The members of the Yellow Point Ecological Society work to understand, appreciate, protect and restore the ecosystems and watersheds in the Yellow Point area of Vancouver Island, and to inspire and support local residents and visitors to do the same.
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Suggested Changes to the Private Managed Forest Lands Program

from the Yellow Point Ecological Society
July 22, 2019

In BC, we have Crown forests. We have private forest lands, where most people live. We have public forests that are protected as parks. We have community forests, such as North Cowichan's. And we have the Private Managed Forest Lands, which are actively harvested while being under private ownership.

Each type of forest is governed by different people and different rules. The urgent need that faces us, at this unprecedented time of climate and ecological emergency, is to find ways to manage the forests in which our needs for timber, income and jobs can be met while nature is nourished, carbon is stored and water is protected.

Very much to the point, the BC government is asking for our ideas on how the governance and management of Crown Lands and Private Managed Forest Lands might need changing. This paper is focussed on the latter. Our thoughts about Crown lands can be found on our website.

The climate emergency is such that we need to reduce our harmful carbon emissions as rapidly as we possibly can, while simultaneously increasing the means by which Earth's forests, farms, grasslands and oceans re-absorb the dangerously excessive carbon.

The ecological emergency is such that the team of scientists who have written the Global Deal for Nature are urging that we need to preserve 50% of Earth's lands in a natural state by 2030 if

we are to have a hope of keeping global heating under the "danger zone" target of 1.5 degrees Celsius, and prevent the world's ecosystems from unravelling.[1]

The History of the Private Forest Lands

The Private Managed Forest Lands on Vancouver Island have their origin in the 1875 E&N Rail Grant, when a quarter of Vancouver Island from Sooke to Campbell River (two million acres) was given to Robert Dunsmuir as part of the arrangement to build a railway on the Island. In the years between 1925 and 1960 the Dunsmuirs sold most of their lands to coal and forest companies.

Two big companies own the most Private Managed Forest Lands on Vancouver Island: TimberWest and Island Timberlands. Some of the Dunsmuir forest lands were bought by MacMillan Bloedel, which was later bought by Weyerhauser, parts of which were later bought by Brookfield Asset Management, which then created Island Timberlands, seeking a 12-15% return on equity, presuming industrial logging followed by real estate development.

Other forest lands were bought by the American pulp and paper conglomerate Crown Zellerbach, parts of which were bought by Fletcher Challenge, which over time became TimberWest in 1997. In the late 1990s, TimberWest developed a sustainability agreement with the government in which their Oyster River Division in the Comox Valley would harvest 400,000 cubic metres a year. In the late 1990s, however, TimberWest's owners decided to become an Income Trust, which required them to provide a guaranteed 8% return to their unit holders. In pursuit of this they ditched the sustainability agreement and increased harvesting to 1.2 million cubic metres a year, to much community protest. In the years between 2008-2011, Brookfield Asset Management, Western Forest Products, Weyerhauser and TimberWest donated $290,000 to the BC Liberals, in the expectation of favours.[2]

In 2011, TimberWest[3] and Island Timberlands[4] were bought by the British Columbia Investment Management Corporation, the Public Sector Pension Investment Board and the Alberta Investment Management Corporation for just over $1 billion. TimberWest's core business is selling hemlock and Douglas fir logs from their 327,000 hectares to B.C and Pacific Rim markets. In 2011, Asian exports accounted for 70% of their log sales and revenue. In 2018 the two companies entered into an agreement to provide for shared use of facilities, align best practices and enhance forest stewardship, and they are now managed jointly by Mosaic Forest Management.[5]

With an eye on the long-term, TimberWest has earmarked 17% of its 322,000 hectares as being suited for real estate development in addition to forestry. Island Timberlands has done the same for 5% of its 256,000 hectares.

The Private Managed Forest Lands in total includes 278 private managed forests covering 818,000 hectares, from which 4.76 million cubic feet were harvested in 2017, representing 7% of BC's timber harvest.

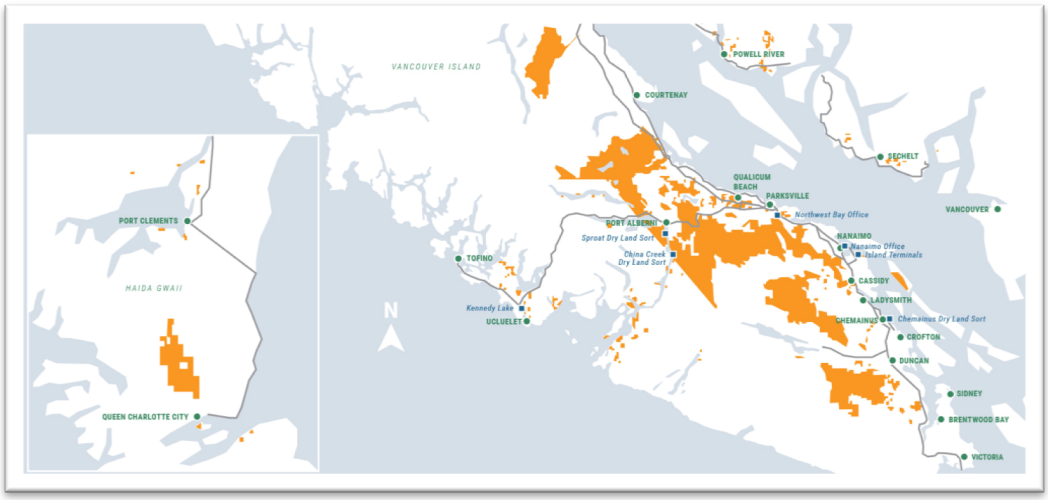
On Vancouver Island there are 201 managed forest, on which 33 owners harvested 8,861 hectares of forest, yielding 4.27 million cubic metres of timber (482 cubic metres/hectare), 28% of the Island's timber harvest.[6] At 40 cubic metres per logging truck, that's 107,000 trucks, which parked nose-to-tail would stretch 1819 km from Vancouver to Winnipeg.[7]

BC's total average annual timber harvest is 77 million cubic metres, or 1.95 million logging trucks, which parked nose-to-tail would stretch for 33,000 kilometres, 7,000 km short of the circumference of the Earth.

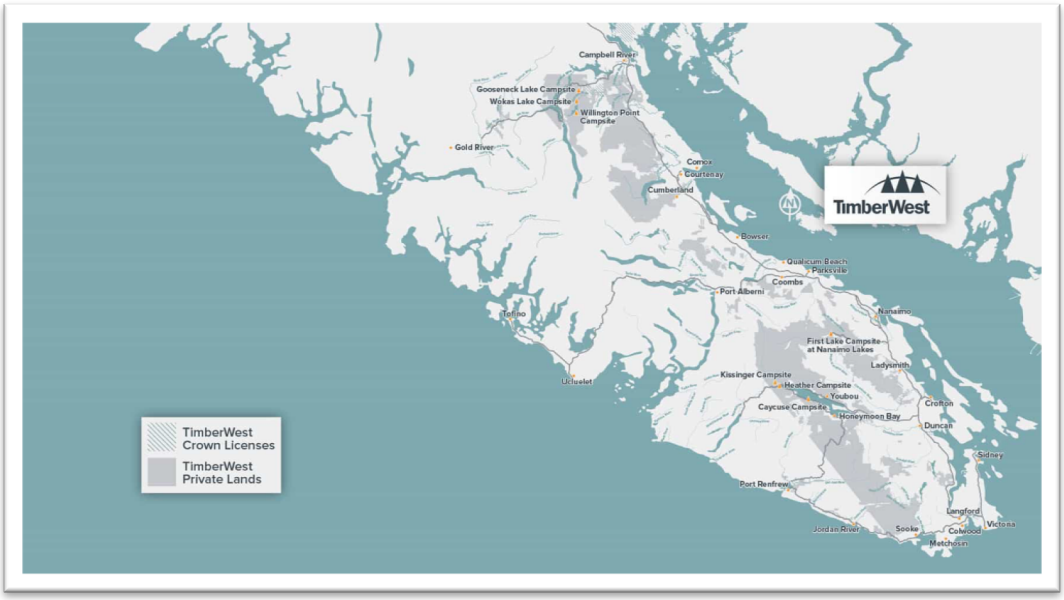
Ecologically Sustainable Investments

The wants and needs of investors are defining motivators at heart of modern economies, accompanied by the externalization of costs to nature, communities and workers, in accordance with the principles of neo-classical economics. The natural growth rate of timber in forests on the east coast of Vancouver Island is 2%-4%, but TimberWest's investors at the time demanded 8%. The only possible sources of a return higher than the natural growth rate are increased productivity, which is currently pushed to the limit with the use of feller-bunchers, decreased wage-costs, reduced payment of taxes, or unsustainable harvesting. The additional return could be achieved by liquidating the forest over 20 years and then selling the company to a private equity (leveraged buy-out) firm, but this would be vulture capitalism at its worst, close to piracy, with the forest being the stolen booty.

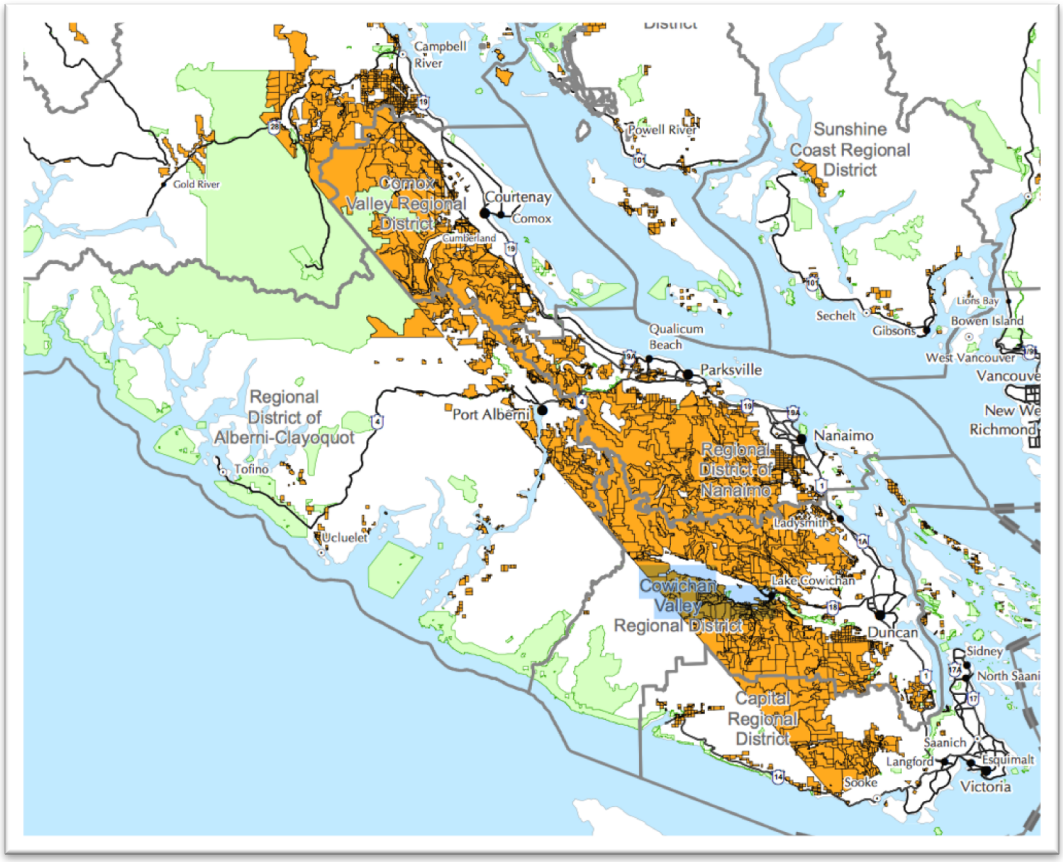
As the sole intermediary between the government and the private sector, the Private Managed Forest Lands Council bears the responsibility for ensuring that large land-owning companies do not abuse the privileges they receive through the Program by exploiting the forests under their stewardship in a non-sustainable manner. The forests have been here for 12,000 years, and if we manage them responsibly, and if they can survive ecological disruptions caused by the climate crisis, they will be here for many thousands of years to come.



Island Timberlands Forest Lands



TimberWest Forest Lands



Vancouver Island Private Managed Forest Lands

https://engage.gov.bc.ca/app/uploads/sites/491/2019/05/PMFL_Lands_Southwest.pdf

Troubles on the Land (1) - Watershed Impacts

Many people in the Comox Valley, the Nanaimo watershed and the Cowichan Valley have been troubled by the way the big companies have been logging. In the Comox Valley, mountainsides have been stripped bare of their timber, silt and mud is being washed away, the rivers are flooding in winter, and there are boil water advisories in the summer. In consequence, the CVRD is having to build a sophisticated underwater pumping station and an onshore pump station with filtration, chlorination and UV treatment, costing local taxpayers a probable $125 million. When New York City's 9.5 million residents were faced with a $10 billion cost to build new water filtration plants, plus $100 million a year to maintain them, they found that they could achieve the same result by investing $1.5 billion in watershed restoration with 368 local landowners.[8]

In July 2019 the Narwhal reported that: "In Peachland in the Okanagan, where extensive logging has taken place nearby, a landslide downslope of a logging road contributed to boil-water advisories and the need for a new $24 million water treatment plant funded by the community. In Grand Forks, sprawling clearcuts are believed to have played a major role in a monster flood in 2018 that inundated houses and led to the closure of 28 downtown businesses. In the Regional District of Central Kootenay — which stretches from the U.S. border to north of Nakusp and includes Glade and the cities of Nelson and Castlegar — at least seven communities face clear-cut logging on slopes that are home to the creeks that supply their drinking water."[9]

Because of the heavy logging, the Columbian blacktail deer that used to browse on lichen hanging from old growth trees at upper elevations to get them through the winter have been forced down into the valleys to feed on gardens and fruit trees. In the Cowichan Valley, similar problems have arisen: mountainsides stripped bare, flooding in winter, and the Cowichan river drying up in summer, threatening the spawning grounds of the coho, and the spring salmon, on which the southern killer whales depend.[10] The warming climate and shrinking glaciers are also contributing, demonstrating how the different impacts combine.

Troubles on the Land (2) - Climate Impacts

Clearcut logging has big climate impacts. A healthy growing forest is a carbon sink, absorbing CO2 through photosynthesis and storing it as carbon in the timber and soil. In consequence, over the millennia BC's forests have become a huge store of carbon. Old growth forests in the Pacific Northwest with a timber volume of 1500-1800 cubic metres per hectare hold carbon stocks that vary from 750 to 1130 tonnes per hectare, with 30-50% being stored in the soil and 400 to 500 tonnes in the trees.[11]

When the timber is cut and used for pulp or paper and the soil is disturbed each cubic metre of timber releases a tonne of CO2. The 4,270,000 cubic metres that are logged each year in the Private Managed Forest Lands on Vancouver Island therefore release some 4.27 million tonnes of CO2, the equivalent of a million cars driving on the road for a year. BC's total harvest,

averaging 77 million cubic metres, releases 77 million tonnes of CO2, compared to 62 million tonnes for BC's annual emissions from everything else.

Once clearcut, a hectare of forest debris becomes a net source of 22 tonnes of CO2 per hectare per year. The shift from source to sink occurs at around 17 years, and a near-end-of-rotation stand (50-60 years-old) stores 15 tonnes per hectare.[12] The Sierra Club has estimated that Including forest fires, BC's net forest emissions totalled 209 million tonnes a year in 2017 and 2018, three times more than all other emissions combined.[13] For the average log, the Sierra Club estimates that 23% of the carbon is stored in timber products; the BC government estimates 52%.[14]

How Does the Private Managed Forest Lands Program Work?

In 2004, the Forest Land Reserve Act was repealed, the Forest Land Reserves were dissolved, and the Private Managed Forest Land Act was enacted "to encourage sustainable forest management and protect key environmental values on private managed land." The owners of the 278 managed forest properties, which range in size from 3.5 hectares to 166,000 hectares, make a commitment to meet five general environmental objectives, covering soil conservation, water quality, fish habitat, wildlife habitat and reforestation. They pay for the program's operating costs through a levy of 13 cents/cubic metre, and in return they receive a municipal tax reduction. In 2011, on Cortes Island, Island Timberlands paid $5-6/acre, compared to $62/acre for other landowners. On its 1,800 hectares, over 20 years the program will save Island Timberlands $4.7 million in property taxes.

The program is managed by a five-person Private Managed Forest Land Council, consisting of two owner reps, two government reps, and a jointly chosen chair. They make and enforce regulations, make compliance determinations, conduct inspections and audits, review landowner applications, and review annual declarations by the owners. Inspections are made by hired professional foresters at least once every 5 years, and they boast a 99.5% compliance rate, based on a 15% inspection rate. There is no First Nations engagement, no community engagement, no public environmental engagement, no public input into logging plans, and no long-term planning.

Regarding methods of logging, forest landowners are not required to submit a plan for approval, and they are not constrained on their annual timber volumes – there are no sustainable harvest level requirements. They have to follow standards of practice with regard to harvesting, stream protection, road construction/maintenance, and reforestation, and they have to honour the five environmental objectives. The devil is in the details, however:

- **Soil conservation**: Owners have to follow set practices with regard to road-building, but not for general logging.
- **Water quality**: Owners have to pay attention to Local Water Intakes (LWI), but not to water run-off in a watershed as a whole.

- **Fish habitat protection**: streams are classified by width, and whether they are fish-bearing or upstream of an LWI. Tree-retention is required for most, varying from 30 metres for A to 15 metres for C. On streams classified D or E, which are less than 1.5 metres wide, no tree retention is required. Riparian buffers are measured on slope distance without being corrected to horizontal, enabling smaller buffers with less tree retention adjacent to steep slopes.
- **Wildlife habitat**: measures must be taken to protect species listed in the Wildlife Act and the Species at Risk Act such as the red-legged frog, but not for non-threatened species.[15] Biological studies are not required before harvesting, so unless an owner chooses voluntarily to engage a professional, there is no formal means by which species and habitats at risk might be identified and protected.
- **Reforestation**: newly cleared forest areas must be restocked within 5 years and successfully regenerated within 15 years, but there is no requirement to protect the best or oldest trees that drop seeds of proven genetic quality, allowing natural regeneration while also producing the big dead wildlife snags that have ecological value.
- There is no mention of any need to consider or mitigate forest carbon loss.
- There is no mention of any need to protect community drinking watersheds.
- There is no mention of any need to take measures to reduce fire risk.
- There is no mention of any need to consider cumulative ecological and hydrological impacts from activities within a shared watershed.

Suggested Changes

Governance

How can a broader, more ecologically inclusive perspective be brought to the governance of the program?

1. We suggest expanding membership of the Council to include more people, bringing in people who have climate, ecological, and ecological forest management expertise, and First Nations heritage.
2. We suggest forming regionally-based Forest Stewardship Advisory Councils, including participants from First Nations, universities, regional districts, local communities, local mills, forestry organizations and ecological organizations, to meet twice a year to review practices and make recommendations for change.
3. We suggest that forest owners be required to post their harvesting plans and invite public input prior to operations commencing.

Mandate

4. We suggest widening the mandate of the program, adding six new objectives to serve the common interest in ways that are clear and measurable.
   (a) To ensure that watersheds that are the source of drinking water for local communities produce consistent, high quality, naturally filtered drinking water.
   (b) To reduce average forest carbon emissions per hectare and increase average forest carbon storage per hectare over the long-term (200 years).

(c) To increase climate resilience by means of ecological forest management.
(d) To reduce fire risk by thinning and other means at both stand and landscape levels.
(e) To engage in long-term 200-year forest planning and set sustainable harvest and thinning rates which will help to advance a regenerating forest along the old growth curve, using ecological forest management methods including landscape planning, canopy retention, multi-age trees, the preservation of wildlife snags, and natural regeneration from identified seed trees.
(f) To engage with First Nations and local communities to identify community values, sites of special interest, and locations for hiking and mountain bike trails on ownership parcels larger than 1,000 hectares, in accordance with the spirit of the Right to Roam legislation that was put before the BC Legislature in 2017 to ensure the right of citizens "to access public lands, rivers streams and lakes and to use these spaces to hunt, fish and enjoy outdoor recreation in accordance with the law."[16]

When considering how forest owners respond to the proposed new mandates, we recommend that a distinction be made between large and small landowners, since there is a big difference between the management of forest land covering 166,000 hectares and land covering 40 hectares.

Site Management

5. We suggest four site-management changes:
   (a) 60-metre no-harvest zones along lakes and Class A streams, 40 metres alongside streams Class B and C, and 20 metres along streams classes D and E, all to be measured on slope distance corrected to the horizontal from the high water mark of a stream.
   (b) End slash pile burning, in accordance with work being done by the Coastal Forest Sector Revitalization Initiative and partners in the Cowichan Valley. We suggest that measures are developed to quantify air quality changes and the anticipated reduction in respiratory ailments, bringing healthcare cost savings.
   (c) End spraying with glyphosate and other harmful herbicides to eliminate trees that are economically less valuable but still ecologically important.[17] Glyphosate has been shown to increase the risk of cancer to those exposed by 41%.[18]
   (d) Require a secondary species planting program on recently harvested lands including cottonwood, maple, bitter cherry and alder, mimicking the natural forest succession process and providing important forest ecology properties including wildlife habitat.

Species at Risk

6. If a biological or ecological study is not conducted it is not possible to identify species at risk before harvesting. Given the urgency of the global ecological crisis, regarding which the IUCN reported in July 2019 that a third of all assessed species are now red-listed as being in danger of extinction, we suggest that a study by a professional biologist prior to harvesting is required, and that criteria for the protection of identified endangered species and their habitats should be codified.[19]

Watershed Protection

7. In order to protect community drinking water supplies that depend on the hydrological integrity of a watershed as a whole, not just on Local Water Intakes, we suggest that the community watershed guidelines that were grandparented into the Forest and Range Practices Act in 2004 be written into the legislation governing the Private Managed Forest Lands, and that a hydrological study followed by sign-off from the relevant Regional District be required before harvesting in a community watershed can occur.[20]

   When the Forest Practices Board studied community watersheds managed under the FRPA in 2014, they found that:

   - Requirements to protect drinking water were not clear or well understood.
   - Commitments made in forestry plans were not always enforceable.
   - Greater emphasis needed to be placed on erosion and sediment control on forestry roads.[21]

   In support of the FPB's recommendations to ensure that the government's objectives for community watersheds are achieved, we suggest that the Private Managed Forest Lands Program:

   - Clarifies requirements for the protection of water.
   - Defines the concept of cumulative hydrological effects.
   - Requires publicly available harvesting plans to include hydrological analysis which includes cumulative hydrological effects.
   - Ensures that professional reliance assessments are meaningful.
   - In partnership with Regional Districts, monitors water quality in community watersheds and tracks their status.

   We further recommend that members of the Private Managed Forest Lands Council urge the government to fully implement the Water Sustainability Act, which would go 60% of the way towards protecting critical community watersheds.

Ecological Restoration

8. We suggest that large forest land owners be required to set aside a financial reserve in a Private Managed Forest Lands Program Account for the purpose of ecological restoration following defined damage, those moneys to be foregone if the restoration does not proceed, or if the consequences of the damage before restoration have to be offset (for instance) through municipal water treatment. Carefully defined criteria will be needed to evaluate damage and create financial and legal certainty.

Other Suggested Changes

9. **Silviculture Savings Account:** Considering the uneven annual flow of income to land owners owning smaller parcels of forest, resulting in higher taxation in harvest years and lower taxation in non-harvest years, we suggest that the Ministry of Finance create

a Silviculture Savings Account, similar in character to an RRSP or RESP, allowing earnings to be stored and taxed when they are withdrawn, unless the withdrawal is for a silvicultural investment.

10. **Conservation Tax Incentive Program**: Considering the ecological values that are enhanced by the practice of ecological forest management, retaining the canopy and managing a forest with the intent to restore old growth qualities, we suggest that the Ministry of Finance consider creating a Forestry Class Exemption, and/or a Conservation Tax Incentive Program similar in spirit to the Agricultural tax reduction.

11. **Density-transfer**: Considering that some private forest land owners may have no intention or desire to develop their land in accordance with their permitted residential densities, we suggest that the Ministry of Municipal Affairs develop a province-wide set of density-transfer regulations, enabling forest land owners to sell their density rights into other approved areas.

12. **Two hectare lower limit**: Considering that many small land owners may be interested to harvest timber from their forest lands in a sustainable manner, we suggest that where landowners become members of a locally established forestry association or cooperative, as is common in Finland, the lower limit for the program be reduced from 3.5 to 2 hectares.

Other Forestry-Related Suggestions

We would like consideration for these related suggestions, which may or may not fall under the Private Managed Forest Land Program's remit:

13. **Trees as a Farm Crop**: On private land classed as farmland, we suggest that the Ministry of Forests work with the Ministry of Agriculture to enable trees to be declared a farm crop for farming purposes, enabling forest-farmers to qualify for the agricultural land tax credit. The current list of qualifying crops only includes Christmas trees and the intense cultivation of plantations of poplar and willow.[22]

14. **A Forest Thinning Incentive Program**: We suggest that the Ministry of Forests work with the Ministry of Finance to develop a forest thinning incentive program to reduce fire risk, increase multi-age species representation, and advance a forest down the oldgrowth curve.

15. **A Forest Carbon Incentive Program**: We suggest that the Ministry of Forests work with the Ministry of Environment and the Ministry of Finance to develop a Forest Carbon Incentive Program, establishing regulatory mechanisms and financial incentives to reduce average carbon emissions per hectare and increase average carbon storage per hectare, to contribute to the missing 25% of emissions reductions in the province's CleanBC 2030 goals.[23]

16. **Transition to Ecological Forest Management**: We suggest that in light of the urgency of the climate and ecological emergencies, the Ministry of Forests work with the Pacific Institute for Climate Solutions at UVic and the UBC School of Forestry and the Ministry of Finance to develop a ten-year transition for all forests in BC to ecological forest management. The knowledge base already exists through fifty years of ecological forest management science, some of which was well-expressed in BC's old Forest Practices Code. We suggest using incentives for five years, followed by a regulatory approach if the incentives do not produce the needed results.

END

Contact: Guy Dauncey, President. guydauncey@earthfuture.com 250-924-1445

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