I have been putting off writing to you because it is difficult to fit the scope of my thoughts and feelings into this kind of a letter. I wish that my words could be enough; that if I chose the right ones and placed them in the right order, logging would grind to an immediate halt in BC's remaining old growth forests.

The difficulty in writing a letter like this is closely related to the difficulty of being alive at this time in history that is sometimes called the sixth mass extinction event. I have spent some time in old growth forests. I know how my hands smell when they have been pressed into the deep moss. The destruction of these forests feels to me like a process of siphoning all of the magic and vitality out of the world.

It must be similar for those who have known coral reefs in their glory and then returned to find them bleached and empty. It is a very different kind of loss from mourning an individual whom you have loved. The scale is really too immense for our small bodies. It is more like the kind of obliteration that happens in modern warfare. I think that this is, in part, why so many of us have numbed ourselves to it.

I am carrying a prayer around with me: that in a generation or two, maybe even sooner, it will be unthinkable to clearcut a forest, scrape biomass from the ocean floor with a bottom trawler, or sacrifice clean water for oil. That we will be fully engaged, as genuinely decolonized democratic polities, in cultivating economies that are not structured around exploitation and abuse.

In case that happens, we need to make sure that there are enough old growth forests left so that the incredible diversity of species remaining there – the intelligent fungal networks, the lichens, the ferns, the mosses, the bird life, the insects, the fish, the mammals – can spread back out to cover this whole region again. I would like my descendants, four or five generations from now, to live here on the coast or in the mountains of the interior surrounded by vast forests full of giant trees, bird song, and abundant life.

I am sure you have already been told repeatedly, as you have been reading all of these letters, that we need our old growth forests intact in order to prevent catastrophic climate change. Protecting forests that store and draw down carbon is as important to our collective survival as curtailing greenhouse gas emissions. Clearcuts release enormous quantities of carbon into the atmosphere. Researchers have estimated that newly planted forests in our region take somewhere between 13 and 30 years to counterbalance the continuing emissions from decomposing organic matter and exposed soils on clearcuts.

¹ Wieting, Jens. *Clearcut Carbon: A Sierra Club BC report on the future of forests in British Columbia*. Sierra Club, December 2019. https://sierraclub.bc.ca/wp-content/uploads/2019-Clearcut-Carbon-report.pdf

² See Harmon, M.E., Ferrell, W.K., and Franklin, J.F. 1990. "Effects on carbon storage of conversion of old-growth forests to young forests.": *Science*. 247:699-702; Suchanek, T.H., Mooney, H.A., Franklin, J.F., Gucinski,

Further, contrary to logging industry claims, older and larger-diameter trees store more carbon than young trees.³ They really hit their carbon-sequestering stride in the second half of their lives.⁴ Moreover, old growth forests have a moderating effect on local temperature extremes.⁵

The single-age stands that are planted in the wake of industrial clearcuts are not forests. They are tree plantations. Not only are they exceptionally poor and degraded habitat;⁶ they are also incredibly vulnerable to pests and to fire.⁷ Climate change is going to bring us more pests and more fire. We desperately need to stop clearcutting entirely, so that the forests of this province – which provide a life-support system for the entire planet – can grow older, healthier, stronger, and more biologically diverse. If we wish to prevent Holocaust-scale climate destabilization, it seems that protecting existing older forests and allowing younger forests to grow old should be the only forestry policy on the table.

This does not have to mean fewer forestry jobs. On the contrary. Alongside the transition off of fossil fuels that we all know is necessary, the province could plan a careful and just transition off of industrially-scaled logging. Small forestry businesses and co-operatives could selectively log second-growth stands in a manner that improves the overall health of the forests. That is, they would not "high grade" the stands for their biggest and most valuable trees. Rather, they would remove trees in a manner that gradually improves the biodiversity and quality of timber available in each stand. Such forestry is far less capital-intensive and much more labour intensive than industrial logging. Supported by the right policies and subsidies at a provincial and federal level, regenerative forestry could increase employment in BC's forests.

If the profits from these smaller operations were going directly to the operators themselves (removing corporate shareholders and managers from the forestry food chain), and if Canada protected domestic lumber with appropriate trade policies, people should be able to make a good living from standing forests. Likewise, (as it seems that everyone has been

H., and Ustin, S.L. 2004. "Carbon Dynamics of an Old-growth Forest." *Ecosystems*. 7: 421-426; Pregitzer, K.S., and Euskirchen, E.S. 2004. "Carbon cycling and storage in world forests: biome patterns related to forest age." *Global Change Biology*. 10:2052-2077).

³ Lutz, James A. "Global importance of large-diameter trees," *Global Ecology and Biogeography*, May 8, 2018. https://onlinelibrary.wiley.com/doi/full/10.1111/geb.12747; Zhou, G. et al. 2006. "Old-Growth Forests Can Accumulate Carbon in Soils." *Science*. 314 (5804), 1417; Suchanek, T.H., Mooney, H.A., Franklin, J.F., Gucinski, H., and Ustin, S.L. 2004. "Carbon Dynamics of an Old-growth Forest." *Ecosystems*. 7: 421-426.

⁴ See Luyssaert, Sebastiaan et al. "Old Growth Forests as Carbon Sinks," *Nature*, 455, 2008, 213-15; Köhl M. et al., "The impact of tree age on biomass growth and carbon accumulation capacity: A retrospective analysis using tree ring data of three tropical tree species grown in natural forests of Suriname," *PLoS ONE* 12(8), 2017. https://doi.org/10.1371/journal.pone.0181187

⁵ Frey, Sarah J.K., et al. "Spatial models reveal the microclimatic buffering capacity of old-growth forests," Science Advances, Vol. 2, No. 4, April 2016. https://advances.sciencemag.org/content/2/4/e1501392

⁶ Storch, Felix et al. "Quantifying forest structural diversity based on large-scale inventory data: a new approach to support biodiversity monitoring," *Forest Ecosystems* 5, 34, 2018. https://forestecosyst.springeropen.com/articles/10.1186/s40663-018-0151-1

⁷ Thompson, Ian et al. *Forest Resilience, Biodiversity and Climate Change: A Synthesis of the Biodiversity/ Stability/ Resilience Relationship in Forest Ecosystems.* UNEP Convention on Biological Diversity, 2009.

saying for years, but not quite managing to put into practice) we could have thriving secondary industries making high quality, durable goods from the trees that are cut.

Such a forestry transition should unfold in accordance with Indigenous laws, and should be planned and implemented collaboratively with traditional knowledge holders and Indigenous nations. It should include the return of "crown" lands to Indigenous title holders. The process of regenerating the forests could be an exercise in meaningful restitution and reconciliation.

Thank you for taking the time to read this letter. I hope that you will do whatever is in your power to save what is left, and to make this a time and place where healing can begin.

Sincerely,

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