

Interior Forest Sector Renewal Request for Public Feedback - Written Submission

Submitted by: Gerald Cordeiro, Forest Development Manager for Kalesnikoff Lumber Ltd.

Location: Central Kootenays

The key message in this discussion paper is to consider opportunities for enhanced land management in the form of agro-forestry/agro-ecology on areas of Crown land adjacent to communities, most especially where wildfire is a significant concern. The opportunity as I see it is to practice intensive management of these areas to produce food and/or botanical products in addition to timber. Using a permaculture food forest model, adapted for each particular biogeoclimatic unit, we can achieve multiple benefits, as described below.

This discussion considers the following forest policy areas:

Forest Tenure and Fibre Supply

I propose that a new form of tenure be created which would allow for permaculture to be practiced on Crown land in designated areas near and adjacent to communities. This would allow for the production of other valuable goods and services where timber volume production is already becoming somewhat less of a primary concern. This practice can be particularly useful within the WUI, where managed food forests would be significantly less of a wildfire threat while providing alternative benefits to offset the loss of sawlog production. Since Forest Licenses are the predominant tenure type in many parts of the province, Crown land can be made available within existing licensee operating areas since they are not legally defined area-based tenures.

Climate change and Forest Carbon

This is explicitly a climate change adaptation strategy. Given that climate change is a reality, energy needs to be focused not only on how to reduce our carbon budget, but also on how to adapt our societies to this new reality. The current model of forest management within the WUI depletes the timber resource and leaves a re-treatment liability that will become a public expense within decades or less. It only gains us a very short time of reduced risk, while setting us up for another burden on the taxpayers in the near future. We will be far better off if a valuable alternative set of crops can be established in conjunction with timber which will incent the maintenance of these areas with no tax burden. Government revenue will be possible from several avenues such as rent on the tenure, income tax, etc. so we could see a net gain in public revenues rather than an ongoing re-treatment liability. The selection of less or non-flammable species will reduce the potential for carbon emissions from wildfires and help to regenerate soil moisture capacity and nutrient levels if done properly. Food security is also a major concern given climate change projections. Having an additional local source of food enhances food security and reduces carbon emissions and energy requirements for transport.

Wood Products Innovation

The permaculture model can be adapted to local BEC zones, some or many of which can support alternative tree species which do not currently fit into recognized stocking standards. For example, the West Kootenay climate is well suited for walnut, which provides shade, inhibits growth of other flammable vegetation, and produces a valuable food crop. The timber value at maturity is very high in tended stands. This species has the ability to provide food, reduce wildfire risk, and support the timber industry with availability of high value fibre which can be utilized for more than just stick-frame studs.

Reconciliation with Indigenous Communities

Indigenous communities can directly benefit from local sources of food and added protection from wildfires. This also gives another tenure option to allow Indigenous Governments to create new revenue streams and gain local employment. Partnerships with forest licensees can be made within existing Forest License operating areas. Traditional Ecological Knowledge can be leveraged to support the production of locally relevant and viable species which have traditional use values.

Fibre Sustainability of Timber and Non-timber Values

Given that in WUI areas, timber production is no longer always the primary concern for forest management, this model can help to support an increase in non-timber forest values in a number of ways, including the following:

- **Biodiversity:** While these areas may not contain the usual plant community for their respective BEC zone, they have the opportunity to be highly biodiverse, and may create habitat for numerous species including birds, fish, invertebrates, etc.
- **Cultural Heritage:** This proposal gives opportunity for enhanced cultivation of traditional use species.
- **Fish/Riparian:** Many landscapes in BC are permissive to integration of aquaculture and creation of water storage for wildfire suppression should the need arise. Riparian habitats can be maintained and potentially enhanced by ensuring appropriate species are grown within the riparian area. Having an actively managed forest gives opportunities for stream rehabilitation.
- **Forage & Associated Plant Communities:** Some BEC types will be suitable for grazing, which can maintain a low state of flammability while still permitting a forest canopy that can produce timber and additional forage (ex. deciduous coppice trees).
- **Recreation:** Enhanced recreation opportunities can exist in these areas, as the increased human interaction with the forest will lead to pathways and enjoyable, beautiful spaces.
- **Resource Features:** A well-designed food forest should be able to provide ideal habitats for various species, and management activities can be scheduled around important life cycle phases for those species more easily than they can in a strict timber production forest.
- **Soils:** Soil moisture capacity and nutrient content can be enhanced through careful species selection and companion planting.
- **Timber:** Timber species should be able to cohabit these areas and potentially provide smaller volumes of higher value timber over the long term.
- **Visual Quality:** Areas where timber has been harvested can have visual quality enhanced through the cultivation of various species that may provide a differing colour palette throughout the year. This can enhance visual quality both from near and from afar.
- **Water Quality:** These areas would often require at least some level of irrigation, and the water infrastructure could be tied into domestic systems. Riparian areas could be maintained with species that promote bank stability and reduce sediment deposition into watercourses. Streamside rehabilitation could take place where risks have been increased by timber harvesting activities.
- **Wildlife:** A well-managed food forest should provide habitat for numerous species. Unwanted wildlife encounters may become an issue under this regime, however human-wildlife interactions can be managed more easily than many other problems faced at this time.
- **Opportunities for public participation and enjoyment of the forest** will enhance the social well-being of local communities, helping to bring people together from diverse backgrounds.
- **Species at risk.** In our specific case, there may be an opportunity to combine a permaculture food forest with a whitebark pine seed orchard, enhancing the potential for the long-term survival of that species.

This discussion considers the following Government Objectives:

A Globally Competitive Forest Sector

This proposal can fit in the context of a globally competitive forest sector if we choose to see the forest sector as also contributing products other than large volumes of timber. Opportunities exist within this proposal to produce smaller volumes of high value timber, including alternative species such as walnut. Additional food and/or botanical products can certainly be marketed globally, and should attract attention from informed buyers who want organic, ethically produced and sustainably sourced goods.

Resilient Communities and Workforce

Since this is a climate change adaptation strategy, it follows that one of the primary foci is a more resilient community. Increased food security and reduced vulnerability to wildfire are chief amongst the benefits of such a proposal. An increased sense of community can also be achieved where it appears to be on the decline in our modern society. These projects would create meaningful local employment with a higher number of jobs per hectare than the current industrial forestry model within selected areas.

Reconciliation with Indigenous Communities

As described above, there are a number of ways to involve Indigenous Communities under this proposal. Increased local employment, wildfire resilience, an ability to leverage TEK, increased food security, enhanced abilities to create partnerships with forest licensees, and an additional tenure option to create new revenue streams are some of the obvious benefits.

Sustainable Forest Management

This proposal creates an avenue for ongoing forest management which can replace the need for expensive re-treatments of WUI areas, creating a net benefit to society where we are currently faced with a repetitive taxpayer liability. The increased human interaction within these forested areas will lead to an enhanced appreciation for nature and stewardship of the land, while producing sustainable goods and ideally enhancing soil quality over time. The creation of more jobs per hectare in the forest with an ongoing rather than periodic return interval will lead to intensively managed areas that are maintained in an optimal condition for the long term. Forest health issues would tend to be more quickly recognized and dealt with. BC could become a global leader in terms of climate change adaptation and overall forest stewardship.

Summary:

I sincerely appreciate the opportunity given to provide feedback to the Government of BC with regards to one of our most important public assets. Thank you for your time in reviewing and considering this proposal. Below I have included an excerpt from a presentation I made to the City of Nelson Mayor and Council regarding a specific instance of where this proposal may be able to come to fruition. Please feel free to contact the City if you wish to hear their perspectives. Local MoFLNRORD staff have been exemplary in their support-in-principle for this concept as well. Many thanks to the good folks at Selkirk District for their forward-thinking and tolerance for out-of-the-box ideas. I would encourage the BC Government to share this idea openly, I have no request for confidentiality per the terms stated on the website.

Regards,

Gerald Cordeiro

Selous in Bloom

An Agroecology Approach to Climate Change Adaptation



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What is agroecology and why are you here listening to me talk about it?

Agroecology is the application of ecological principles to agricultural systems and practices, or the branch of science concerned with this.



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The United Nations appears to be on board

A 2013 publication by the United Nations Conference on Trade and Development (UNCTAD), entitled [‘Wake Up Before it is Too Late: Make agriculture truly sustainable now for food security in a changing climate’](#) highlights a global need for fundamental shifts in agriculture.



One key message of the report is as follows:

“We need to see a move from a linear to a holistic approach in agricultural management, which recognizes that a farmer is not only a producer of agricultural goods, but also a manager of an agro-ecological system that provides quite a number of public goods and services (e.g. water, soil, landscape, energy, biodiversity, and recreation).”

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Why Selous?

- Planning is already underway for a fuel treatment. Landscapes adjacent to communities are now being looked at through the lens of wildfire and climate change resilience. This area is not simply being managed for timber and visual quality.
- Proximity to the City of Nelson and the Salmo-Troup Rail Trail gives a unique opportunity to involve the public for social and educational purposes.
- West Kootenay culture. This is a forward-thinking and enthusiastic social environment to operate in.
- There is an expectation that we will need to re-treat areas to maintain wildfire resilience. This approach can create an incentive to maintain an ongoing condition of lower risk. We have no assurance there will be government funding for re-treatment.
- FLNRO support. Ministry officials have already given support in principle for this project. This is an opportunity to operate on Crown land.



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A Collaborative Project

The potential to bring diverse interests and skills together. This is as much a social experiment as it is a scientific experiment



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Interest has been expressed by:

- West Kootenay Permaculture COOP
- FLNRO Researchers
- Selkirk College
- West Kootenay EcoSociety
- Kalesnikoff

Other potential partners:

- City of Nelson
- RDCK
- CBT
- Rec Societies
- Agriculture Canada
- Young Agrarians
- Etc.