8% from the base case to 48,000 m³ per year. Decreasing the managed SI by 2m decreases the harvest level by 8% from the base case to 41,000 m³ per year.

There a number of scientists provincially who have worked in the field of site productivity for many years. It is my understanding that many of these scientists believe that historic estimates of site productivity have underestimated the growth potential of much of our harvestable crown provincial forests. In many of the management units across the province, the Chief Forester has accounted for revised site productivity estimates in the AAC determination process and I believe it is appropriate to do so in the timber supply analysis for the PRFC as well. The question is whether or not there is uncertainty and or risk associated with the site productivity estimates utilized in the base case harvest forecast. Based on the precautionary principal, and the yet unrealized growth gains from increased site productivity estimates, I believe it is prudent not to fully incorporate all the increased growth associated with revised TEM information and SI estimates. Therefore, I believe a 2% (890 m³ per year) downward pressure on the base case is appropriate.

4.3.7 Implement ECA Requirement by Sub-Basin

As described earlier in this report, water quality and quantity are important management objectives within the PRFC. As a result, the community forest has spent considerable effort in completing water quality assessments and watershed assessments to determine the effectiveness of their forest management activities in meeting water related objectives. The hydrology expert (i.e. Brian Carson, P.Geo) who completed the most recent watershed assessment in 2015 concluded that:

“The overall hydrological state of the Haslam Lang Community watershed is good. The relatively stable terrain, the storage capacity of the lakes within the system, the high productivity of the forest lands, the cooperative nature of most recreation users and the diverse managers’ commitment to the original recommendations of the previous CWAPs and the intent of the original IWMP all combine to minimize any possible negative impact on water quality, quantity and timing of flows.

Forest harvesting directed primarily to meet permitted thresholds of ECA for the whole watershed or even specific subcatchments has limited value in directing enlightened management. At present none of the major subcatchments within the Haslam Lang Watershed are near to thresholds of concern that has been defined as 30% in previous

CWAP and FSPs). The overall watershed ECA is also low but even so, this calculated value has little significance to watershed health.

The present forest managers have correctly focused their attention on maintaining the watershed's road network with sustained water quality as a primary objective. "⁸

Given the importance of meeting water related objectives, Ecora was asked to complete a sensitivity analysis that tested the timber supply after applying a maximum Equivalent Clearcut Area (ECA) requirement of 30% to each sub-basin in the CFA. The results indicate that once applied, these additional requirements decrease the harvest level to 44,000 m³ per year from the base case harvest level of 44,500 m³ per year. This is a relatively minor downward pressure for an eventuality that has little risk of occurring. In addition, the community forest managers are focusing their attention on other more important water quality measures associated with the watershed's road network. Therefore, it would be my recommendation not to further restrict the timber supply due to water quantity and quality concerns but rather continue a keen focus on management activities related to water values.

4.3.8 4.3.8 Combined Scenario

After reviewing the sensitivity analysis completed by Ecora in their timber supply analysis report, the following is the author's conclusions regarding the implications of combining the downward pressures from the sensitivity analysis as described above:

- Natural stand volume reduced by 5% (2,225 m³ per year)
- Recreation trails partial harvest 1% (445 m³ per year)
- Increased minimum harvest age 2% (890 m³ per year)
- Genetic gains applied to future managed stands 2% (890 m³ per year)
- Alter managed productivity estimates 2% (890 m³ per year)

These suggested downward pressures result in a 12% (or approximately 5,340 m³ per year) adjustment from the base case harvest level of 44,500 m³ per year to 39,160 m³ per year.

⁸ Haslam Lang Community Watershed, Coastal Watershed Assessment Procedure (CWAP) 2015 Update, Carson Land Resources Management Ltd.

5 Conclusions

The following are the conclusions of the author regarding aspects of timber supply associated with the PRCF:

1. The PRCF is located in some of the most productive forest sites in coastal British Columbia and as a result is capable of growing high quality fibre in a reasonable time horizon.
2. Key values associated with water quality/quantity and outdoor recreation (i.e. trail use) need to be carefully managed and fully accounted for in a new AAC determination.
3. The timber supply analysis completed by Ecora, along with the supporting inventory related work, has been completed to a high standard.
4. Based on the limited field visit completed by the author, along with the review of relevant documents, I believe the community forest is being well managed and has a high degree of community support/social license.
5. The initial/existing AAC (i.e. 25,000 m³ per year) of the CFA is clearly conservative, however the new AAC needs to be set at a level that ensures community support is maintained.

6 AAC Considerations

In reviewing the considerations that lead to the AAC determination, it is important to remember that the AAC determination itself is not simply a calculation. Even though the timber supply analysis provided by Ecora is integral to those considerations, the AAC ultimately determined by the Board of Directors of the PRCF will be a synthesis of judgment and analysis in which numerous risks and uncertainties are weighed. Depending upon the outcome of these considerations, the AAC determination may or may not coincide with the base case forecast.

As a result of my review of the timber supply analysis and supporting documents/reports, I believe that the base case forecast at 44,500 m³ per year is somewhat optimistic. The accounting for the risks and uncertainties as described in Section 4.3.8 above, could lead one to a potential AAC determination of 39,160 m³ per year. This would represent a 57% increase over the current AAC of 25,000 m³ per year. I believe that a new AAC at this level would be relatively easy to technically defend utilizing a description of how the various risks and uncertainties have been factored into the AAC determination as informed by the base case forecast.

The PRCF has had a very successful beginning, and is currently receiving a high level of public support. There is a potential risk that a new AAC that is 57% higher than the current AAC may cause some negative public reaction. Should the Board of Directors not want to risk negatively impacting the successful foundation they have developed for the community forest, they may want to exercise additional caution and set the AAC at an even lower level of approximately 35,000 m³ per year (i.e. 40% increase over the existing AAC) for the next 5 to 10 years. There are some obvious economic, ecological and social benefits to this approach including the following: facilitate harvesting stands at higher volumes per hectare than modelled in the timber supply analysis completed by Ecora; letting stands grow longer should result in an increase in harvested piece size which generally translates in higher economic returns; retaining a larger component of mature timber on the land base over time could have positive ecological implications ; and a lower harvest level could reduce the potential of conflicts associated with non-timber values such as water quality/quantity and outdoor recreation use.

Exercising the precautionary principle further, and allowing forest management activities on the community forest to further demonstrate performance even at an increased AAC level, could facilitate further AAC increases in the years ahead. That being said, I believe the Board of Directors should feel comfortable that their community forest can be sustainably managed at an AAC level somewhere between 35,000 m³ per year and 40,000 m³ per year.

7 Public Involvement Recommendations

One of the goals of the provincial community forest program is to promote community involvement and participation.⁹ From my discussions with those associated with the community forest there has been a climate of open dialogue and responsiveness to concerns developed since its inception. As a result, I believe the PRCF should build on this foundation of transparency and openness and seek input from the local public on any new proposed level of AAC. The following are some potential measures that the Board of Directors could consider when developing a public consultation strategy:

1. Once the Board of Directors has decided on a proposed new AAC, they may wish to consider briefing the municipal council on their recommendation along with a proposed public consultation strategy before submitting a new AAC to the ministry for approval by the District Manager.
2. Consider preparing a brief communication update explaining the new proposed AAC, including the technical aspects supporting the new proposed level. This document could

⁹ <https://www.for.gov.bc.ca/hth/timber-tenures/community/goals.htm>

be posted on the PRCF website along with the Ecora timber supply analysis and supporting inventory documents. A date requesting public comments should be established.

3. Given that outdoor recreation (i.e. trail development and use) is a key value to be managed for, the BOD may wish to engage directly with the Powell River Outdoor Recreation Users Group (ORUG). Obtaining a letter of support from this group could be advantageous in the AAC approval process with FLNRO.
4. A number of reports and assessments, including an audit from the Forest Practices Board, have documented the good performance of the PRCF with respect to managing for water values. The BOD should consider developing key messages communicating their commitment and actions relative to the management of water quality and quantity objectives.
5. A public open house could be held where the timber supply analysis could be explained and questions from the audience could be answered.
6. After the public review activities have been completed the results and input should be summarized and analyzed/considered by the Board of Directors prior to finalizing their AAC determination.
7. The community forest manager should contact the Ministry to determine the exact process and requirements for submitting a new AAC for approval by the District Manager.