

From: [FLNR Old Growth BC FLNR:EX](#)
To: [Old Growth Strategic Review](#)
Subject: FW: Old Growth Strategic Review
Date: Monday, November 18, 2019 12:15:39 PM

From: Dianne Ramage <dramage@shaw.ca>
Sent: November 18, 2019 12:14 PM
To: FLNR Old Growth BC FLNR:EX <Oldgrowthbc@gov.bc.ca>
Subject: Old Growth Strategic Review

Dear Committee

Thank you for providing an opportunity for the public to provide comment and input into your report to the Minister of Forests, Lands, Natural Resource Operations and Rural Development for their Old Growth Strategic Review.

I understand that in this day of information and science & evidence based decisions that I need to make my comments and suggestions based on them; however, I can only direct and include others' research as I am just a citizen and do not have credible research of my own. I do have observations though, as I have spent a lot of time in old growth and young forest types in Canada and the USA and lived in many small resource based rural communities in BC.

Attached are research and science papers on the ecological values of intact, and preferably roadless, old growth forests. This includes the high altitude, alpine, Whitebark Pine ecosystems, temperate Douglas Fir or Sitka Spruce old growth forests, Western Redcedar of the coast and the BC interior wet belts, and even the Western Larch forests. All old growth forests- whatever biogeoclimatic zone and dominate trees species, are ecosystems. I note this review is for FLNR, not Environment or Climate Change, who are struggling to find harvestable fiber in BC from a grossly depleted inventory for a variety of reasons. A fly over of BC Online Cadaster satellite images of BC show forest harvest impacts (harvest, roads, landslides, forest for tomorrow – timber/fiber replanting), at the landscape and watershed levels. Fiber harvesting in BC is impacting many watersheds and ecosystems already, some positively and some negatively.

I'll be brief:

- Yes, BC and many, many community economies are dependent on timber and none timber forest products; however,
- Old growth forest can be many different ages depending on the biogeoclimatic zone, they do not all look like Cathedral Grove, in MacMillan Provincial Park, some look like the boreal muskeg forests surrounding Fort Nelson
- Many species of animals and plants are dependent on the attributes and ecosystems present in all types of old growth forests in BC
- Benefits of BC's old growth forests are not limited to residents and visitors of BC, ecosystem services and natural capital are global in impact and value
- Cutting of timber in the remaining old growth forests, that has taken 100's if not 1000's of

years to develop the structure and relationships between and among the flora and fauna, is not acceptable- it is destroying capital assets to fund operational expenses. You don't sell your house to fund your car insurance.

- Intact old growth has economic value: recreation, timber, non-timber forest products, fisheries, hunting, wildlife viewing, forest bathing, medicine, water,
- Intact old growth has ecosystem value: forests mean rainfall and water, fish, wildlife, wilderness, air quality, some atmospheric carbon capture, SARA and COSEWIC habitat, UN Convention on Biological Diversity - Aichi **Biodiversity Targets** and Canada's 2020 **Biodiversity Goals and Targets**
- Intact old growth has social and cultural value: Indigenous community and individual values, conservationists and environmentalists personal values
- Intact old growth is more than the sum of its parts or its ability to or not to sequester atmospheric carbon
- Intact old growth does not uptake GHG or atmospheric carbon the same as a young growing forest does; however, with the amount of replanting and regrowth scheduled in BC to meet fiber needs and climate changes target, it will more than offset the slower uptake of the old growth
- Variable retention is a forest harvest practice not an old growth conservation and landscape retention plan and does not achieve what is needed for fully functioning old growth and dependent species, Boreal Woodland Cariboo may be an example as may be some of the other animals 1,807 at risk in BC, including 278 facing extinction

- New research is needed, and indeed is underway in Washington and Alaska on the soil microbiome of old growth forests, the fungal-bacterial diversity and microbiome complexity which research indicates predict ecosystem functioning and new questions regarding its relationship to Pacific salmon in the wild to illuminate the discussion on why are recoverable stocks not rebounding- is it that the soil biome of old growth of all forest types provided an inoculation against endemic disease that our P salmon have always carried (similar to the disease prevention inoculations we give our children and even our elderly)
- The value of harvesting these forests for financial reasons needs to be offset in other areas of our economy
- The jobs created and the value of work to individuals and society associated with the planning, harvesting, logging, hauling, processing, replanting, shipping needs to be redirected toward other jobs

Quote from one of the papers attached: "An ecological understanding of old-growth requires a multiscale perspective, ranging from individual trees to regions. A consensus on a single general ecological definition of old-growth will never be reached, but that should not preclude the development of specific definitions needed by managers. Old-growth forests share many attributes, such as spatial heterogeneity, but they also differ in many ways. Given the complexity and dynamics of forests, efforts to conserve biodiversity must be sensitive to the diversity of old-growth forests and must consider forests of all developmental stages, not just old-growth. One implication is that forest policies and management practices may need to be as diverse as the old-growth forests they address."

Some science and evidence from researchers and scholars:

ANCIENT WOODLAND VEGETATION: DISTINCTIVENESS AND COMMUNITY ECOLOGY

<http://eprints.glos.ac.uk/5800/>

Comparing Spatial Pattern in Unaltered Old-Growth and Disturbed Forest Landscapes

<https://esajournals.onlinelibrary.wiley.com/doi/abs/10.2307/1941832>

Ecological Concepts and Diversity of Old-Growth Forests

<https://academic.oup.com/jof/article/102/3/14/4613151>

Fungal-bacterial diversity and microbiome complexity predict ecosystem functioning

<https://www.nature.com/articles/s41467-019-12798-y>

Thank you for asking

P Ramage

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