Victoria, BC Jan. 20, 2020

Old Growth Strategic Review Panel oldgrowthbc@gov.bc.ca

I am writing to contribute to your panel's review of old growth forests and their management in British Columbia.

1. What "old growth" forests mean to me.

I view old growth forests as ones that have never been logged before, which represent an ecological treasure and a non-renewable resource since the trees can be hundreds if not thousands of years old and must be considered irreplaceable. There are a number of values or services that they provide that are important to me: biodiversity, habitat for wildlife, spiritual and cultural uses for First Nations peoples, regulation of water flow and storage, tourism and recreation, and carbon sequestration to mitigate climate change. The latter value is one that needs to be examined in more detail.

From a climate science perspective, the publication of the UN IPCC 1.5 Report in Oct 2018 [1] warns that meeting a 1.5 degree C global warming target will require deep emissions reductions (CO2 levels need to fall to 45% of 2010 levels by 2030, and reaching 'net zero' around 2050), in order to avoid extreme weather, rising sea levels and loss of many ecosystems among other impacts. This "climate emergency" will require major changes to "business as usual" in the next 10 years. This has implications for the role of old growth forests to sequester carbon and to capture additional CO2 in the years to come. It seems clear that old growth forests are an incredible asset, which need to be preserved at all cost, since much of the carbon stored will be lost if these trees are logged.

From a political perspective, climate change has become a huge issue. In the past year, we have seen GretaThunberg leading school children in climate strikes to try to convince polititians of the importance of dealing with the science behind this issue for her generation, who will be left with a little hope of a future if warming continues. We have had thousands of people marching in the streets in support of dealing with climate change for their children and grandchildren. In the last federal election, over two thirds of Canadians voted for parties that pledged to deal with climate change. The number of citizens of BC that care about this issue is likely higher. This represents a liability for the BC government, who need to deal with both old-growth logging and their support and encouragement of a high GHG emissions LNG industry in BC.

2. My perspective on how "old growth" forests are managed now

My perspective is that "old growth" forests are being logged as fast as the rules and legislation permit in order to generate as large a profit for the logging companies involved as possible, with little consideration of the future of "old growth" forests, including carbon storage and sequestration for the planet as a whole and what happens when this resource runs out (viewed as an effectively non-renewable resource).

My perspective is based on sources such as news releases, newspaper articles and personal experience. My first reference is an article from the Oct 20, 2019 Victoria Times-Colonist, a respected widely-circulated city newspaper with clear editorial guidelines, entitled "Why is a BC Government Agency violating old-growth logging rules" [2]. This gives the impression that BC Timber Sales and the Ministry of Forestry are working to circumvent the rules and regulations for old-growth logging. My second point of reference was a campaigner from the Ancient Forest Alliance coming to my door to sell me one their

2020 calendars, which showed a picture of a giant tree that had just been cut down in the Nahmint Valley. This tree had been featured on the front of their 2019 calendar and was one of the giant trees that the Alliance was asking the BC Government to protect from cutting. This again gives the impression that these agencies are out of control and acting in a vindictive manner without regard to what BC citizens are asking them to do. This is akin to the cutting down of the Golden Spruce on Haida Gwai by a mentally deranged person [3]. Having visited this site on Haida Gwai and talked to the First Nations people there, it is clear that they were angered by this senseless act of cutting down a tree that they considered sacred.

3. How do you think "old growth" could be managed more effectively in the future

a. Declare a Moratorium on "Old Growth" Logging on Vancouver Island.

Ask the BC Government to implement a moratorium on "old growth" logging on Vancouver Island. The government might follow some of the guidelines used in the Great Bear Rainforest agreement to implement such a moratorium. Funding for such a program might come from the proposed increases in the BC Carbon Tax (2019: \$35 -> \$40/tonne, 2020: \$40 -> \$45/tonne, 2021: \$45 -> \$50/tonne) or alternatively from government funds derived from LNG industry profits.

b. Set up a market-based carbon trading scheme such as "Cap and Trade",

where industries that reduce or store carbon receive carbon credits (typically forestry and agriculture) and industries that produce increased carbon emissions are required to pay a pollution fee or purchase carbon credits from low emissions enterprises to continue operations (typically oil and gas industries, manufacturing, transportation, etc). The carbon emissions cap could be reduced over time by the government; for instance, to reduce emissions from 100% to 0% by 2050 would require a 3.3% Cap reduction per year (100%/30 yrs).

Such a scheme could be implemented by the BC Government on its own or in association with other jurisdictions. For instance, the federal Minister for Environment and Climate Change Canada (ECCC), Jonathon Wilkinson, has announced such a carbon-trading scheme for Manitoba, Ontario and New Brunswick to be implemented later this year, based on an Output Based Pricing System (OBPS).

I think that by not logging old-growth forests the carbon not lost could provide an offset for Greenhouse gases (GHGs) generated by many other high GHG emission industries; for instance, the building of the new LNG plant in Kitimat coupled with expanding natural gas well drilling and associated operations such as fracking to supply natural gas to this plant for export. The BC Government could solve two of its problems heading into the next election by adopting such a scheme: stopping old growth logging and using it to offset the carbon from LNG operations.

c. Community-based Worker Co-ops for Forestry.

Another example of changing management of forests would be to have community-based worker coops responsible for local forests in an area. This might have value in the prevention of forest fires by
removing readily combustible materials in the interface between forests and populated areas, the
planting of trees in logged areas (funding promised in Trudeau's election campaign), and changes in
silviculture such as stopping glyphosate spraying of deciduous succession tree species which block rapid
fire spread. Changing from "slash and burn" of logging residual waste to the creation of a "wood chips
from waste" industry would likely have a good market as many utilities for power generation and district
heating would value a zero carbon fuel as they reduce fossil fuel use. Provision of raw logs for export to
local people would to stimulate value-added local industries in BC. This might require offering blocks in

existing TFLs to community groups, which might require some restructuring but should be feasible in a limited way. Community-based co-ops could help to alleviate the current unemployment situation in the forestry industry in BC.

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Bio/Affiliations:

- Member of the Environmental Committee of the First Unitarian Church of Victoria.
- -Retired Professional Engineer (who supports a Professional Reliance model involving decisions made by Professional Foresters, Professional Engineers and Geoscientists, etc.) in natural resource management.
- -Former Employee of the National Research Council of Canada. Member of the Flight Research Laboratory Airborne Science program using aircraft to make airborne scientific measurements. Members of our group pioneered the airborne measurement of fluxes of water vapor, carbon dioxide and methane and participated in Project Boreas to ground truth satellite-based measurements of boreal forests using flux measurements from towers and aircraft [4]. Our group has recently been involved in the measurement of methane gas over areas of tar sands extraction in Alberta.

References:

- 1. https://me/sr15 UN Intergovernmental Panel on Climate Change, Special Report 1.5, Oct. 2018.
- 2. Victoria Times-Colonist, Oct. 20, 2019, "Why is a BC Government Agency violating old-growth logging rules?"
- 3. John Valliant, The Golden Spruce, W.W.Norton & Company, May 17, 2005, ISBN 978-0393058871
- 4. Desjardins, R. L., Worth, D. E., MacPherson, J. I., Bastian, M., and Srinivasan, R.: Flux measurements by the NRC Twin Otter atmospheric research aircraft: 1987–2011, Adv. Sci. Res., 13, 43–49, https://doi.org/10.5194/asr-13-43-2016, 2016.