To: Mr. Garry Merkel & Mr. Al Gorley
Re: Old Growth Strategic Review

Dear Mr. Merkel and Mr. Gorley,

Thank you for reaching out to the public for alternate perspectives regarding Old Growth forest management. Groups like our local island conservancy, which are working to preserve the full range of natural systems that occur in BC, are gaining increasing membership because ecosystem protection and preservation is important to the public. We, too, believe it is time to update our Old Growth management strategies in response to evolving economic and climatic conditions not only in British Columbia, but worldwide. Above all, it is our opinion that **Old Growth forests should be protected, i.e., not harvested**, because they are an integral part of the mosaic of natural systems in BC and because maintenance of this diverse landscape is of multiform value to the citizens of the world. The benefit of leaving Old Growth stands unharvested is various and our opinion is founded in the following values: The Value of Increased Biodiversity (I), The Value of Increased Environmental Resilience (II), The Value of Old Growth's Carbon Accumulation (III), Alternative Economic Value (IV), and The Value of the Intrinsically Sublime (V). We discuss these values in greater detail here:

The Value of Old Growth Forests

I. BIODIVERSITY — Old Growth forests represent a rare ecosystem that can support an elaborate range of biodiversity. The Old Growth ecosystem is home to a vastly greater diversity of species than second-growth plantations, where many such species cannot survive. The biodiversity of Old Growth forests offers many natural services including the maintenance of ecosystems, protection of natural resources (see section on Resilience (II) below) and the preservation of a diverse set of biological entities. Some key points regarding the biodiversity of Old Growth forests, including carbon-rich Coastal Old Growth forests, are as follows:

1. Many species (e.g., invertebrates and marbled murrelets) are dependant on Old Growth coastal forests and would not exist without them.
2. Coastal Old Growth forests are not regenerated by large fires but rather have new recruits germinating in small gaps created by single trees falling, thus the forest includes a range of tree ages. As older trees senesce and fall, younger ones grow in their place to join the canopy.
3. The gaps in Old Growth canopies allow more sunlight to lower levels of the forest, providing more luxuriant understories with more plants and wildlife. (Second growth forests tend to have denser, closed canopies which block out light and reduce the diversity of understory growth.)
4. Old Growth forests are home to many more lichens, mosses, ferns, and fungi that live on tree bark and branches than younger, second-growth forests, thereby supporting more unique species than second-growth plantations.
5. Old Growth stands have more fallen and standing dead trees which provide food, moisture, and shelter for other plants and animals.

It is in all of our best interests to maintain high biodiversity as the range of mutual benefit that varying species provide each other is incalculably vast. Because of the complexity of this multi-aged and species-diverse ecosystem, these forests are strong and resilient.

II. RESILIENCE —Old Growth forests are particularly resilient to environmental changes because their genetic diversity provides a basis for adaptation and resilience to environmental stress and change (see Schaberg et. al. 2008). They also contribute to the resilience of surrounding forests. Old Growth trees reduce the spread of wildfire as they retain more moisture and regulate the climate within the forest while also shading the dead fallen trees and branches on the forest floor, keeping them damp and less likely to fuel a fire. Old Growth trees, through their water retention also reduce the threat of flooding. Furthermore, their roots contribute to the structural stability of hillsides, reducing the occurrence of landslides. Diverse and resilient habitats like Old Growth forests are self-sustaining, requiring little to no human intervention, and are an easy way to offset increasing atmospheric CO2 concentrations.

III. CARBON ACCUMULATION — Old Growth forests act as carbon sinks, accumulating and containing large quantities of carbon. They have performed this role for centuries and harvesting these trees will release the stored carbon, including soil carbon, into the atmosphere over the following decades and sometimes, centuries. Although it has been asserted that Old Growth trees can no longer absorb additional carbon gasses it has been found that Old Growth forests can continue to accumulate carbon. Therefore, harvesting Old Growth trees would rob us of their aid in reducing carbon gasses, while the impact of releasing the stored carbon that they have accumulated could be devastating to a global climate which is already approaching a state of crisis. (See Luyssaert et al. 2008). (Note: This crisis is evident in BC where winter warming has led to greater proliferation of the mountain pine beetle, which is rapidly destroying forests. [See NAFA 2008] Removing Old Growth forests is removing one of our greatest allies in fighting climate change.)

IV. ALTERNATIVE ECONOMIC VALUE — Research has shown that standing Old Growth forests can have greater economic value if they are protected and well maintained than if they are harvested. Old Growth forests provide value in tourism, recreation, and environmental sustainability (maintenance of clean water and biodiversity, carbon storage) — notably supporting other industries such as salmon fishing. (See Knowler & Dust 2008)

V. THE VALUE OF THE INTRINSICALLY SUBLIME — We would be remiss to leave unmentioned, the true nature of this quest. For in each and every soul, sits a tiny seed that to one day will grow old. And when we reach the deepest part of the forest green, we feel a truth that's beaming, amongst that which remains unseen. A tiny drop of wisdom amongst the mosses green, speaks worlds that lay within us, all from the evergreens.

I think that I shall never see
A poem lovely as a tree.
- Joyce Kilmer

Recommendations

i. REALIZE

1. Old Growth forests are Non-renewable — Requiring many centuries to grow, Old Growth trees are not replaceable, their complex biodiverse ecosystems cannot be achieved in any other way than by allowing them to exist.
2. There is a very small amount of Old Growth forests left.

3. Old Growth forests are working to protect us and the environment around us — By naturally existing they reduce the spread of wildfire, reduce flooding and landslides, and by being carbon sinks they take care of the larger picture of our changing climate. They are inherently attempting to help us keep environmental catastrophes at bay, e.g., as is the case with the mountain pine beetle.
4. The true Value of Old Growth forests outweighs our economic needs.

ii. RE-EVALUATE

1. It is time to evaluate out-dated mindsets — B.C. is one of the very last jurisdictions on earth that still supports the large-scale logging of 500-year-old trees. Is harvesting Old Growth forests all that necessary? Much of the industrialized world is already harvesting second-, third-, and fourth-growth forests and advances in wood engineering make second-growth timber a viable replacement for Old Growth wood. Research that is out-dated or possibly formulated specifically to support corporate interests needs to be questioned, disputed and replaced with the more up to date research.
2. Are we considering new information that we now know? — Our scientific knowledge base on the intricacies and importance of intact environments and the interconnectedness between ecosystems is vast. Are we choosing to ignore any current information for the sake of temporary economic structure? Are we ignoring climate change and carbon balances? By choosing to replace persistent, aged, carbon rich forests with juvenile plantations we are overlooking prominent current data.
3. It is time to use a wide lens to view all communities that are affected by Old Growth and forestry practices – On a broader scale, those who are affected by the logging of Old Growth forests are communities that value living forests for their educational capacities, environmental importance, cultural significance, artistic inspiration, and spiritual magnitude. We must also consider the value that Old Growth forests hold for our children, for the local inhabitants near the forested landscapes, for those who value their connection to the land, and for First Nations. All such affected communities must be consulted and involved when we propose to vastly change the land upon which they are connected. We must also continue to work with First Nations with regards to Indigenous stewardship and we must continue to reach out to each First Nation that has a unique view on what land stewardship is and how they want to go about it. (See, for example, the perspectives of the Nuu-chah-nulth Tribal Council and those of the Haida Gwaii).
4. It is time to evaluate out-dated general forestry practices — All ecosystems are interconnected. To ensure the health of our Old Growth forests, we need continuous review of all logging practices to ensure every practice genuinely observes the environmental impact it has and is adjusted to suit the entirety of interconnected landscapes. (Consider such practices and effects such as: logging aftermath, i.e., the ways in which logging roads disturb waterways & stream habitats, the effects of soil compaction, the introduction of disease/invasive species, and habitat fragmentation [See Sierra Forest Legacy 2008]; the lacking consistent use of variable retention that

is far less detrimental to the forest ecosystem than clearcutting, but is still not governmentally enforced nor practiced consistently by many companies [See Beese et. al. 2019]; and the failure to update and reduce Annual Allowable Cut [AAC] to sustainable levels for present day.)

iii. REDESIGN

1. Cease Old Growth timber harvesting in perpetuity — we no longer have the luxury of a gradual reduction of Old Growth harvesting because our excessive and unsustainable practices to-date have nearly rendered Old Growth forests extinct.
2. Implement a Carbon Stewardship plan — less disturbance-prone, carbon-rich Old Growth forests, such as coastal temperate rainforests, wet subalpine, and inland temperate rainforests have a good chance of being with us for ages to come. They need to be fully protected, along with a buffer zone of adjacent forests allowed to age and increase the carbon bank potential.
3. Utilize Old Growth forests for other sustainable economic initiatives — standing Old Growth forests can support sustainable economic opportunities such as tourism, education, and carbon-offset projects. Furthermore, they provide sites of social, cultural, recreational, historical, and spiritual significance. They naturally contribute to clean air, clean water, and biodiversity, which in turn has a positive influence on directly or indirectly reliant economic structures, e.g., salmon fishing.
4. Update forestry practices to include current understandings of their environmental impact alongside the overall environmental state of the planet — we must consider that we may be nearing a tipping point where we have caused our planet so much distress that it can no longer sustain our environment and, in turn, us. By realizing the current state of affairs as it is, re-evaluating forestry techniques that once served us but no longer do, and redesigning the techniques by which we interact with our Old Growth forests alongside the mosaic of interwoven natural systems, we can create an integrative approach that embodies a sustainable and innovative way of moving forward. Our Old Growth forests can contribute to the preservation of our planet as a whole.

To conclude, we greatly appreciate the formation of the two-person panel and the consideration of the thoughts of the British Columbia public who are so deeply affected by the decisions made in Old Growth management. We, above all, wish to make it known that we recommend **a complete moratorium on the harvesting of Old Growth trees** for the sakes of all creatures (including us) which are a part of the Old Growths' ecosystems. We assert that there is more to be gained in the preservation of these ancient giants than through their destruction.

Sincerely,

Helen Leaf Black
Darren Paterson
Erin O'Brien
Dan Baxter
(Residents of Pender Island, BC)