

Crystal Mountain Development Plan – Brief 4: Violation of Trust Policies on Forest Fragmentation and Clustered Development

The Crystal Mountain (CMS) rezoning proposal is a clear example of forest fragmentation, which the Islands Trust Policy Statement as well as Galiano's Official Community Plan (OCP) and its Land Use Bylaws (LUBs) specifically direct the Local Trust Committee (LTC) to prohibit (see attached Annex 1 for details). It also violates policies requiring any development on forest land and commercial development to be carefully clustered. Clustering is an important tool to achieve development without fragmentation.

The Upper Ridge development is particularly egregious to policies and directives related to forest fragmentation, as it requires separate infrastructure, including cabins, septic tanks and fields, water, drilled wells, kitchens, parking areas, bathhouses, laundries, access roads, etc.

Islands Trust planners have all recognized that the configuration of the proposed CMS development is contrary to policies that would prevent forest fragmentation, and even the CMS project manager has acknowledged that this configuration is "not ideal". Yet every CMS proposal has continued to show a fragmented configuration with two distinct developments, including one on the upper ridge. Instead, the LTC should reject the CMS proposal unless it is brought into compliance with Islands Trust Policy Statement and the Galiano OCP. It is not enough to say that the proponent insists on this fragmented configuration. It is up to the LTC to tell the proponent that their wishes are not compatible with our OCP or Islands Trust Policy Statement.

The relevance of policies on forest fragmentation may seem abstract to the LTC and the planners. We are hoping that this short paper will help to explain why policies on avoiding forest fragmentation are so vital to the integrity of Galiano's ecosystems and their ability to support both people and biodiversity over the long term.

What is fragmentation?

There are volumes written on forest fragmentation, what it is and why it is a threat to forest health, causes loss of biodiversity, increases invasive plants, pests and pathogens and results in reductions in water quality (Snyder 2014) as well as a host of other impacts on the ecosystem services that unfragmented forests provide. One of the least technical descriptions, and one that is particularly pertinent to Galiano Island, is found in Snyder (2014). Snyder describes how fragmentation happens in "an incremental way, with cleared patches here and there, until eventually the forest is reduced to scattered disconnected forest islands". This is exactly what is happening on Galiano Island.

Why forest fragmentation matters

"The most significant direct drivers of biodiversity loss are habitat loss and fragmentation and direct exploitation" (Woodley *et al.* 2021). Habitat fragmentation disrupts habitats, threatens biodiversity, impedes climate change adaptation and disrupts the ecosystem services which intact, connected ecosystems provide including provision for clean water. A large body of science and theory has been developing to address solutions to fragmentation, but of course the most effective solution is to prevent fragmentation in the first place.

How has the Island Trust Policy Statement addressed fragmentation?

Encouragingly the Islands Trust Policy Statement recognizes the importance of preventing forest fragmentation, as it requires "protection of unfragmented forested ecosystems within ... local planning areas from potentially adverse impacts of growth, development and land use" (Page 9).

Annex 1 (below) identifies the most pertinent policies, found in the current Islands Trust Policy Statement but in even greater detail in the proposed revisions to the Islands Trust Policy Statement.

How does Galiano's OCP address fragmentation?

Galiano Island OCP – Consolidated July 2021 - includes a section on forest objectives which are intended to “preserve and protect the forest, its biodiversity, integrity and ecological services”. This includes maintenance of carbon storage and sequestration. All of these objectives require unfragmented forests to be met.

Trustee Wolverton, in a post on August 2, 2019, demonstrated a good understanding of these issues. In her words Directive Policies 4.2.7 require “*OCPs and regulatory bylaws to address the retention of large land holdings and parcel sizes for sustainable forestry and the location and construction of roads and utility and communication corridors to minimize the fragmentation of the forest*”.

References

- Snyder M (2014). What is Forest Fragmentation and Why is it a Problem? *Northern Woodlands Autumn*.
<https://northernwoodlands.org/articles/article/forest-fragmentation>
- Woodley S, Jarvis JB, Rhodes A (2021). Ensuring area-based conservation meets the twin challenges of biodiversity loss and climate change. *Parks Stewardship Forum* 37.
<https://doi.org/10.5070/P537354729>

Annex 1: Islands Trust and Galiano OCP Policies that are violated by the Crystal Mountain Proposal.

Below are the policies and directives that require protection of unfragmented forests, none of which are met by the highly fragmented Crystal Mountain proposal.

- 1. *Island Trust Policy Statement Consolidated – April 2003*** directs LTC in their OCPs and LUBs to address the protection of unfragmented forested ecosystems within their local planning areas from potentially adverse impacts of growth, development and land use (page 9).
- 2. *Proposed Islands Trust Policy Statement, Draft Bylaw No. 183, Part 4. Ecosystem Preservation and Protection***
“In the Trust Areas, the establishment of networks of protected areas and unfragmented forest reserves that are large enough to contain and sustain native Trust Area species is essential to environmental integrity” (Page 15).

Environmental Integrity Policies 4.1.3 – “Trust Council commits to establish and sustain a network of protected areas throughout the Trust area, in collaboration with the Island Trust Conservancy Board, acknowledging that unfragmented connectivity is necessary to preserve ecosystems in sufficient size and distribution to sustain their environmental integrity”.

Directive Policy for Local Trust Committees (page 16) 4.1.7 would require local trust committees to preserve protect and support “contiguous, unfragmented forests and associated ecosystems, freshwater networks and groundwater recharge areas, and sensitive ecosystems (cliffs, freshwater, herbaceous, old and mature forests...” among other things.

Directive Policies 4.3.6 (page 20) would require local trust committees in their OCPs to prioritize the environmental integrity of the Trust Area by protecting unfragmented forest ecosystems, on a scale of forest

stands and landscapes, from the potentially adverse impacts of growth, development and land use”.

Directive 4.3.7 (page 20) would require LTCs in their OCPs “to retain large land holdings and parcel sizes to enable sustainable forest harvesting practices and direct the location of roads and utility corridors to minimize the fragmentation of the forests”.

3. Galiano Island Official Community Plan Bylaw No. 108, 1995. Consolidated July 2021

Forest Policies, page 15 – 16

“Unplanned proliferation of residential uses throughout the forest would be contrary to many of the objectives and policies in this plan, including particularly those dealing with the integrity of forest ecosystems and surface water and groundwater supplies and the impact of residential services such as roads. Instead, in order to preserve and protect the forest resource, the plan favours the clustering of residential uses on sites within the forest, carefully selected as the basis of sound planning principles, with the balance of the lands being set aside for forest uses in perpetuity”.

a) “... in order to preserve and protect the forest resource, the plan favours the clustering of residential uses on sites within the forest...”

k) “ The fragmentation of Forest-designated lands by roads or other service or communication corridors shall be minimized”.

Section II Land use- Land Use Policies

Land use decisions for all zones shall be directed by the following criteria where relevant
xii) “the importance of forest cover and the retention of unfragmented forest ecosystems”

This document (Brief 4 of 5) was prepared by Galiano residents and landowners who are concerned about the Crystal Mountain application: Sheila Anderson, Serena Coutts, Jenna Falk, Akasha Forest, Suzanne Fournier, Dan Gaucher, Bob Grist, Diana Lilly, Brad Lockett, Pat Mayhill, Ian Mayhill, Tom Mommsen, Art Moses, Sandy Pottle, John Ronsley, Risa Smith