The Future of Forests and Communities on Vancouver Island

Island Forest Futures
Policy Statement

DRAFT FOR DISCUSSION

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Executive Summary

The forests and communities of Vancouver Island are at a crossroads.

One path entails ongoing public subsidies toward liquidation of the island's last old-growth rainforests for commodity exports and underutilization of second-growth forests – with declining jobs, communities and revenues, and harm to ecosystems and watersheds.

The other path protects biological diversity and embraces modern silvicultural practices, working with nature to grow high-quality, high-value wood and optimizes the social and economic return to communities from every tree logged from Vancouver Island's managed forests through an **immediate transition** from:

(1) old-growth logging to **ecological management of second-growth forests**;

(2) volume-based commodity exports to **value-based production** of high-quality wood products;

(3) capital-intensive to **knowledge- and labour-intensive processes**;

(4) corporate tenures on Crown land to **community tenures** administered by regional districts and First Nations.

This policy statement and its lead sponsor, Island Forest Futures, advocate strongly for Vancouver Islanders to embrace the transition to a **Value-Based Silvicultural Model** with **Democratic Land Management** through Regional Forest Boards and Regional Log Markets.

Learning from Sweden, where sustainable forestry was implemented *after* old-growth forests had been eliminated, **we can make the transition now** – protecting old-growth forests and drinking watersheds, recognizing timber production and biological diversity as equal under the law, and increasing the social and economic potential of Vancouver Island's forests for present and future generations.

Vancouver Island's forests and communities are at a crossroads
Source: T.J. Watt

Contents

Indigenous Peoples of Vancouver Island
Source: Adapted from base map by editors

1. The Problem: Island Forests and Communities in Decline

Vancouver Island, the largest landmass off the Pacific coast of the Americas, is approximately 3.25-million hectares in size. Forests cover about 91% of the island. The island's temperate forests are some of the most extraordinary in the world, with rich biological diversity of plant and animal species, including awe-inspiring Douglas-fir, Sitka Spruce, Western Red Cedar and Western Hemlock that tower hundreds of feet from the forest floor to the sky. The coastal western hemlock biogeoclimatic zone accounts for 84% of the island, while the higher-elevation mountain hemlock and coastal Douglas-fir zones account for the remaining 12% and 4%, respectively.[1]

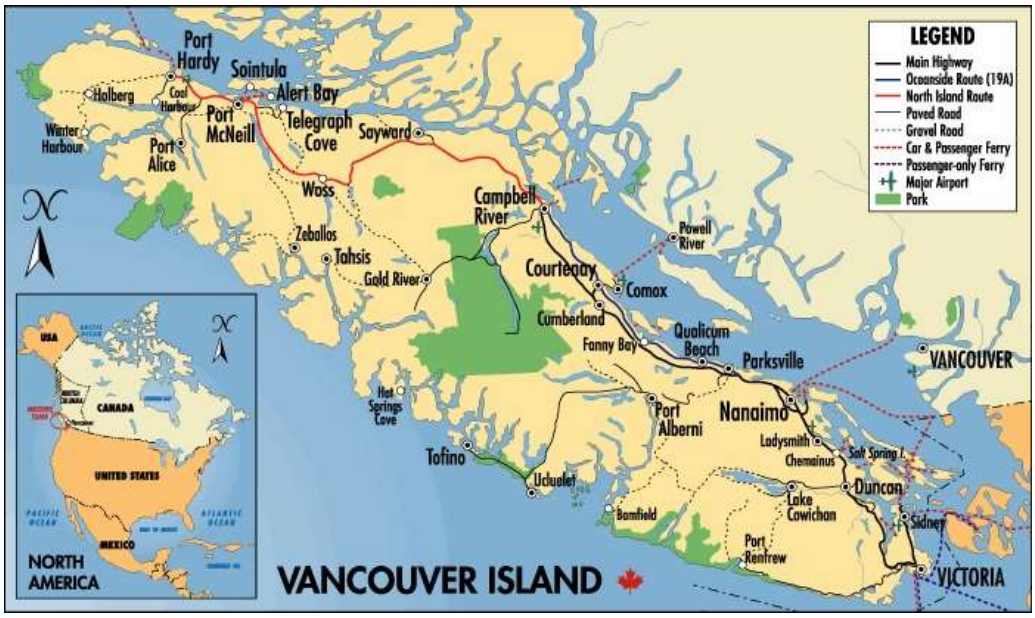
For thousands of years, Nuu-chah-nulth, Kwakwaka'wakw and Coast Salish people have stewarded the island's forests for food, medicine, clothing, building materials, fuel, and cultural and spiritual practices. In a century and half, settlers from Europe and other corners of the planet have converged on the island and transformed three-quarters of the island's ancient forests in this Indigenous territory into an industrial landscape of clear-cuts, short-rotation tree farms and developed urban and suburban areas.

This revolutionary upheaval has generated billions of dollars in profits and government revenues, but left an uneven economic legacy in many communities on the island, which is presently inhabited by about 770,000 people. Indigenous communities on the

[1] British Columbia (2000), *Vancouver Island Summary Land Use Plan*, p. 1.

island lack access to land and resources and grapple with persistently high rates of unemployment, poverty and a range of social issues. Settler communities in resource-dependent towns such as Port Hardy, Port McNeill, Campbell River and Port Alberni also face high rates of unemployment, poverty and social problems, and instability from the boom-bust forest economy, notwithstanding the substantial wealth that has been extracted from forested hillsides and valleys surrounding these communities.

The purpose of this policy statement and its lead sponsoring organization – Island Forest Futures – is to explain the necessity, possibility and benefits of another transformational change in how Vancouver Island's forests are managed. The statement embraces best practices in silviculture and forest policy from Scandinavia and jurisdictions around the world, advocating a transition from volume-based to value-based production, an end to old-growth logging and the transfer of administrative control over, and benefits from, Vancouver Island's forests from corporations to communities – exercised democratically through regional districts and regional log markets with respect for Indigenous rights and title. The model empowers communities to apply sustainable silvicultural practices to the long and short-term stewardship of forest lands, working with nature to grow high-quality, high-value wood, increasing jobs while protecting ecosystems and watersheds.

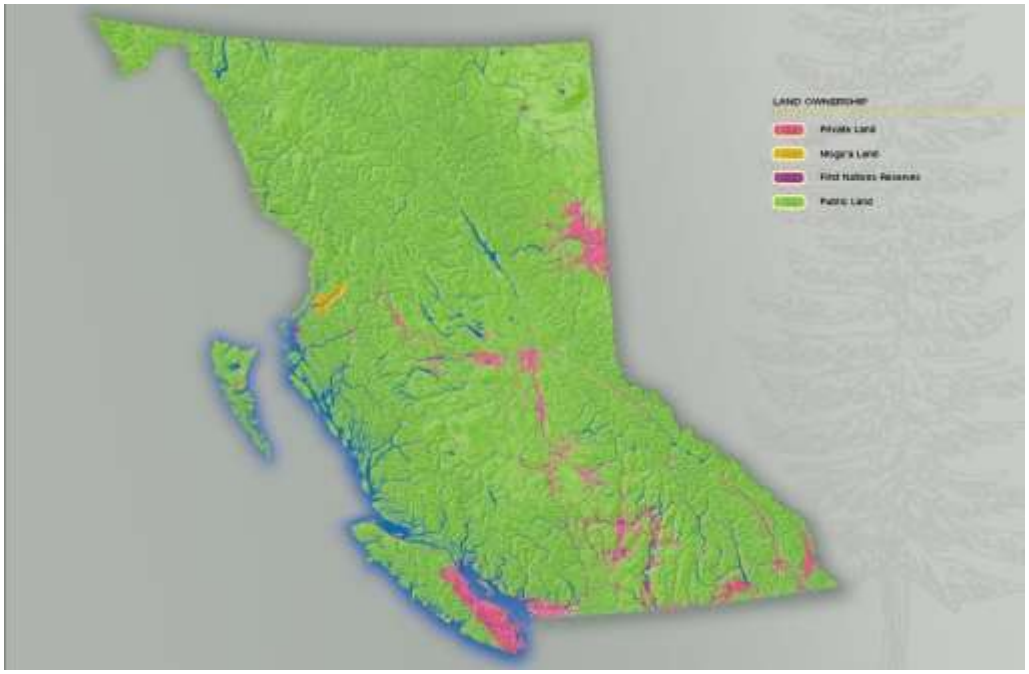


Source: Village of Port Alice

1.1 Private Control of Land and the Twilight of Corporate Industrial Logging

The existing model of corporate control of private forest tenures on public land and fee simple ownership of private land has resulted in the extraction of billions of dollars of wealth from the ancient forests of Vancouver Island, accompanied by substantial loss of biological diversity and economic decline for Indigenous and resource-dependent communities on the island.

This is particularly troublesome since two-thirds of the island's land base is publicly owned forest land (with Crown land accounting for 94% of the total land base of the province).[2] However, since the 1940s control over the island's vast public forests has been surrendered to private corporations through the Tree Farm Licence system (originally called Timber Management Licences). These licences transfer day-to-day management of public forests to private corporations, for their sole benefit, while mandating non-sustainable annual cutting levels that spur companies to log old-growth first. This results in degradation and incremental replacement of sensitive ecosystems with young forest plantations.



Land ownership, Vancouver Island and British Columbia
Source: British Columbia, *British Columbia's Forests: A Geographical Snapshot* (2003)

[2] British Columbia (2000), *Vancouver Island Summary Land Use Plan*, p. 2.

Esquimalt and Nanaimo Land Grants, 1884-1925

Source: W.A. Taylor, *Crown Land Grants: A History of the Esquimalt and Nanaimo Railway Land Grants, the Railway Belt and the Peace River Block* (BC Ministry of Environment, Lands and Parks, 1975).

This *de facto* privatization of Vancouver Island's public forests through the Tree Farm Licence system compounds problems created a century ago with the alienation of more than 850,000 hectares of land – nearly a quarter of the island's land base – between 1884 and 1925 with the Esquimalt and Nanaimo Land Grants from the Government of Canada and Government of British Columbia to coal baron Robert Dunsmuir and his associates. As the Hul'qumi'num Treaty Group (representing several island First Nations including Cowichan, Lyackson and Penelakut) notes: "the deal marked the beginning of a gradual, unremitting decline in our economic, cultural and social well-being, in which we witnessed the loss of most of our land and resources – almost 85 percent."[3]

Most of the E & N Lands passed from the Dunsmuirs to the Canadian Pacific Railway, ending up today largely owned by forest companies TimberWest, Island Timberlands and Western Forest Products. The "great land give-away" privatized the southeastern quarter of Vancouver Island and provided the economic basis for declining timber supply, land speculation and modern-day urban and suburban sprawl – "urbanization of the second growth."[4]

1.2 Provincial Oversight of Declining Biological Diversity and Carbon Storage

The Government of British Columbia has presided over substantial decline of Vancouver Island's old-growth rainforests and corresponding loss of biological diversity of plant and animal species found nowhere else on Earth. Only a quarter of the island's productive old-growth remains standing.[5] This process of ecosystem loss is apparent from the following illustration, comparing old-growth forest coverage between the 1950s and 2014:

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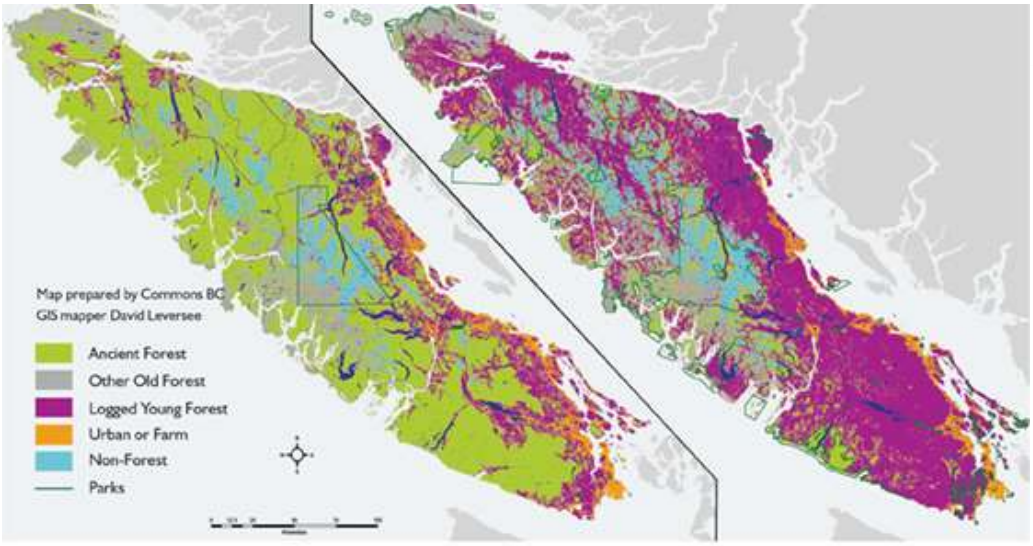
[3] Morales, R. (2008), *The Great Land Grab: Colonialism and the Esquimalt & Nanaimo Railway Land Grant in Hul'qumi'num Territory*. Ladysmith: Hul'qumi'num Treaty Group.

[4] BC Ministry of Environment, W.A. Taylor (1975), *Crown Land Grants: A History of the Esquimalt and Nanaimo Railway Land Grants*; Horter, Will (2008), "Vancouver Island's Great E & N Railway Land Grab." *Watershed Sentinel*.

[5] Sierra Club of British Columbia. 2009. *State of British Columbia's Coastal Rainforest: Mapping the Gaps for Ecological Health and Climate Protection.* For a definition of old-growth, see Franklin, Jerry F. and Thomas A. Spies. 1991. "Ecological Definitions of Old-Growth Douglas-Fir Forests." In LF. Ruggiero et al. *Wildlife and Vegetation of Unmanaged Douglas-fir Forests.* Portland: US Dept. of Ag., Forest Service. 61-69 pp.



Forest cover on Vancouver Island in the 1950s (left) and 2014 (right).

Old-growth rainforests of Vancouver Island, 1950s and 2014
Source: *Focus Magazine* (February 2015)

Harmful ecological impacts arising from corporate industrial forestry on Vancouver Island intensified following the repeal of the Forest Practices Code of British Columbia Act in the early 2000s. This legislation, which had been in force briefly following the Clayoquot Sound conflicts of the 1990s, sought to curb the worst excesses of unbridled industrial exploitation of the island's fragile forest lands. The Code prescribed forest practices on forest companies for the first time in British Columbia. The legislation was derided by industry as an unreasonable infringement on economic competitiveness, while conservation groups claimed the Code was too weak to provide the degree of protection necessary to manage and conserve biological diversity. [6]

With the repeal of the Code and replacement with the Forest and Range Practices Act in 2004, the delegation of administrative responsibility and control from the Ministry of Forests to the corporations, and reductions in Provincial government budgetary resources toward enforcement of forestry regulations, Vancouver Island's forests were left exposed to even greater short- and long-term ecological harm. As the Forest Practices Board noted in 2015, Forest Stewardship Plans submitted by licence-holders on Crown forest lands have "significant problems with measurability or

[6] Marchak, Patricia and S. Denise Allen. 2003. *BC Forests 2003: An Appraisal of Government Policies*. David Suzuki Foundation), p. 10-11.

verifiability" and the culture surrounding preparation and approval of the plans is "unacceptable." The Board noted that the Province is currently failing to provide the public with an opportunity to review and provide meaningful comment on the harvesting and road-building plans of private industry on publicly-owned forest lands.[7]

Remnant old-growth rainforests in the Walbran Valley, East Creek and Edinburgh Mountain are at imminent risk of deforestation, while landscape units across the island are falling below the 30% threshold of productive old-growth that is deemed necessary to safeguard biodiversity and protect species at risk.[8] Karst formations are also threatened by current forest practices.

Old-growth rainforest and karst formation, Central Walbran Valley

[7] BC Forest Practices Board. 2015. *Forest Stewardship Plans: Are They Meeting Expectations?*

[8] Wieting, Jens. 2016. *Vancouver Island and South Coast Rainforest at High Ecological Risk*. Sierra Club BC.

Beyond considerations of biological diversity and protection of ecosystems, the old-growth and young-growth forests of Vancouver Island have tremendous value from the standpoint of carbon sequestration in a world where climate change threatens to undermine the capacity of human beings and other species to survive on this planet. According to the BC Ministry of Forests, some of the province's forests "contain the most carbon storage per hectare of any forest type in the world." A 100-year-old coastal Sitka spruce stores approximately 1.84 tonnes of carbon (compared to an interior spruce with 0.47 tonnes). Coastal redcedar and Douglas-fir of the same age store 1.47 and 1.32 tonnes of carbon, respectively.[9]

The Sierra Club of BC estimates that unprotected old-growth rainforests on Vancouver Island and the south coast store approximately 225 million tonnes of carbon, equivalent to 13 times BC's total annual carbon-dioxide emissions. The Sierra Club offers a clear prescription for changes in forestry in the context of climate change: "Increased conservation of the remaining old-growth temperate rainforest, phasing out logging of old-growth and transitioning logging fully to second growth is urgent from a climate adaptation and mitigation perspective."[10] Carbon storage is also negatively impacted by the current unsustainable approach to the management of second-growth forests on Vancouver Island. These forests are being logged in rotations as short as 40 years, at accelerated rates well before their timber asset value and non-timber values have been optimized (closer to 100 years).

1.3 Watersheds at Risk

Management of Vancouver Island's forests also presents opportunities and risks from the standpoint of watershed protection. Controversy over logging within Greater Victoria's drinking watershed in the 1990s prompted Provincial legislative action that halted logging for revenue purposes, created a substantial wilderness conservation area and reformed governance into a Regional Water Supply Commission with representation from all

[9] Kathryn Palmer Gordon, "Plundering the Carbon Sink," *Focus Magazine* (February 2015); BC Ministry of Forests, Lands and Natural Resource Operations, *BC Forest Carbon Offset Investment Opportunities* (2012).
[10] Jens Wieting, (2013), *Carbon at Risk: BC's Unprotected Old-Growth Rainforest*.

local governments relying on the water supply. Presently, more than 20,000 hectares of land are protected under public ownership, operation and control in the Greater Victoria Water Supply Area.

In contrast, drinking watersheds for communities including the City of Nanaimo and City of Port Alberni are owned or managed by private logging companies. While informal agreements seek to mitigate impacts of industrial activity on drinking water quality, issues arise on an ongoing basis, revealing the fundamentally divergent interests of the parties: private logging companies have a mandate to generate short-term profit for share-holders from the exploitation of the forest resources on these lands; local governments have a duty to safeguard the health and wellbeing of their residents through the provision of safe and clean drinking water. Companies' performance in watersheds is judged relative to operations outside watersheds, rather than to the higher standards required to protect drinking water quality.

Log exports from Vancouver Island
Source: Photograph by T.J. Watt

1.4 Canada's Lack of Competitiveness in Global Markets

Alongside the risks of corporate industrial logging to ecosystems and watersheds, Vancouver Island's private forest corporations are characterized by weak economic performance and

a lack of competitiveness and innovation in global markets, relying on the export of raw logs and lumber rather than value-added products, which is a hallmark of success in other jurisdictions.

This lacklustre outlook and economic performance is highlighted by Andrea Mandel-Campbell, who suggests that Canadian logging companies have been "content to hew two-by-fours" rather than produce value-added products. She cites Alberta's former assistant deputy minister of economic development: "Americans phone us and say 'We need wood' and we sell it to them, and they sell it back to us as a cabinet."[11]

Reliance on commodity exports over value-added production has generated meagre returns for communities, governments and investors compared with the forest industries in other jurisdictions, as Canada squanders its natural advantage in global markets:

> *"It shouldn't be this way. Canada is home to 10 percent of the world's forestry resources and is the leading exporter of wood products; it is responsible for 21 percent of the global trade. Yet its companies are lightweights by international standards, with not one among the world's top twenty. Not only are these companies among the least global of their peers – they are confined to regions within Canada – but their mills and machines are among the most antiquated and unproductive on the planet. They churn out commodity goods like two-by-fours, pulp and newsprint instead of producing high value added products like tissue paper and engineered wood products. As for Canadian manufactures of printing presses and paper machines, well, there aren't any."*[12]

British Columbia's forest industry is particularly weak from the standpoint of value-added production. BC forest products accounted for 46% of total Canadian exports of softwood lumber to the United States in 2001, 83% of cedar shakes and shingles, and 61% of plywood, but the province's share of value-added products exported to the United States was a meagre 4%.[13]

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[11] Andrea Mandel-Campbell, *Why Mexicans don't Drink Molson* (Vancouver: Douglas and McIntyre, 2007), p. 52-53.
[12] Mandel-Campbell, *Why Mexicans don't Drink Molson*, p. 115.
[13] "A forest-products powerhouse," *Vancouver Sun*, June 21, 2003.

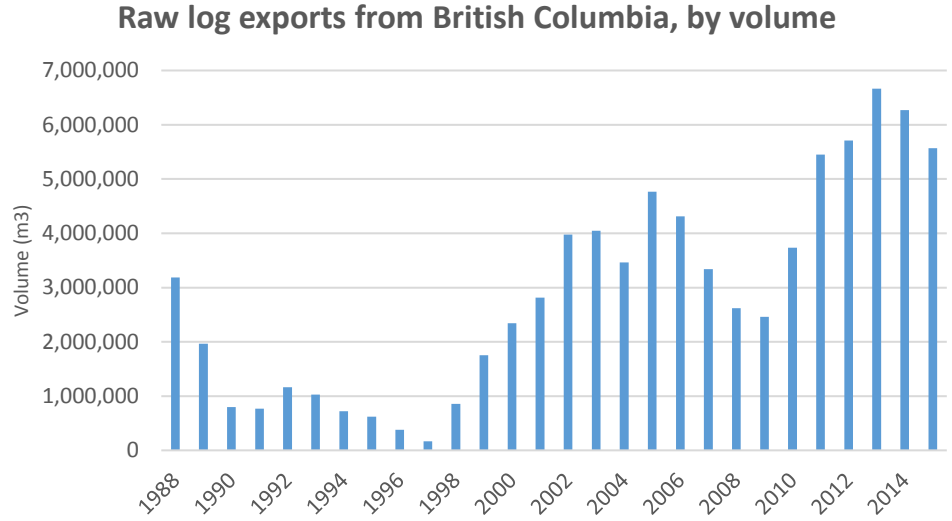
The deficiency of the Canadian forestry sector in the global arena is mirrored by the underdeveloped nature of forestry education and the forestry profession in the country. The University of British Columbia's Faculty of Forestry is lauded (and funded in part) by private industry, but widely perceived as lacking in innovation among international professionals in the field: "The University of British Columbia didn't open its centre for advanced wood processing until 1996, marking – after centuries of logging – the country's first and arguably only hands-on bachelor's-level program focused on furniture and wood manufacturing."[14]

Corporate industrial logging on Vancouver Island, c. 1990s
Source: Sierra Club of BC

The absence of a strong value-added sector has left Vancouver Island's forest industry vulnerable to changes in global markets. For decades, the industry grew lazy as the United States provided a reliable market for Canadian forest products. Globalization of trade in forest products (like globalization in other commodities) saw increased competition from Scandinavian, Japanese, Russian, Eastern European, South American and Southeast-Asian companies, at the same time that the United States faced pressure from domestic producers to curb Canadian imports.

[14] Mandel-Campbell, *Why Mexicans don't Drink Molson*, p. 284.

As a result, the imposition of tariffs on softwood lumber exports to the United States in the early 2000s dealt an existential blow to the forest industry on Vancouver Island and elsewhere in Canada.



Source: BC Stats, *Log Export* data

Rather than increase competitiveness through innovation and value-added production, forest corporations on Vancouver Island and elsewhere in British Columbia have intensified their reliance on commodity sales, with raw log exports increasing to record levels. The industry responded to American tariffs by pursuing *market diversification* rather than *product diversification*.[15] This reliance on low-cost, high-volume raw log and lumber exports fails to optimize the employment, revenue and conservation potential of Vancouver Island's forests, as Michael M'Gonigle and Ben Parfitt noted in *Forestopia*.[16] Almost 97% of raw log exports from Canada originate from BC forests.[17] In 2013, nearly one third of all timber harvested on the BC coast was exported to foreign markets, rather than manufactured into value-added products.[18]

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[15] Parfitt, Ben. 2011. *Making the Case for a Carbon Focus and Green Jobs in BC's Forest Industry.* Vancouver: Canadian Centre for Policy Alternatives; Parfitt, Ben. 2011. "BC forestry missing out on green job potential." *Georgia Straight* (Vancouver).

[16] M'Gonigle, Michael and Ben Parfitt. 1994. *Forestopia: A Practical Guide to the New Forest Economy*. Madeira Park, BC: Harbour.

[17] Coste, Torrance. 2015. "Raw Log Exports," *The Tyee* (Vancouver); Harry Nelson and Ngaio Hotte. 2016. "Canadian Forestry Sector Needs Rebuilding," *Vancouver Sun*; Bill Dumont and Don Wright. 2006. *Generating More Wealth from British Columbia's Timber: A Review of British Columbia's Log Export Policies.*

[18] BC Ministry of Forests, Lands and Natural Resource Operations. 2015. *Major Primary Timber Processing Facilities in British Columbia 2013*, p. 5.

Urban sprawl on former Forest Land Reserve lands sold by Western Forest Products for residential real estate in Langford Creative Commons

1.5 Out of the Woods, Into Real Estate

Vancouver Island's private forestry sector has also responded to economic weakness by turning to the private real-estate market, seeking to liquidate portions of its vast land-holdings for quick profit. The provincial government sought to reduce the incentive to sell-off private forest lands in the 1990s, creating a Forest Land Reserve as one of the recommendations of the Vancouver Island Land Use Plan. Landowners received the benefit of reduced taxation on managed forest land. However, the Forest Land Reserve Act was repealed in 2004 (replaced by the Private Managed Forest Land Act) and conversion of forest land to private real estate intensified.

Proposals currently underway in Ladysmith, Nanaimo, Coombs and Campbell River by TimberWest and its real-estate arm, Couverdon Real Estate, seek to covert 800 hectares of private forest land in the former E & N Land Grant into residential, commercial and industrial real estate.[19] Earlier efforts by Western Forest Products to divest landholdings in the Juan de Fuca area on the island's southwestern coast provoked a major public backlash,

[19] Bennett, N. 2015. "Out of the Woods and Into Real Estate." *Business in Vancouver*.

prompting the regional government to purchase five kilometres of waterfront land and upland area for $19-million for park purposes.[20]

1.6 The State of the Island's Forests Today

Today, the forest industry in British Columbia employs half the number of workers who were employed in the industry a quarter of a century ago and accounts for roughly half the proportion of the province's Gross Domestic Product.[21] Between 1990 and 2011, the number of medium and large sawmills in the province declined from 131 to 77 (41% decline); veneer from 20 to 11 mills (45% decline); pulp mills declined (1991 to 2009) from 24 to 18 (25% decline); and paper mills declined (1991 to 2009) from 12 to 6 (50% decline).[22] On Vancouver Island and the coastal region, fewer than 10,000 workers were employed in forestry and logging in 2015.[23] "British Columbia has lost over half of its value added wood processors in the last dozen years," the Independent Wood Processors Association notes.[24]

At the same time that the forest sector of Vancouver Island and British Columbia have experienced a substantial decline in jobs and economic output, the forests themselves continue to be degraded in the transition away from a high quality timber supply toward increasing export of raw logs, a symptom of an increasingly weak forest industry. Vancouver Island communities face the negative impacts of declining biological diversity and threatened water quality, while realizing fewer economic and social benefits from the liquidation of the forests. As BC's Auditor General noted in a scathing report, the Ministry of Forests lacks clearly defined objectives and "existing management practices are insufficient to offset a trend toward future forests having a lower timber supply and less species diversity in some areas.[25]

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[20] Capital Region District. 2012. "CRD Moves Forward on Jordan River Parkland."
[21] BC Lumber Trade Council et al. 2015. *BC Forest Industry Economic Impact Study.*
[22] Travers, Ray. 2014. "Putting First Things First in BC's Public Forests." *BC Forest Professional*; see also BC Ministry of Forests, Lands and Natural Resource Operations. 2015. *Major Primary Timber Processing Facilities in British Columbia 2013*.
[23] Statistics Canada. 2015. *Labour Force Survey* data.
[24] Independent Wood Processors Association, "A New Softwood Lumber Agreement: Is it the end of Value Added in BC or an Opportunity?" n.d. (2016) <www.iwpabc.com>.
[25] BC Auditor General. 2012. *An Audit of the MFLNRO Management of Timber*.

Fortunately, attractive alternatives exist.

Echo Lake near Campbell River on Vancouver Island
Source: Photograph by T.J. Watt

Forest managed for timber in Sweden
Source: file photo

Timber harvesting in Sweden
Source: file photo

2. Case Studies: Sustainable Forestry in Europe and North America

2.1 Scandinavia's Sustainable Forests

In contrast with the lacklustre economic performance of private forest corporations on Vancouver Island, there are examples of strong and more ecologically sustainable forest industries in Scandinavia and other jurisdictions in Europe, North America and around the globe.

Forest operations in the Nordic countries of Sweden and Finland in northern Europe are widely recognized for their embrace of innovation in silvicultural practices, producing a higher quality and value of marketable wood, with an increased emphasis on conserving and regenerating the resource for future generations and setting aside lands for ecological purposes. The Nordic forest industries are also recognized for their attention to value-added production, expanding employment and economic benefits of forest resources for people and communities in these countries.

Under Sweden's Forestry Act of 1993, biological diversity and timber production are given equal importance under the law, with high standards enforced by the Swedish Forest Agency. This distinguishes the Swedish legislation from British Columbia forest policy, which asserts that protecting biological diversity on the timber harvesting land base cannot reduce the Allowable Annual Cut by more than about one percent (a retrograde policy that accelerates liquidation for low-value lumber and raw log exports.)

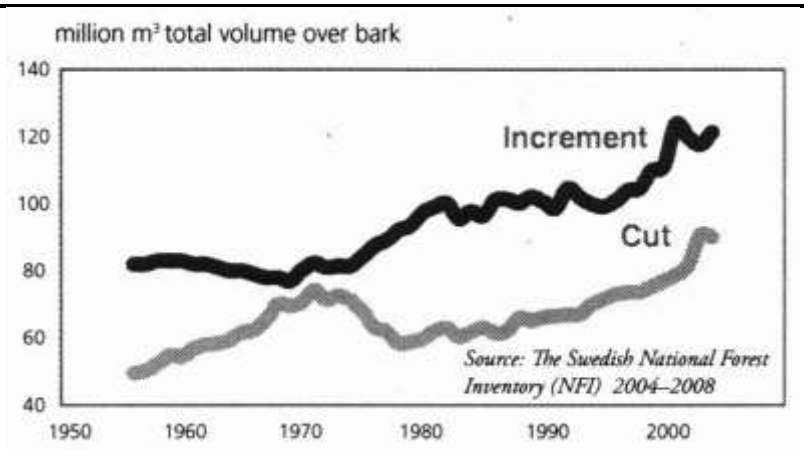
Sweden made the transition to sustainable forestry after the country's old-growth forests had been eliminated. As a result, Sweden has no old growth in its spruce and pine forests today. However, the value of timber production in Sweden is now more than two times BC, while Sweden and BC have the same commercial forest area, at 22-million hectares. Sweden has increased the volume of standing timber by 70% since 1923, while BC has witnessed decline in the volume and value of standing timber.[26]

Comparing the Performance of the Forest Sector in Sweden and British Columbia, 2009

	Sweden	BC	Ratio (Sweden/BC)
Commercial Forest Land (Ha)	22,335,000	22,000,000	1.02
Total Volume Logged (M^3)	65,100,000	48,793,000	1.33
Value of Production ($Cdn)	29,213,749	13,126,093	2.23
Direct Employment	85,000	46,800	1.82
Log Exports (M^3)	2,500,000	2,702,000	0.93
Log Imports (M^3)	5,800,000	34,036	170.41
Annual Growth Rate (M^3/Ha/Yr)	5.5	3.3	1.67
Annual Growth/Year Million (M^3)	122.7	72.6	1.69
Percent Private Forest Land	81	3	27.0

Sources: Swedish Forestry Agency; Food and Agricultural Organization (UN); Statistics Canada; BC Stats; BC Ministry of Forests, Land and Natural Resource Operations.

Annual cut and annual forest increment (new growth) in Sweden



Source: Swedish Forest Agency

[26] Royal Swedish Academy of Agriculture and Forestry. 2009. *The Swedish Forestry Model.* Stockholm.

Denmark, with virtually no marketable timber resources, has emerged as a world-leader in value-added wood products.
Source: Dana Tomić Hughes

2.2 Value-Added Production in Denmark and Germany

Demonstrating the drive for innovation in Scandinavia's forest products sector, Denmark, with virtually no economically viable forest resources, has developed a sizeable value-added wood products sector. Germany has also developed a strong value-added wood products sector, particularly in wood-based panels.[27]

The Finnish engineering firm Jaakko Pöyry explains the benefit of interconnectedness and integration within the German and Danish wood products sectors:

> *"For high value added regions, notably Germany and Denmark, the interdependency between value added manufacturers (millwork, furniture) and local suppliers is strong. This is particularly so with respect to adapting and focusing products and services to meet the specific*

[27] Jaakko Pöyry. 2001. *Assessment of the Status and Future Opportunities of Ontario's Solid Wood Value Added Sector* (Ontario Living Legacy Trust), p. 6.

> *needs of manufacturer customers, well developed local component manufacturing and subcontracting, as well as a high degree of specialization."*[28]

In contrast, resource-based regions such as British Columbia have relied on "low-cost raw materials" to be competitive, "but there is limited flexibility to adapt to the needs of value added manufacturers" and limited resilience to changing global prices and markets for raw commodities.[29] Under the current tenure system, value-added producers have difficulty accessing suitable wood.

Jaakko Pöyry emphasizes the importance of integration for revitalizing Canada's forest product sector: "It is critical that the [Provincial government], the primary producers and value added manufacturers embrace the concepts of value chain (from resource to end use) and clustering if … wood products are to thrive in global markets and compete effectively against well-established producers from other regions."[30]

2.3 Moves Toward Sustainable Forestry in North America

Sustainable silvicultural practices are also being pursued in North America. In a report prepared for the Province of Ontario's *Living Legacy Trust*, Jaakko Pöyry provided recommendations to encourage value-added production in the province's forest sector. The report made a distinction between *commodity products* and *value-added products.* Commodity products were defined as products traded on the open market with relatively little differentiation made by buyers between products. Value-Added Products were defined as those that were not traded on the open market and were normally sold to end users rather than intermediaries.[31]

For example, Ontario's forest products sector produces a substantially higher proportion of value-added products in comparison with the British Columbia industry. Value-added

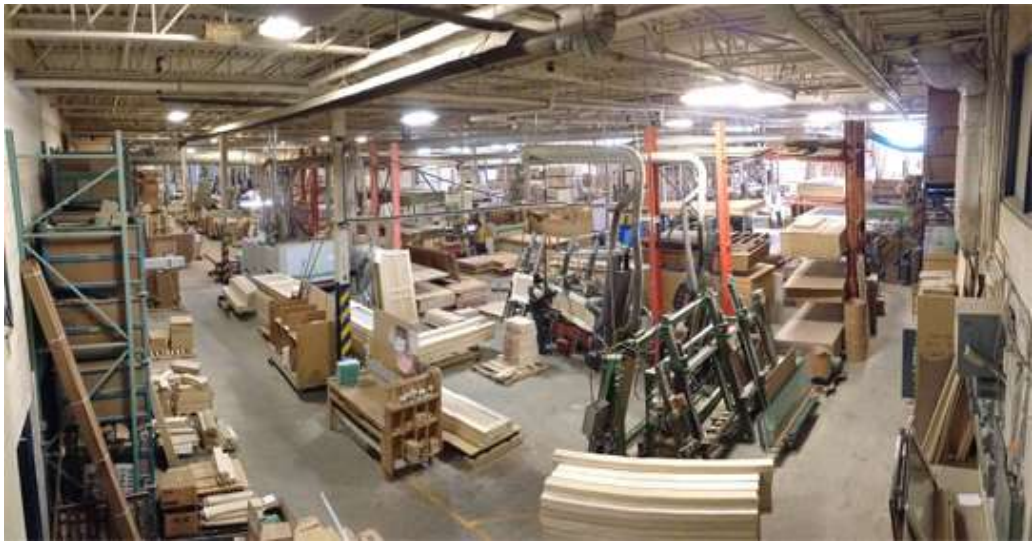
[28] Jaakko Pöyry (2001), p. 33.
[29] Jaakko Pöyry (2001), p. 35.
[30] Jaakko Pöyry (2001), p. 41.
[31] Jaakko Pöyry (2001), p. 3.

products (three-quarters of which were exported, primarily to the United States), accounted for 60% of the total value of forest products shipments from Ontario in 2003. This compares with less than 9% in British Columbia.[32] Each cubic metre of wood harvested in Ontario generates $893 for the provincial economy, compared with $233 in British Columbia. A full-time, year-round job in Ontario requires 292 cubic metres of wood, compared with 1,312 in BC (equivalent to nearly 33 logging trucks).[33]

Value-added production as percentage of total wood products shipments, by jurisdiction, 2003

Denmark	91%
Germany	87%
US Great Lake States	79%
Ontario	60%
Nordic Countries	45%
Québec	42%
Alberta	30%
British Columbia	9%

Source: Jaakko Pöyry. 2001. *Assessment of the Status and Future Opportunities of Ontario's Solid Wood Value Added Sector* (Ontario Living Legacy Trust), p. 20.



Ontario's value-added wood products sector dwarfs British Columbia's
Source: Traditional Door Design & Millwork (Toronto)

[32] Jaakko Pöyry (2001), p. 15.
[33] Coste, Torrance. 2015. "Raw Log Exports: A Made-in-BC Problem that's Only Getting Worse," *The Tyee* (Vancouver).

Moves toward more sustainable forestry practices can also be found within the Pacific Northwest of North America. In a 1991 report, researchers with the Forest Service of the United States Department of Agriculture noted that a higher standard of silvicultural practices was necessary if the forest industry of the Pacific Northwest was to successfully transition from reliance on old-growth unmanaged forests to younger, managed forests. The industry had benefited since its inception from the structural properties of logs produced from old-growth Douglas-fir trees, which were sought after in global markets for their durability and high-quality wood in lumber and panels.

Depletion of the old-growth forest resources of the Pacific Northwest mandated major change in the industry – either decline into oblivion, or a reorientation toward production in well-managed second-growth forests. Without a high-quality timber supply there is no foundation for increasing the value, quality and productivity of the forest sector. The US Forest Service researchers urged managers of forests to move away from a simplistic calculation based on total volume of lumber on a parcel of land, toward optimizing the quality and value of wood in each tree, deploying a range of techniques in the management of forests, including initial spacing, commercial thinning and rotation age.[34] These techniques reflected an attempt to apply Scandinavia's more sustainable silvicultural practices to the forest industry of the Pacific Northwest. As M'Gonigle and Parfitt noted in *Forestopia*, commercial thinning has the potential to substantially increase employment.[35]

Sustainable silvicultural practices are also being implemented in the interior of the Pacific Northwest by the Confederated Tribes of the Colville Reservation in northeastern Washington State, applying intensive management practices to more than 300,000 hectares of forest land that provide more than half of the tribal government's annual revenue. As the tribe's current Forest Management Plan (2015) notes:

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[34] Fahey, Thomas D., James M. Cahill, Thomas A. Snellgrove, and Linda S. Heath. 1991. *Lumber and Veneer Recovery from Intensively Managed Young-Growth Douglas-Fir*. US Forest Service.

[35] M'Gonigle, Michael and Ben Parfitt. 1994. *Forestopia: A Practical Guide to the New Forest Economy*. Madeira Park, BC: Harbour.

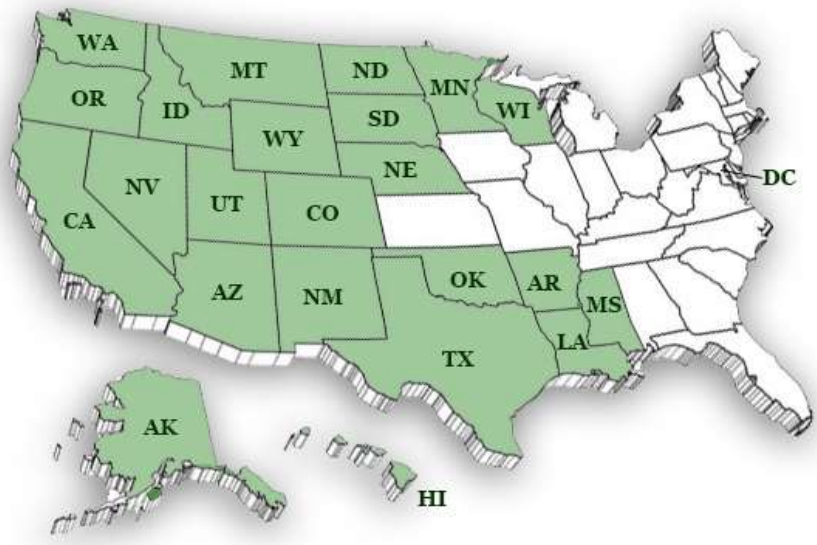
> *"The management approach of leaving large trees and habitat patches has been the primary silvicultural strategy for regenerating the forest for the last 15 years. This strategy reduced the available harvest volume in order to balance the economic needs of the tribes' forest products industry and maintain a visually appealing landscape that would meet the Desired Future Conditions developed with input from the Tribal Membership for the IRMP [Integrated Resource Management Plan]. The Forestry Program spent the last 15 years trying to implement these relatively new ideas on a large scale across the forested landscape for the benefit of the Tribe."*[36]

The Colville Tribe has seen a steady increase in the total volume of standing timber on tribal lands since the mid-1980s, even with mortality from mountain pine beetle and other factors, since "the harvest level has been less than the [new] growth."[37]

The Colville Tribe in Washington State has steadily increased the volume of wood on 300,000 hectares of forest land through sustainable silvicultural practices.
Source: *Colville Tribal Tribune*

[36] Colville Indian Reservation. 2015. *Forest Management Plan*. p. 16.
[37] Colville Indian Reservation. 2015. *Forest Management Plan*. p. 18.

High standards of forest management, and corresponding social and economic returns, are also embraced by the Menominee Tribe in Wisconsin. For more than a century, the Menominee have developed sustainable-yield practices on nearly 100,000 hectares of tribal-owned forest lands in northeastern Wisconsin, increasing the volume of standing timber from 1.2-billion to 1.9-billion board feet. The tribe uses a Continuous Forest Inventory (CFI) system to monitor the growth and health of the forest and uses a harvest control based on silvicultural prescriptions, rather than predicted growth estimates. Approximately 300 tribal members and non-members are employed in administration, planning, harvesting, replanting and processing, including a tribe-owned mill. Goals for non-timber resources are incorporated into management prescriptions, including cultural resources, diversity, wildlife habitat, water quality and aesthetics. The commitment to sustainability is recognized in Forest Stewardship Council (FSC) certification of Menominee timber and forest products.[38]



The State Trust Lands apply high standards of forest stewardship to 5% of the land base of the 23 western states in the USA.
Source: Western States Land Commissioners Association

A final example of more sustainable forestry in the United States can be found in the State Trust Lands, which account for 46-million hectares of land in 23 Western states (about 5% of the land

[38] Menominee Tribal Enterprises < http://mtewood.com/ >.

in these states). The trust lands were granted by the US Congress to states upon entering the Union, to support public services, notably education. In the basic model for State Trust Land management, a Board of Commissioners (elected and appointed) acts as Trustees to oversee state land operations. Trustees are obligated to preserve the productive capacity of Trust lands in perpetuity. This principle places Trust land management on a different foundation that most other public lands in the United States, such as the federal US National Forests, and helps optimize social and economic outcomes over the long term.

State Trusts provide funding to their beneficiaries from permanent funds and annual revenues. In the 1990s, State Trust Lands distributed annually about $3-billion USD from permanent funds, and about $1.5-billion USD annually from land management revenues. Resources managed include forestry, cropland and grazing, mining, oil and gas. Timber revenues are significant in five states: Idaho, Minnesota, Montana, Oregon and Washington.[39]

2.4 Fair Access to Timber and the Vernon Log Market

Closer to home, British Columbia experimented with more sustainable models of forestry in the 1990s, including the Vernon Log Market, with the objective of developing alternative approaches to silviculture, thinning and the sale of logs, and evaluating the financial viability of these approaches. The innovative Vernon Log Market was administered by the Vernon Forest District, with a volume of 53,000 cubic metres of timber derived from a 5% volume take-back when Fletcher Challenge sold harvesting rights to Riverside Forest Products. (The BC government had mandated that whenever forest harvesting rights were sold from one company to another, there would be a reduction or take back of 5% of the volume, to create access to timber for smaller producers.)[40]

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[39] O'Laughlin, Jay. 2000. "Trust Concepts Applied to the Federal Public Lands: A New Approach for Sustaining Human Communities and Biological Diversity." Paper presented to Federal Lands Task Force Working Group; Culp, P.W., et al. 2005. *Trust Lands in the American West: A legal Overview and Policy Assessment*. Sonoran Institute. See also Western States Land Commissioners Association < http://www.glo.texas.gov/wslca/ >.

[40] See British Columbia. Shwindt, Richard. 1993. *Report of the Royal Commission of Inquiry into Compensation for the Taking of Resource Interests*.

The Vernon Log Market, an experiment initiated by the BC government in 1993, provided fair and competitive access to timber
Source: Peter Donovan

In the Vernon Forest District, sixteen blocks were harvested, with layout, cruising, pre-harvest silviculture prescription (PHSP) preparation and road development contracted to forestry consultants. Harvesting contracts were advertised and awarded to the lowest bidder. The logs were transported to a log yard in Lumby (later near Vernon), where they were scaled, graded and sorted into 23 sorts (types and grades of logs). The log yard was managed by a contractor, and there were two contract scalers. Ministry workers were also involved in harvesting and log yard operations. Every Thursday between August and March, the logs in the yard were auctioned in lots to the highest bidders on a sealed tender basis.

In a review commissioned by the province two years into the experiment, Price Waterhouse found that the Vernon Log Market had met and exceeded its objectives. "All those contacted felt that the log yard was operated both fairly and efficiently," the review noted. The Log Market expanded opportunities for small loggers and value-added producers, improved access to timber supply, and did so in a fair, efficient and financially viable way that generated $2-million in profit for the regional operation and $1-million in stumpage fees for the province.[41]

[41] Fred Gale. 1999. "Ecoforestry Bound: How International Trade Agreements Constrain the Adoption of an Ecosystem-Based Approach to Forest Management," in Chris Tollefson, ed. 1999. *The Wealth of Forests: Markets, Regulation, and Sustainable*

2.5 Windows of Possibility: Community Forests on Vancouver Island

While most of Vancouver Island's land and forests are controlled by private corporations – either through fee simple title on the E & N lands or Tree Farm Licences on public forest lands – isolated pockets of forest lands are currently under democratic operation and control. These include the North Cowichan Municipal Forest, consisting of 5,344 hectares of land owned and operated by the District of North Cowichan since 1946. On provincial land carved out of corporate Tree Farm Licences and now governed by Community Forest Agreements, there are the Alberni Valley Community Forest (consisting of 6,378 hectares of land managed since 2009 by the City of Port Alberni through an arm's length society) and the newly created Barkley Community Forest (operated by the District of Ucluelet and Toquaht First Nation to manage 6,700 hectares of Provincial forest land near Barkley Sound).[42]

MaMook Natural Resources Ltd., jointly owned and operated by several Nuu-chah-nulth Nations, manages 49,300 hectares of forest land in and around Clayoqout Sound.
Source: Iisaak Forest Resources

Forestry (Vancouver: UBC Press); Paul Mitchell Banks. 1999. "Logging As If Communities Mattered." *SpruceRoots Magazine*.

[42] "Community forest finally realized in Ucluelet," *Tofino-Ucluelet Westerly News*, July 14, 2015.

Reflecting the ongoing role of First Nations in management of forest lands on Vancouver Island, several Nuu-chah-nulth Nations jointly manage 49,300 hectares of land in and around Clayoqout Sound through their forestry arm, MaMook Natural Resources Ltd., which acquired harvesting rights for Tree Farm Licence 54 from Weyerhaeuser Ltd. after years of land use conflict followed by negotiations with the Crown and industry.[43] On Cortes Island, the Klahoose Nation manages 3,900 hectares of Crown forest land in partnership with the Cortes Community Forest Co-operative.

Community forests struggle to be economically viable, given the small proportion of the land base under their control. In 2015, about 50 community forests accounted for 2% of BC's annual timber harvest and occupied 2% of public forest land, with the remainder largely devoted to private forest tenures on public land, which grant corporations near monopoly control of the local forest economy.[44] The City of Port Alberni noted in a resolution to the Union of British Columbia Municipalities that: "BC's community forests are struggling to secure a viable land base to involve communities in the local forestry and provide local jobs and economic and environmental benefits to forest communities." The meagre quantity of land currently under democratic management prevents community forest operators from applying a robust ecological lens to the protection of water supply areas and ecosystems.[45] Some community forests on the island, such as the Cowichan Lake Community Forest Co-operative, lack access to timber supply, with a volume-based licence expiring in 2015.[46]

Community-based forest operations elsewhere in British Columbia have demonstrated greater economic viability and improved social outcomes where a sufficient land base is available. A leading example is the Revelstoke Community Forest, established in 1993 when the City of Revelstoke purchased the rights to 120,000

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[43] BC Forest Practices Board, *Audit of Forest Planning and Practices: MaMook Natural Resources, Tree Farm Licence 54* (October 2012).
[44] See BC Community Forest Association < www.bccfa.ca >; BC Ministry of Forests. 2012. *Timber Tenures in British Columbia*.
[45] See Union of British Columbia Municipalities, "Community Forest Land Base," Resolution B105, 2010 < www.ubcm.ca >; also Forsite (2005), *Port Alberni Community Forest Timber Supply Analysis Report*.
[46] "Cowichan Co-op Joins Pacheedaht in Seeking Community Forest Agreement." 2014. *Lake Cowichan Gazette*. September 24.

hectares of Crown land in Tree Farm Licence 56 from Westar Timber "to regain some control over the local forest resources for social and economic reasons, but also to improve the standard of forest management and environmental protection in the area."[47] Another example of a successful community forest, with a smaller land base, is the Mission Municipal Forest, consisting of 10,000 hectares of municipal and provincial land in Tree Farm Licence 26 operated by the District of Mission Forestry Department. Since 2009, the Cheakamus Community Forest has managed 30,000 hectares of Provincial forest land – a joint venture of the Resort Municipality of Whistler and the Lil'wat and Squamish Nations.

Access to forest land is only part of the equation; to achieve genuine sustainability, community forests require a change in management philosophy. As Cheri Burda and Michael M'Gonigle noted in a study of the Revelstoke Community Forest, a transformation in governance and management is necessary, away from volume-based production and old-growth logging toward "eco-system based plans for community forestry."[48]

Merv Wilkinson and the Wildwood Ecoforest near Nanaimo
Source: file photo

[47] Revelstoke Community Forest Corporation, (n.d.). "Overview." < rcfc.bc.ca >
[48] Burda, Cheri and Michael M'Gonigle. 1996. "Tree Farm… or Community Forest?" *Making Waves*, 7, no. 4.

For this ecological approach, we can look to an innovative and long-standing example of the application of Scandinavian silvicultural practices in the temperate forests of Vancouver Island: the Wildwood Ecoforest near Nanaimo. Beginning in 1938, the site's founder Merv Wilkinson worked under the guidance of Dr. Paul Boving to introduce Scandinavian forest management philosophies and practices to a 32 hectare woodlot. Wilkinson combined an emphasis on "sustainable yield" (harvesting less than the annual rate of growth of the forest) with a single-tree selection method, developing the approach that he described as "sustainable selective harvesting." In 2001, the Ecoforestry Institute Society assumed management of the Wildwood site, evolving the management philosophy from an economic one based on sustaining the volume of standing wood over time, to an ecological perspective with a goal "to manage for ecological function first and foremost and see how humans can fit in without diminishing the ecological functioning of the forest."[49]

2.6 Tourism and Vancouver Island's Forests

The economic potential of Vancouver Island's forests extends beyond the harvesting, processing and sale of wood and wood products. Substantial benefits are realized from standing trees, with conservation of the old-growth rainforests of Vancouver Island having significant value from the standpoint of tourism. As the City of Victoria recently informed British Columbia's Minister of Forests:

> *"From an economic standpoint, the old-growth forests of the Walbran Valley represent a significant financial value to Vancouver Island. In Victoria alone tourism is worth close to 2 billion dollars annually. The proximity of rare ancient forests, and associated recreational activities such as temperate rainforest hiking, draw visitors to our region. New logging activities in our previously untouched forests endangers the public's perception of this unique advantage to visiting Victoria and Vancouver Island."*[50]

[49] Ecoforestry Institute Society. "Wildwood." < www.ecoforestry.ca >
[50] City of Victoria letter to BC Minister of Forests, August 25, 2015.

Resource-dependent communities such as Port Renfrew and Ucluelet are reaping the rewards of "Big Tree Tourism" and global interest in the ecological heritage and uniqueness of the island's old-growth rainforests.[51] The Discovery Islands Marine Tourism Group recently estimated that eco-tourism in the Johnstone Strait and northern Salish Sea generates $45-milion annually and employs 1,200 people.[52] In May 2016, the BC Chamber of Commerce recognized the long-term economic value of standing old-growth rainforest, endorsing a resolution from the Port Renfrew Chamber of Commerce calling on the Province of British Columbia to increase protection for the island's old-growth forests.[53]

Communities including Port Renfrew, Lake Cowichan, Port Alberni, Ucluelet and Tofino are recognizing the benefits of "Big Tree Tourism" and the economic value of standing old-growth rainforest.
Source: T.J. Watt

[51] "Overwhelming Beauty," *Globe and Mail*, April 12, 2016; "Chamber urges saving local old growth forests," *Sooke News Mirror*, December 16, 2015.
[52] "Why does logging trump tourism in the Discovery Islands and Desolation Sound?" *Vancouver Observer,* Aug. 19, 2013.
[53] "BC Chamber of Commerce hugs old-growth trees," *Times Colonist*, 1 June 2016.

Coastal temperate rainforest on Vancouver Island
Source: Ancient Forest Alliance

3. The Solution: A Value-Based Silvicultural Model with Democratic Land Management for Vancouver Island's Forests

The forests and communities of Vancouver Island are at a crossroads. One path aims to remain in business until all the high quality wood in old-growth rainforests and second-growth forests has been logged and manufactured into commodity exports, resulting in increased mechanization, fewer jobs, vulnerable communities, declining government and industry revenues, the loss of ecosystems and threats to drinking watersheds.

The other path embraces the model of sustainable silviculture and democratic land management – incrementally increasing the supply of high quality wood to optimize economic and social benefits of forests for current and future generations – while providing a legal foundation in an amended Forest Act where timber production and biological diversity are equal under the law, introducing a higher standard of protection for ecosystems and watersheds.

This policy statement and its lead sponsor, Island Forest Futures, advocates strongly for Vancouver Islanders to pursue the sustainable course.

Recommendations for a Value-Based Silvicultural Model for Vancouver Island

To optimize the value, quality and productivity of Vancouver Island's forest resources and create opportunities for increased employment, public revenues and conservation, a Value-Based Silvicultural Model is recommended.

3.1 Values

This model responds to the following considerations:

(a) What values should underpin land management decisions?
(b) What areas are appropriate for forestry and what areas should be conserved for other purposes?
(c) How can Indigenous rights and title be incorporated into land management decisions?
(d) Who should benefit from the management of Vancouver Island's forests?
(e) What standards should be applied to the management of the island's forests?
(f) What time period should govern management decisions?

The model embraces an ecological definition of sustainability, balancing resource productivity with ecosystem maintenance in order to harness the potential and improve productivity of the island's managed forest, rather than incrementally degrading it.[54]

US Forest Service researchers Andrew Curtis and Robert Carey propose "biodiversity management" of second-growth forests in the Pacific Northwest, an ecological approach to reduce conflict between different stakeholders and improve long-term value, applying the principle of conservation of biological diversity through silvicultural practices including extended rotation of stands (minimum of 80 years). Curtis and Carey suggest that the economic cost of "biodiversity management" and extended rotations – notably, the reduction in present net value – is offset by the increased value of high-quality trees and increased long-term productivity of forest lands, as well as enhanced non-timber values, including health of plant and animal species and restoration of landscape function.[55] Longer rotations also increase carbon storage, a key advantage in the context of climate change.

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[54] See Bailey, Robert G. 2009. *Ecosystem Geography: From Ecoregions to Sites.* Second Edition. New York: Springer. pp. 7-8.
[55] Carey, A.B. and R.O. Curtis. 1996. "Conservation of Biodiversity: A Useful Paradigm for Forest Ecosystem Management." *Wildlife Society Bulletin*, 24(4): 610-620; see also Lippke, B.R. et al. 1996. *Economic Analysis of Forest Landscape Management Alternatives.* Seattle: College of Forest Resources; Carey, A.B. et al. 1999. "Intentional

US Forest Service researchers propose "biodiversity management" of second-growth forests, to reduce conflict between stakeholders and increase the long-term value and productivity of forest lands.
Source: file photo

3.2 Sustainable Silvicultural and Harvesting Practices

The Value-Based Silvicultural Model transitions from volume-based production for raw commodity exports to value-based production of advanced wood products, encouraging growth of high-quality, high-value wood as the economic driver of sustainable forests. The longest, most stable trend in forest economics is the relationship between timber prices and wood quality. To secure the greatest continued timber value in a forest, effective managers grow high quality wood. High quality logs are straight, with low taper, high ring count, small tight (green) knots, uniform concentric rings, low proportion of juvenile wood and few defects. The highest quality wood grows in tree trunks below the green crown.[56]

Systems Management: Managing Forests for Biodiversity." *Journal of Sustainable Forestry*, 9(3/4): 83-119; Carey, A.B. 2003. "Restoration of Landscape Function: Reserves or Active Management?" *Forestry*, 76(2): 221-230.

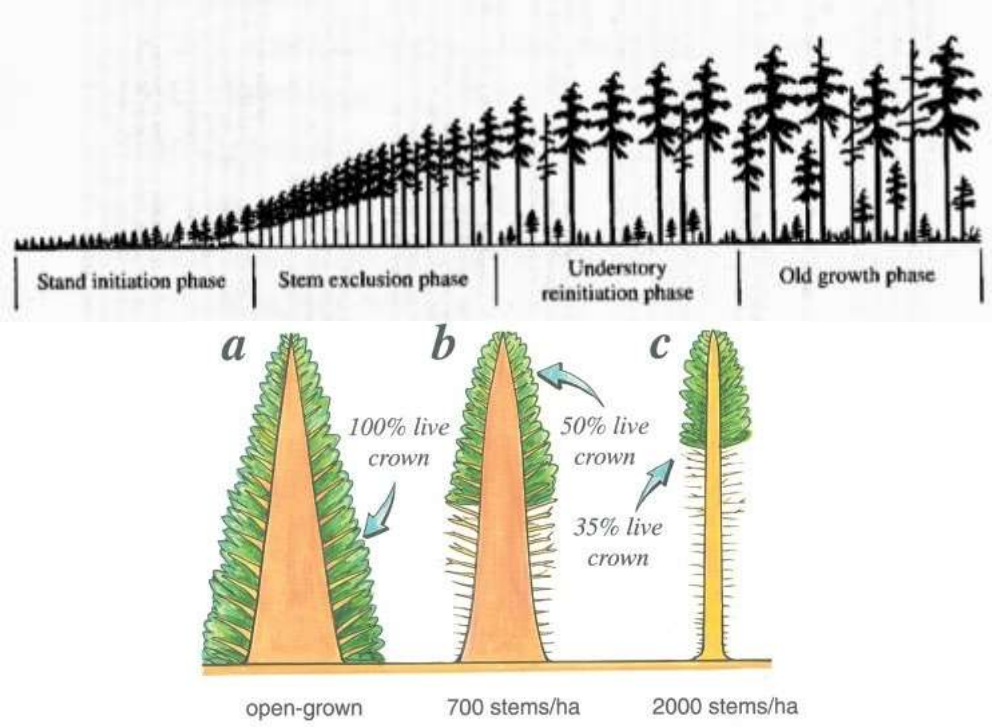
[56] Jozsa, L. and G.R. Middleton. 1994. *A Discussion of Wood Quality Attributes and their Practical Implications.* Special Publication No. SP-34. Forintek; Travers, Ray. 2014. "Putting First Things First in BC's Public Forests." *BC Forest Professional*.

Canadian Forest Service sample site at Sayward on Vancouver Island. Light (< 30%) thinning of this 52-year-old Douglas-fir stand has produced a healthy forest and high-quality timber, with long clear trunks and new "juvenile" wood confined to the top third of the tree.
Source: Ray Travers

Silvicultural best practices vary depending on specific tree species as well as the intended end-use by value-added producers. Applying expertise of forward-looking foresters on Vancouver Island and in the Pacific Northwest, research conducted into the management of coastal Douglas-fir and other tree species, analysis of silvicultural practices in Scandinavia and around the world, and input from value-added producers on Vancouver Island, the Value-Based Silvicultural Model proposes best practices for specific tree species and industrial applications to inform decisions by land managers.

A recommended silvicultural best practice for managed Douglas-fir forest to produce high-quality logs and wood products includes:

(a) High initial stocking after harvesting (2,500 trees / Ha).
(b) Extended rotations of stands (> 100 years).
(c) Frequent light commercial thinning of stands (each thinning removing < 30% of stand volume).



Research in Vancouver Island's forests indicates that high initial stocking (2500 trees / Ha) with light commercial thinning substantially improves growing conditions and wood quality, with undesirable green "juvenile" wood reduced to 25% of the tree.
Source: Jozsa and Middleton. 1994.

Recommendations for stocking levels, timing of rotations and thinning are based on 50 years of longitudinal research in managed Douglas-fir forests at sample locations around the Pacific Northwest, including test sites at Sayward and Shawnigan Lake on Vancouver Island – part of the "LOGS" (levels-of-growing-stock") study, a joint effort involving researchers with the US and Canadian Forest Services and industry.[57] US Forest Service researchers found in another study a high value gain from Douglas-fir trees in highly (initially) stocked stands, with low 25% juvenile wood and high-quality lumber; in comparison, low stocking levels result in open growing conditions, with juvenile wood approaching 75% and reduced timber value.[58] Pacific Forestry Centre researchers working

[57] Curtis, R.O., D.D. Marshall, and J.F. Bell. 1997. *LOGS: A Pioneering Example of Silvicultural Research in Coast Douglas-fir. Journal of Forestry*, 95(7):19-25 pp.; Curtis, R.O. and A.B. Carey. 1996. "Timber Supply in the Pacific Northwest: Managing for Economic and Ecological Values in Douglas-fir Forests." *Journal of Forestry*, 94(9): 4-37.
[58] Fahey, Thomas D. et al. 1991. *Lumber and Veneer Recovery from Intensively Managed Young-Growth Douglas-Fir*. US Forest Service.

at the Sayward and Shawnigan sites found that light commercial thinning substantially increases forest productivity and improves wood quality in Douglas-fir stands on Vancouver Island.[59]

BC's forest industry has been slow to adapt to emerging research on stocking levels and other best practices in silviculture, relying on simplistic modeling from the 1980s that ignores stand density factors impacting wood quality and grade assortment.[60] Field assessments of mature (30 to 100 year old) second-growth Douglas-fir forests on the east coast of Vancouver Island indicate a number of candidate stands for thinning, to improve the quality and value of standing timber and create employment. Criteria have been developed to determine when a stand is ready for a light (< 30 % volume removal) commercial thinning.

3.3 Requirements for Success

Implementation of the Value-Based Silvicultural Model requires:

(a) Long-term thinking and planning.
(b) Authentic forest policy and governance, decentralizing control over public forests to the regions to promote innovation and accountability.
(c) High standards of forest stewardship.
(d) Forest policy based on sound ecological and economic principles.
(e) Up-to-date and continuous inventory of forest resources.
(f) Development of planning tools to enable reliable field assessment.
(g) Highly knowledgeable and skilled workers.
(h) Investments in efficient thinning equipment.
(i) Validation of operational results through effective field monitoring.

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[59] Beddows, Dennis. 2002. *Levels-Of-Growing-Stock Cooperative Study in Douglas-fir: Report No. 16 – Sayward Forest and Shawnigan Lake.* Victoria: Pacific Forest Centre.
[60] Farnden, Craig. 2012. "The Secret Life of BC's Forests." *BC Professional Forester*, September-October: 26. For modeling that guides current industry practices, see Wyeth, M. 1984. "British Columbia Ministry of Forests Regeneration Survey System." In *Proceedings of the 1983 SAF Convention: New Forests for a Changing World*. Bethesda, Maryland: Society of American Foresters: 40-43; also Lavender, D.P. et al., eds. 1990. *Regenerating British Columbia's Forests*. Vancouver: UBC Press.

3.4 Legislative Reform

The Value-Based Silvicultural Model includes recommendations for legislative reform by the Province of British Columbia, including:

(a) Amending the Forest Act to give equal importance to timber production and biological diversity in decision-making by regulators and land managers, modeled on Sweden's Forest Act.
(b) Strengthening reporting and transparency requirements for all tenure holders on Crown forest lands.
(c) Amending the Vancouver Island Land Use Plan to protect remaining old-growth rainforest on Crown land.
(d) Legislating protection of drinking watersheds and restoration reserves in second-growth forest to ensure habitat connectivity.

3.5 Democratic Governance and Fair Access to Timber through Regional Forest Boards and Regional Log Markets

To realize the potential of Vancouver Island's forests and more effectively balance ecological, social and economic values, Democratic Governance is recommended through implementation of Regional Forest Boards and Regional Log Markets with the Value-Based Silvicultural Model, transforming the administration and governance of Vancouver Island's forests along the following lines:

(a) Expand and renew the Community Forest model to encompass all Crown forest lands on Vancouver Island, engaging First Nations with respect to Indigenous rights and title while transferring day-to-day administrative control from the Province of British Columbia to regional districts exercising powers as Regional Forest Boards.

(b) Retain the authority of the Province of British Columbia to provide the legal and regulatory framework within which regional forestry operates, including standards relating to the protection of ecosystems and watersheds, and mechanisms to provide for equity between regions.

(c) Support regional districts and First Nations in embracing Regional Forest Boards, leveraging existing knowledge within Community Forests and expertise in sustainable silviculture to develop and implement regional plans for: protection of ecosystems and watersheds; long-term and annual harvesting; replanting and commercial thinning; value-added production; and opportunities in non-timber forest products and eco-tourism.

(d) Establish Regional Log Markets operated by foresters accountable to Regional Forest Boards, to ensure access to timber at fair market prices for value-added producers and optimize public revenues from forest resources.

(e) Engage First Nations and industry to negotiate acquisition of private forest lands, extending the benefits of Regional Forest Boards and Regional Log Markets to each regional district and community on the island.

Restructuring Vancouver Island's forest economy along these lines responds to concern expressed by local governments "to be key partners in dialogue on forestry decisions, in a manner that considers community interests, identifies environmental impacts, and assesses the other potential consequences of conflicting land uses and strategies within a specific area."[61] The model provides a

[61] Union of British Columbia Municipalities. 2016. *Forest Policy Decision-Making: The Case for Greater Community Consultation and Engagement*.

framework for applying high standards of stewardship and sustainable silvicultural practices to forest lands, empowering land managers accountable to communities to grow and sell timber at fair market prices to well informed log buyers (mills and producers employing skilled workers making panels, flooring, doors, windows, furniture, musical instruments, pre-fabricated buildings and other goods that bolster local economies).

The sustainable model protects ecosystems and watersheds, while increasing the social and economic return to communities through well-managed forests producing high-quality, high-value wood destined for a fair market, where the right log is allocated to the right producer and sold at the right price. Regional log markets with a diversity of forest tenures (with at least 50% of timber sold competitively) can increase public revenues from forests by 2 to 4 times, while increasing jobs and providing competitive access to timber for the value-added wood product sector.

Trail-building in the Central Walbran Valley, expanding opportunities for recreational access, eco-tourism and the harvesting of non-timber forest products.
Source: Kenny Persson

3.6 Benefits

The Value-Based Silvicultural Model with Democratic Land Management offers a number of potential benefits for Vancouver Island, including:

(a) A high quality timber supply to attract investment and create jobs.
(b) Reversal of the economic decline of the forestry sector;
(c) Strengthening of Indigenous and rural communities, with increased opportunities for youth.
(d) A higher standard of on-the-ground forest stewardship.
(e) Increased public revenues, for general purposes as well as local reinvestment in developing the forest economy.
(f) High overlap between economic, ecological and social values in the well-managed forest.
(g) Increased carbon storage with greater capacity to mitigate and adapt to climate change.
(h) Transitioning to a "win-win" scenario in forestry, rather than "lose-lose."

3.7 Next Steps for Action

This policy statement has illustrated the problem facing Vancouver Island's forests and communities; identified best practices in forestry in Sweden and other forward-looking jurisdictions; and highlighted the potential for substantially improved ecological, social and economic outcomes through a transformation of the island's forest sector, toward a Value-Based Silvicultural Model with Democratic Land Management.

The advisors and lead sponsor, Island Forest Futures, hope that citizens, First Nations, community organizations and public officials will endorse this vision, demonstrate leadership and work co-operatively to implement the sustainable model – revitalizing forest-dependent communities, protecting living forest ecosystems and watersheds, and establishing democratic governance for the future of forests and communities on Vancouver Island.

Source: file photo

Source: file photo

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