

INCREASING VALUE-ADDED WOOD PRODUCTS FROM BC TREES

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SUMMARY

The BC forest sector must transition to one that has an increased secondary wood manufacturing component, if forest-dependent Indigenous and Non-Indigenous communities are to become resilient. This will also provide the opportunity to capitalize on the full value of the BC forest asset.

Transitioning to a 21st Century BC manufacturing sector will require cooperation, collaboration and patience by the communities and the forest industry. The critical factors influencing regional forest products diversification must be the focus of all involved, including Government. Realistic expectations and the balancing of forest resource goals will be essential.

Government must create a positive investment climate and identify potential markets, communities must welcome investors and support balancing of goals between forest resource values, and the forest industry must realize and acknowledge a transition will occur that includes their traditional products but not exclusively. Failure of any one of these requirements will jeopardize capitalizing on the BC forest asset and result in continuation of the goal to increase secondary wood manufacturing lacking success.

INTRODUCTION TO THE ISSUE

The BC Government has identified renewal of the forest sector as a priority. Increasing secondary wood manufacturing (value-added) and ensuring the “right log gets to the right mill” are expected to be included in this goal. This is not a new focus. It has been talked about, and policies and projects initiated for several decades. The fact we are still talking about it as a priority says a lot about the lack of success.

The traditional BC way is to embark on a new initiative without clearly considering how it will fit into an overall framework. A forest renewal Vision Framework¹ has been proposal to address this issue which includes the secondary wood manufacturing as a component. This paper includes an expansion on aspects of the secondary wood manufacturing sections to help clarify the next steps in understanding the factors related to increasing the secondary wood manufacturing sector within the Vision Framework.

¹ <https://www.bcforestconversation.com/bc-forest-renewal-vision-framework-update/>

SECONDARY WOOD MANUFACTURED PRODUCTS (VALUE-ADDED) DEFINITION

“Value-added” is a term globally used to describe materials that have been remanufactured from rough lumber or logs, into a higher grade of finished product [than dimension lumber or panels].

Two types of remanufactured products are generally recognized:

1. semi-finished and finished products
2. remanufactured lumber

1. Semi-finished and finished products are manufactured from commodity wood products and may include:

- engineered wood products (laminated beams, trusses, wood I-beams, etc.)
- millwork (doors, windows, architectural woodwork, turnings, etc.)
- cabinets (kitchen & vanity cabinets, cabinet doors, countertops, etc.)
- furniture (household furniture, ready-to-assemble furniture,
- commercial and institutional furniture, patio furniture, etc.)
- pallets and containers, and
- other wood products (chopsticks, ladders, toys, etc.)

3. Remanufactured lumber products include all lumber or wood product outputs from a remanufacturing process performed on sawn lumber input stock. The remanufactured process includes subjecting lumber input stock to one or more of the following processes including: change in thickness, width, length, profile, or joined together by finger joint or otherwise.²

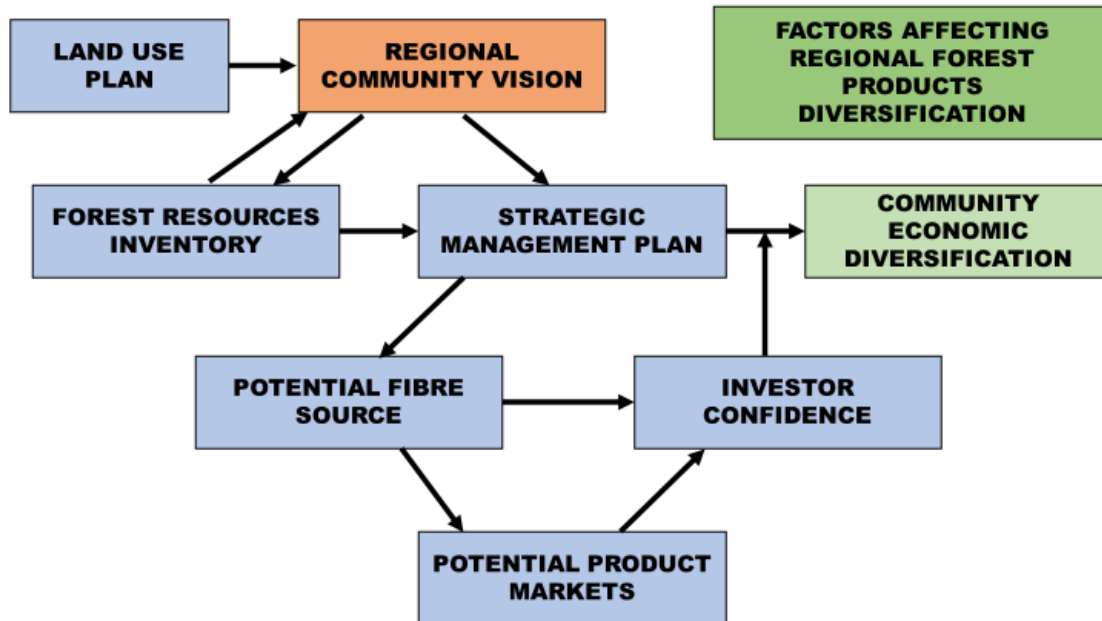
STEPS TO REGIONAL COMMUNITY FOREST SECTOR DIVERSIFICATION

Over the last 10 years, various factors have impacted affecting the commodity wood producers and subsequently the communities in-which they operate. This has resulted in a greater attention to diversification of the local/regional forest sector. Although the forest sector has been traditionally subject “ups and downs” that affect the commodity producers, other wood manufacturing components of the forest sector are not always subject to the same impacts. The general consensus is a forest sector with greater wood products manufacturing involving more secondary wood manufacturing would both ameliorate some of the impacts on communities while also raising the value received from the BC timber resource.

So, how can BC Indigenous and Non-Indigenous forest-dependent communities move to a more resilient local forest sector that includes increased secondary wood manufacturing? There are several factors which influence the creation of secondary wood manufacturing. The first is for communities to think regionally rather than within their specific community. This will require cooperation and collaboration between the regional communities, to fully capitalize on the opportunities.

² BC Wood Specialties Group, <http://www.bcwood.com/>

The following graphic outlines the factors influencing regional forest products diversification followed by a discussion on each.



Regional community vision

The community vision for the regional/local forest establishes guidance to the level and type of preferred wood manufacturing diversification. A discussion on the approach to arrive at a vision is provided in <https://tinyurl.com/y9v3opkh>. Care is needed to make sure the vision is supported by a regional land use plan and the forest resources inventory within the region. The vision cannot be based on “wishful thinking.” The vision also provides guidance to the development of the strategic management plan discussed below.

Government is working on “modernizing land use plans” on a case by case basis. Indigenous and Non-indigenous communities that want to work cooperatively and collaboratively in updating an existing land use plan as a working document to guide the creation of a regional community vision should be encouraged to find ways to do so as a means to expedite the movement toward achieving community resiliency. The process would build positive community relationships and have influence on the future of their regional/local forests.

Forest Resources Inventory

Fundamental to diversification of the regional forest sector is knowledge about the local forest as provided through the forest resources inventory. It is critical that the inventory contains data and information on both the existing forest and the future growth of the forest. A recent review of the BC forest inventory system relative to current and future needs was conducted by a Blue-Ribbon Forest Inventory Review Panel for the

Ministry of Forests, Lands, Resource Operations and Rural Development (MFLNRORD)³. Recommendations on improvement of the inventory are available at <https://tinyurl.com/y4j734xj>. Implementation of these provide critical support for the community vision and are being considered by the Ministry's Forest Analysis and Inventory Branch.

When encouraging the manufacturing of secondary wood products locally, it is critical to know what trees exist in the local forest and the suitability of potential products for each. Consequently, a forest inventory that can provide the base data is essential for investment decisions. Also, secondary wood products generated directly from logs will probably be from trees harvested within the region. Those businesses that produce products converted from commodity products into secondary wood products are less related to the regional/local forest inventory as the companies can readily access their base material from outside the region.

Strategic Management Plan

Once a community vision has been identified and a forest resources inventory provided, it should be required that the forest managers develop a spatially and temporally explicit strategic management plan (Strategic Plan) that projects the results of several management scenarios for 250 years. Reference to a description of the concept is noted below.⁴

A fundamental principle of the Strategic Plan is that all the constraints associated with achieving an acceptable level of conservation of non-timber resources are accommodated with the result determining the availability of timber for harvesting (timber supply residual). Arriving at an acceptable scenario requires a balancing process to as much as possible meet the desired targets for all the resources in achieving the community vision.

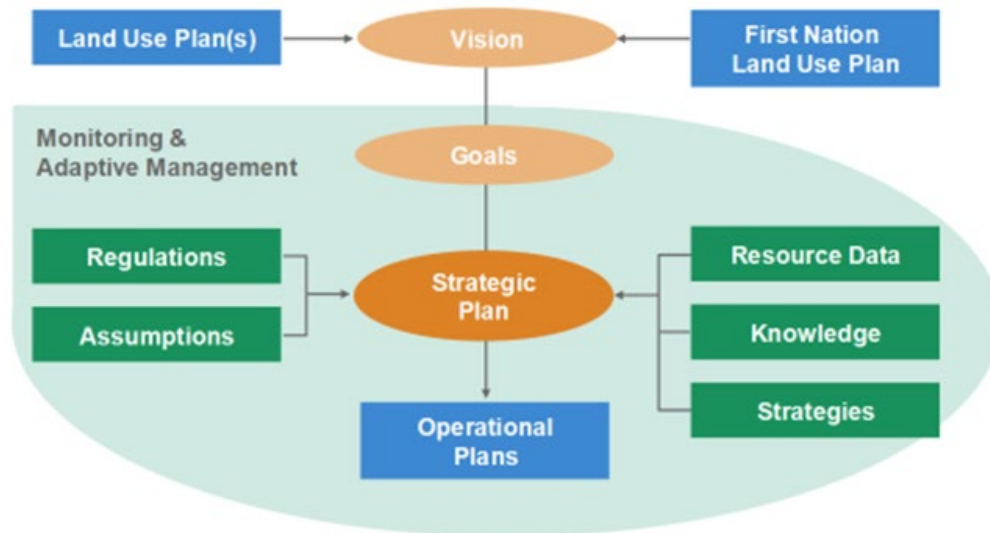
The Strategic Plan could replace the current Forest Stewardship Plan (FSP) with a more reliable plan that shows the tactical level of planning which previously came under criticism by the Forest Practices Board.⁵ The expectation is that it would address many of the community concerns and contribute to restoring public confidence and improving the social license. This would also be a fundamental document to demonstrate movement toward the regional community vision. The planning framework is outlined graphically below.

³ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stewardship/forest-analysis-inventory/panel_summary_report_final.pdf

⁴ <https://www.bcfconversations.com/wp-content/uploads/SPATIALLY-AND-TEMPORALLY-EXPLICIT-STRATEGIC-PLANNING-FRAMEWORK.pdf>

⁵ <https://www.bcfpb.ca/reports-publications/reports/forest-stewardship-plans-are-they-meeting-expectations/>

STRATEGIC FOREST PLANNING FRAMEWORK



Many of the components in the Framework are either being used in some BC locations or have been proposed over the years. This approach is not new. It was used in the Lignum Ltd Innovative Forestry Practices Agreement 1994-2004⁶ and currently in the Integrated Stewardship Strategy Pilot Projects (ISS).⁷ The technology has been available and constantly upgraded through BC consultants for over 20 years.

Potential fibre source

Once an acceptable scenario has been decided upon as the Strategic Plan, the sustainable volume and species mix that will potentially be available for harvest over the long-term can be provided to investors. The community vision will guide the availability of available fibre to create a diversified commodity and secondary wood manufacturing sector within the region.

Potential markets and investor confidence

Although Government can and should provide support in the form of a sound investment climate, including a suitable regulatory system. However, the primary responsibility for encouraging a diversified regional wood manufacturing sector resides with the communities and the manufacturing sector

⁶ https://forestnet.com/LSIssues/Oct_00/forest_management.htm

⁷ <https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/silviculture/silviculture-strategy-areas>

investors,⁸ with cooperation by the existing commodity forest sector. Transitioning to a new BC wood manufacturing sector will not be easy, quick or without its challenges!⁹

The future of the BC secondary wood products manufacturing sector is through the creation of regional clusters where the available fibre is fully utilized and directed to the highest value products.¹⁰ The cluster model has been proven to be a success in many situations within the forest sector and in other sectors across Canada and around the world. A working definition of a regional cluster is establishing a network of “closely related wood manufacturing facilities within two (2) hours drive of one another” to facilitate good communications and working relationships.

⁸ <https://www.bcforestconversation.com/new-wood-manufacturing-sector/>

⁹ https://www.bcforestconversation.com/wp-content/uploads/Building-a-diversified-mfg-sector-challenges_1.pdf

¹⁰ <http://bcforestconversation.com/wp-content/uploads/Building-through-clusters-1.pdf>

Appendix

This Appendix is intended to provide information for lay persons thinking about encouraging secondary wood products in their regional/local communities. The tables identify secondary wood products currently being produced to various levels in BC from trees harvested in the Province are provided.

WOOD PRODUCT	SPECIES
HOME CONSTRUCTION PRODUCTS	
Post and Beams	Amabilis fir
	Coastal Douglas-fir
	Interior Douglas-fir
	Lodgepole Pine
Log Homes	Western Red Cedar
	Lodgepole Pine
Shakes and Shingles	Western Red Cedar
Finger-jointed lumber	Amabilis fir
	Coastal Douglas-fir
	Interior Douglas-fir
	Lodgepole Pine
	Western Hemlock
HEAVY TIMBER WOOD PRODUCTS	
Cross Laminated Timber	Amabilis fir
	Coastal Douglas-fir
	Interior Douglas-fir
	Lodgepole Pine
	Western Hemlock
Nail Laminated Timber	Amabilis fir
	Coastal Douglas-fir
	Interior Douglas-fir
	Lodgepole Pine
	Western Hemlock
OTHER SOLID WOOD PRODUCTS	
Poles	Coastal Douglas-fir
	Interior Douglas-fir
	Western Red Cedar
Post and Rail	Lodgepole Pine
Pallets	All conifer species
Railway ties	Western larch
Pilings	Western larch
Aircraft parts	Engelmann spruce
Oil and gas road construction platforms	Trembling Aspen

Appendix (cont'd)

EXTERIOR DECORATIVE PRODUCTS	
Fences and Decking	Western Red Cedar
	Yellow Cedar
INTERIOR BUILDING PRODUCTS	
Millwork – interior design features	Coastal Douglas-fir
	Interior Douglas-fir
	Western Red Cedar
	Big Leaf Maple
	Western Hemlock
Doors	Coastal Douglas-fir
	Ponderosa Pine
	Western Red Cedar
	White Birch
Flooring	Big Leaf Maple
	Coastal Douglas-fir
	Ponderosa Pine
	Red Alder
	Trembling Aspen
	White Birch
Cabinets	Big Leaf Maple
Furniture	Big Leaf Maple
	Lodgepole Pine
	Ponderosa Pine
	Red Alder
	White Birch
	Western white pine
Wall paneling	Lodgepole Pine
	Ponderosa Pine
SPECIALTY PRODUCTS	
Artistic products	Big Leaf Maple
	Western Red Cedar
	Yellow Cedar
	Western white pine
	Arbutus
Guitars	Big Leaf Maple
	Sitka spruce
	Engelmann Spruce
Chopsticks	Trembling Aspen
Boats and canoes	Yellow Cedar
Film industry panels	Trembling Aspen

Appendix (cont'd)

WOOD RESIDUES	
Pellets	All species are used but some are preferable for a particular product
Briquettes	
Chips	
Charcoal	
Bio-coal	