December 19, 2019

Garry Merkel, RPF & Al Gorley, RPF
Old Growth Strategic Review
Submitted by email to oldgrowth@gov.bc.ca

re: Written Submission on the Old Growth Strategic Review

Dear Sirs;

Before I get into my thoughts on Old Growth or Old Forests in BC, let me give you some background of who I am and the world I come from. I am a Registered Professional Forester (1994) who has had the pleasure of working across many locations in the Interior, and now living and working on the Coast. I have worked in Forest Planning since the early 90s.

I began my career back in the early 80's working and studying mostly in the east Kootenays focusing on the Mountain Pine Beetle outbreak. I moved to Prince George in 1991 working for Rustad Brothers and for Industrial Forestry Service. In 1993 I started with Slocan Forest Products in Vanderhoof where my previous experiences in Mountain Pine Beetle Management came in handy. By 1997 the Mountain Pine Beetle population exploded in Tweedsmuir Park and spread north through the Vanderhoof Forest District. In 2000 I accepted a position up in Fort Nelson with Slocan working in the amazingly robust mixedwood forests supplying logs for plywood, OSB and lumber production. Following a few years in Fort Nelson I relocated back down to the Prince George Timber Supply Area (TSA) accepting a planning position with the Sinclar Group. I worked out of the Central interior until 2016 concentrating on operational and strategic planning. I survived the Mountain Pine Beetle salvage crisis, and managed to get my feet wet with the Spruce Beetle outbreak in Mackenzie and Prince George Forest Districts. In the summer of 2016, I made the move down to the Coast, now working for one of the Major Coastal Licensees.

In this written submission I have separated out my thoughts into logical discussion topics…well logical to me anyways. I will focus my comments to the Coastal Region of BC but will on occasion bring in some learnings from the Interior.

OLD GROWTH MANAGEMENT AREAS (OGMAs)

I have witnessed in the Central Interior that OGMAs can change over time due to natural events, such as Insects & Disease outbreaks as well as from large scale forest fires. Currently OGMA Orders in BC are defined as either Spatial, A-spatial, or a combination of the two. Given that OGMAs will change over time, it is beneficial to have some flexibility built into these legal Orders. The A-spatial approach to OGMAs is ideal in most areas of the province and is especially applicable to large area-based tenures such as Tree Farm Licences (TFL).

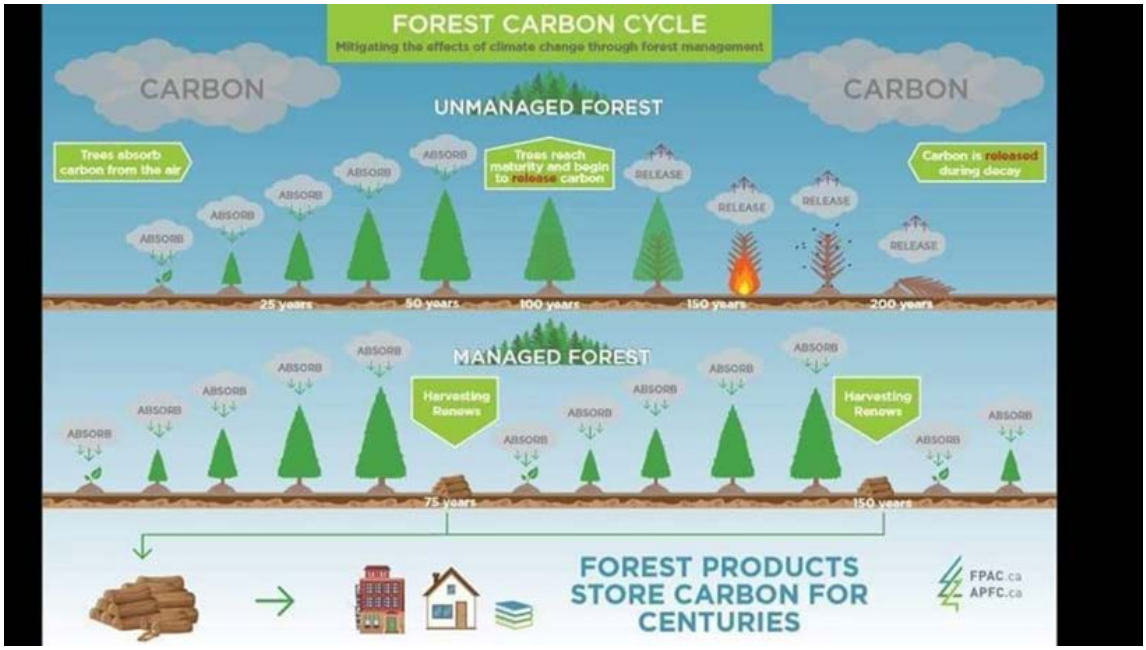
On the Coast, TFLs are generally near communities. One possible approach is to put in place an A-spatial Old Forest Order where OGMAs can be spatialized in short 10-year terms and managed by Area Based Licensees and BC Government with input from nearby communities. The parameters of each OGMA Order would need to be clearly spelled out and used as the foundation for OGMA location and design within Landscape Units or BEC zones. This will allow

for community input into the location of OGMAs as well as provide some flexibility and certainty to the working forest concept – I will comment on the working forest concept further down in this submission letter.

CLIMATE CHANGE RELATIVE TO OLD FORESTS

Although I am not an expert on Climate change and carbon emissions, I do understand the basics of the forest carbon cycle. In the first few years following disturbance, forests are generally carbon sources due to decomposition of residual fibre left on the site. As the planted trees grow there is a transition from being a carbon source to a carbon sink until they become Old Forests. Old Forests emit more CO2 into the atmosphere from decay, stand decomposition, and possibly wildfire as compared to managed second growth forests.

When trees are harvested, stored carbon in wood is not lost, rather the carbon is retained in the resulting wood products. Some carbon is left on site as residual material. Some of this remaining carbon is burned and released quickly into the atmosphere, while some of the carbon is temporarily stored on site until it decays and breakdowns releasing carbon slowly into the atmosphere. Stored carbon in wood will last as long as the wood product lasts; for instance, buildings constructed with wood may last many years as stored carbon. The picture below is a good representation of the differences between a managed and unmanaged forest with respect to carbon emissions. Diagram is courtesy of **FPAC –** ***Forest Products Association of Canada***.



Ultimately there is a balance between managing second growth forests as sinks and retaining Old Forests as sources. If we simply look at maximizing the amount of carbon retention within our forests, then a transition strategy from Old Forests to managed second growth forests is critical. On the Coast, Licensees have been transitioning the harvest profile from Old Growth to Second Growth for some time now. This transition needs to continue in order to fully transition the harvest to a second growth industry.

CERTAINTY IS NEEDED

Since the early 90s the Coastal Region has seen significant drop in Annual Allowable Cut due to ongoing reductions in the timber harvesting land base. These reductions are generally tied to various land base decisions over time. This is the Coastal Region's "Mountain Pine Beetle" which has resulted in a substantial erosion of the working forest.

The working forest is a concept that has been around for a while. To increase certainty for the Forest Industry and encourage investment in BC, the land base of the working forest needs to be defined and locked down. Implementation of a timber harvesting land base "no-net-loss" program that can be reviewed periodically. Within the working forest we need to grow and maximize fibre, encourage investment, sustain employment, and ensure that communities and the forest products industry remain viable. Certainty is what is needed on the Coast of BC as well as throughout the Interior.

SCIENCE OR ECONOMIC BASED POLICY DEVELOPMENT

Too often legislation and policy development are driven by political motivation, rather than science or economics. What ever the outcome of this Old Growth Review, the resulting direction or policy needs to be supported scientific data and facts. Below is a breakdown of some data related to Old Forests on the Coast of BC.

Layer	Approx. Hectares	Percent
Coastal Region of BC	15 Million	100%
Forested Land	8.4 Million	56% of total
Old Forest > 250 years	3.5 Million	42% of Forested
Timber Harvesting Land base	2.6 Million	31% of Forested
Non-Harvesting Land base	5.8 Million	69% of Forested

The numbers in the table above are based on some recent research. These are not absolute numbers, rather it is approximated hectares and percentages to illustrate the comparable magnitude of the current state of Old Forest on the Coast of BC.

An estimated 56% of the total area of the Coastal Region is forested, of that 42% of the forested area is > 250 years old. This Old Forest is split between the timber harvesting land base and the non-timber harvesting land base. The non-harvesting land base (69% of the forested land base) includes areas reserved from harvesting due to legislative restrictions and/or physical & economic constraints.

As I look at these numbers it seems like there is already significant no-harvest areas set aside on the Coast. I do not see the need to restrict Old Forest or second growth harvesting any further. For the company I work for, Old Forests make up a large proportion of the timber harvesting land base. A moratorium on Old Growth harvesting will reduce the Annual Allowable Harvest by an estimated 40-50% with potentially a similar proportional loss in employment and processing facilities. This is significant, and it begs the question, "*how much Old Forest needs to be retained*

on the land base?" To answer this question, we need to also consider the social and economic implications of any additional Old Forest reserves on the Coast.

Below are some figures quoted in the Price Waterhouse Coopers Report entitled "*British Columbia's Forest Industry and the B.C. Economy in 2016*". *https://www.cofi.org/economic-study-confirms-forest-industry-cornertone-b-c-s-economy/*

The numbers below are based on 2016 data.

- *In BC, the Forest Industry supports close to 140,000 total jobs (direct, indirect, and induced) in the province with a total labour income of $8.56 Billion, as well as generating $33 Billion in Outputs and $12.9 Billion in Gross Domestic Product.*
- *In BC, $4.1 Billion in Government Revenue.*
- *1 in 17 jobs in the province is created due to the Forest Industry Operating Activities.*
- *1 in 4 jobs in manufacturing comes from the Forest Industry.*
- *In BC, the Forest Industry invested $650 Million in new capital projects.*

Any further reductions in Old Growth harvesting on the Coast could have a significant impact to forest dependent communities as well as reductions to Government revenue.

PUBLIC EDUCATION ON FORESTRY IN GENERAL

I don't think that Government and Industry has a good enough job in educating the general public on Forestry and what it means to the province as well as local communities. There is a lot of conflicting information out on websites and in social media. I believe strongly that there needs to be a public information partnership between Government, Industry and Associations The messaging needs to be consistent, factual, reliable, and timely.

This Old Growth Strategic Review is a great example on how information is mis-represented leaving the general public wondering what the truth is. There are polarizing views between the Forest Industry and Special Interest Groups as to how much Old Forest remain and where it is located. An interactive map along with tables of data would have helped inform all respondents. Also, what is helpful is to paint the picture of what the economic impact is to a moratorium on harvesting Old Forest.

There is a general distrust of Forest Companies who operate on the Coast of BC. For any information to be accepted it is important that the messaging comes either from Government or perhaps an Association Partner like the Association of BC Forest Professionals.

LASTLY…DEFINING OLD FORESTS

I thought it would be good for you to read my take on defining Old Forest.

On the Coast the concept of Old Forests is emotionally charged for most people. As such there are many perceptions on the definition of Old Forests. Recently I was out in the forests surrounding my neighborhood and ran into someone I knew. This person went on about how wonderful these Old Growth trees are. I told her that these Douglas Fir trees are no more than

80 years old based on our companies records of past harvesting around Powell River. But to her…this was Old Forest. Everyone will have a different take on what Old Forest means to them.

Typically, Old Forest has been considered stands > 250 years old on the Coast and >120-140 in the Interior. Old Forests cannot be defined strictly by age. There are other stand level characteristics that can further help illustrate what is an Old Forest.

My hierarchy of what is an Old Forests is as follows:

Old Forest means the following to me:

1. A stand of trees > 250 years; or,
2. A stand of trees < 250 years that exhibits old growth characteristics such as, standing snags, rotting logs, patchy understory, natural canopy gaps, and scattered veteran trees within the stand; or,
3. A stand of trees containing climax species based on the ecological life cycle of that stand.

Here are some key takeaways for you from this submission letter:

- Consider an alternative approach to the location and design of OGMAs. A-spatial management of OGMAs is one potential solution. OGMAs could be temporary (10 yrs?) and revisited when required.
- The forest industry needs certainty on the land base. The concept of the working forest, provides certainty for the Forest Industry, provides meaningful and long-lasting employment, as well as promotes sustainable management of our forests.
- Public education relative to the forest industry is desperately needed. Government, with Industry and association partners, will need to work together for a consistent messaging.
- A healthy managed forest has a positive influence on the reduction of carbon emissions.
- Given that a large percentage (69%) of the forested area on the Coast is the non-harvesting land base, the question I have is, "*how much more erosion of the timber harvesting land base can take place before there is no longer viable opportunities for a healthy Forest Industry to exist*"?

In conclusion, a healthy Forest Industry is essential in maintaining community stability on the Coast. Any further erosion of the timber harvesting land base through a moratorium on Old Forest harvesting will have a detrimental impact on these communities. There is a lot at stake in setting policy that will undermine one of the keystone industries in BC. Allow Forest Licensees to complete the transition to a second growth industry and instill the concept of the Working Forest.

If you have any questions regarding this submission letter feel free to contact me at 604-485-3113.

Sincerely,

Darwyn Koch, RPF
Powell River, BC