# VANCOUVER ISLAND WOOD SHIPPING RESEARCH: SUMMARY REPORT

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# Summary Report (Draft)

## Executive Summary

The forest industry is a complex and highly interdependent industry. This is reflected in the transportation patterns of products to and from domestic and international customers. The industry depends on a flexible environment of buying, selling, trading, and partnering in order to conduct business effectively and efficiently. Understanding this complex network and needs is the first step in determining how to best service the industry.

A key driver for the forest industry today is remaining cost competitive on the international and domestic markets. Transportation is one of the four largest costs to the industry in addition to personnel, fibre, and energy (Institute for Research on Public Policy). Most any effort to reduce those costs is, obviously, of interest to business. Significant gains and opportunities lie in reducing the frequency of handling of product, cycle times or distance, and rates. Resilient and significant reductions in cost will enhance the long-term stability and sustainability of the industry and the benefits it provides to the Province.

The following summary report compiles information collected from conversations with a selection of forest products producers. The intent is to capture some basic information on the industry, including current export and transportation activity, to develop an understanding of the industry for further exploration into strategic plans at the Port.

While the quantitative information in this report provides a benefit to strategic planning, there was additional value in the exercise to by enhancing the profile of the Port as a proactive participant in the improvement of the industry. In addition, several business development opportunities, with existing Port infrastructure, were identified and may be explored.

Key Findings

- A significant volume of forest products are sent to the Lower Mainland for overseas shipping
- The industry is made up of a few large operators and many small and medium producers
- Small and medium producers do not have the scale to attract shipping services, on their own, from Vancouver Island overseas
- There are few mechanisms currently available to consolidate small volumes for shipping from the Island
- Interviews indicated that a lack of Island infrastructure and cost of current transportation options were a barrier to accessing markets
- With improved access to shipping infrastructure it is conceivable that local manufacturers could increase competitiveness

# Summary Report (Draft)

## Project Overview

The Port Alberni Port Authority ("the Port") was seeking a high level assessment of some of the forest products producers operating in the region, or general "catchment" of the Port, the order of magnitude of production and overseas exports by those producers, current transportation methods, existing relationships with the Port, any barriers to utilizing the Port facility as-is, and any opportunities for improvement.

### *Intent and Objective*

The objective of the project was to collect information that could be used to guide strategic planning for the Port. The information collected in this project was not intended for detailed financial analysis but merely to provide direction for strategic planning and a coarse filter approach to determining projects that may warrant further exploration. In addition to collecting some quantitative information the project was expected to:

- Establish baseline information of potential Port business associated with the forest sector
- Build relationships with existing and potential customers
- Identify opportunities for improvement of current Port services and infrastructure

### *Methodology*

A sample of forest product producers were contacted and interviewed (See Appendix 1 for the industry list). Industry profiles remain confidential and will not be distributed without the permission from the individual organization. Information gathering was collected by telephone by CAMP Consulting. All contacts were aware of the intent of the discussion and collection of information, and that the call was from the Port of Port Alberni. All parties that were profiled were cooperative and interested to share some basic information.

A total of 27 producers were profiled; 14 sawmills, and, 8 log producers (of which, 2 private landowners, 2 First Nations, and 1 broker), 3 pulp or paper companies, 1 veneer producer, and 1 pole company. The intent was to select a variety of forest products types from a range of locations to get a general sense of the transportation patterns for a variety of circumstances.

A small amount of log producers were sampled and the focus was on log producers in the Alberni Valley. Largely in part to the fact that the Port is active in shipping logs and there are more mechanisms in place for small operators to sell volume and access markets.

Information was summarized in a "profile" for each organization and the information was compiled to develop the following:

- Tools for internal briefing on project findings
- Summary of details on each forest products producer in PAPA's sphere of interest
- General description and summary of current transportation infrastructure, routes and modes (utilized by the clients) and general volume estimates
- Summary of barriers and opportunities

The following report summarizes the findings of those discussions.

## Use and Confidentiality

The purpose and intent of this project, and summary, is for the Port's development of a broader understanding of the forest products producers in the region and to provide direction in terms of assessing potential opportunities and improvements for the Port facility.

The accuracy of the information in this report is limited to the estimates provided by the interviewees and the data sources cited. The information provided is an estimate at the time of interview and may not represent historical or future figures. Information was provided with the intent to support the guidance toward strategic plans for the continual improvement of transportation in the forest sector.

For financial and/or feasibility analysis, or other detailed business assessments, it is recommended that more detailed data will be collected (such as historical actuals) under confidentiality agreements with key organizations.

The interviewees or the author (CAMP Consulting) do not bear any responsibility for the outcome of business plans and strategies based on this information.

The opportunities and suggestions put forward in the interviews are not a guarantee of business from the interviewee and a decision by the producer to engage in business relationships are subject to their financial review and their own prerogative.

Summary information in this report is only for those organizations profiled. Proportional summaries do not represent the Coast as a whole and totals could be higher than reflected as the companies profiled do not include all producers.

Profiles or this document are not to be reproduced without express permission from the interviewees prior to the release of any information. The general summation and the anonymous presentation of comments, without any reference to particular companies, for planning and communication purposes, are acceptable.

## Industry Background and Context

The forest industry on the coast of BC is an important part of the economic fabric of the region. It contributes 11% of the total GDP and provides 10% of all of the jobs on the Coast (Coast Forest Products Association).

Forest product markets are cyclical and recently the industry experienced some of harshest downward cycles in recorded history. Markets have improved and the industry has also responded strategically through exploring new products, expanding traditional markets, and maximizing benefits along the whole production value chain. "The aim throughout this complex chain is to maximize efficiencies that will reduce costs and create incremental value at every link. The final link in the chain is marketing and delivering the products" (Natural Resources Canada).

Forest product manufacturing is a "capital intensive" industry. Return on capital employed in 2011 was 1.9% for wood product manufacturing and 2.5% for paper (Stats Canada). Success of business requires a keen focus on maximizing profit margins. Transportation and handling make up a significant portion of the costs to forest products extraction and manufacturing, therefore, reducing cycle times and handling frequency remains a target for forest businesses. This is especially critical where prices are "delivered" in the global marketplace.

The government of BC continues to support the forest industry, specifically with respect to the importance of global market development.

> "*Deepening our relationships through trade missions and strategic outreach will lead to more economic activity here at home, and more jobs for British Columbians'" ~ Premier Christie Clark*

Cost effective and practical means of shipping to these expanded markets are a key component of the industry's success. Potential improvements, additional infrastructure, or cost savings for transportation, at any point in the value chain, would be advantageous to the industry.

# Research Findings

## *Products and Facilities*

The Port Alberni Port is geographically relevant to most of the South Island (SINRD) and Campbell River (CRNRD) Natural Resource Districts (the "region") which administers various timber tenures on the landbase. The region has a diverse mix of timber sources; private lands, major licensees, BC Timber Sales and various minor tenures such as Woodlots, Community Forests, Forest Licences and other small tenure types as well as a variety of manufacturing facilities. The total area of both districts is approximately 3 million hectares with an Allowable Annual Cut (AAC) of 10 million m3 (SINRD Profile)(CRNRD Profile).

Logs, the first product on the value chain, from these sources are bought, sold, and traded in a complex log market. Logs are manufactured domestically into various products and sold domestically or overseas. If not processed locally, logs are exported overseas or to US markets. More information on log and product exports can be found at the Ministry of Forest's Competiveness and Innovation Branch website (http://www.for.gov.bc.ca/het/index.htm).

There is a diverse range of manufacturing facilities, by product as well as facility size, within the sector. Sizes range from small family run mills to large-scale globally active producers (See Table 1 for a breakdown of those profiled). In many cases, despite size, Vancouver Island wood products are delivered all over the world and represent some of the highest quality specialized products available. The following are some most common forest products produced in the region:

- Lumber – dimensional and specialty
- Timbers
- Logs and Temple Logs
- Engineered Logs
- Veneer (and cores)
- Pulp and Paper
- Shake and Shingle



Table 1: Size distribution by production of profiled manufacturers (no log producers)

| | Small | Medium | Large | |
|---|---|---|---|---|
| Lumber* | 5 | 3 | 10** | Small: <10 mmfbm/yr Medium: >10 and <40 mmfbm/yr Large: >40 mmfbm |
| Pulp/Paper | 0 | 0 | 4 | Large - Pulp and Paper >150,000 tons/yr |
| Veneer | 0 | 0 | 1 | Large - Veneer >100,000 m3/yr |
| Other (Poles) | 1 | 0 | 0 | < 5,000 m3 |

*8 of those ten are owned by a single company

## *Exports*

Wood products producers on Vancouver Island deliver to a variety of markets. The following is a limited list of common customer countries for those profiled:

- Canada
- United States
- Japan

- Korea
- China
- Taiwan
- Manila
- Philippines
- Vietnam
- Australia
- New Zealand
- Europe
- Central and South America

Table 2 summarizes, for the companies profiled in this study, their estimated current annual production volume and export volume. This summary gives an order of magnitude to the volume available for export directly from Vancouver Island from a portion of the manufacturing facilities and is an estimate.

Table 2: Summary of Estimated Current Annual Production of Products Profiled[1]

| | Production | Overseas Export |
|---|---|---|
| Lumber | 996 million fbm | 580 million fbm |
| Pulp/Paper | 1.6 million tons | 0.7 million tons |
| Veneer | 0.5 million m3 | 0.1 million m3 |
| Cores | 7.5 million pcs | 1.5 million pcs |

## *Transportation*

Transportation of product in the region starts at the timber source and is transported to sorting and/or manufacturing facilities by water (booms or barges), truck, train or combination. Logs to be exported are primarily transported via breakbulk ship overseas via Nanaimo, Port Alberni, Chemainus, Gold River, Quatsino, or the Mainland. Manufactured products are transported by truck, boom, or barge to domestic or US customers, to a breakbulk ship in Port Alberni, the Mainland, millside docks or to a containerizing facility in Nanaimo or the Mainland.

Export of manufactured products can go, both, breakbulk or container. Interviewees indicated that containerizing is preferred based on customer needs, ease of phytosanitary treatments, product protection or delivery port requirements. Some individuals surveyed indicated that there is a preference by their customers to ship via container and that export shipping is trending to be more via container. Containerizing logs on Vancouver Island and barging to the Mainland is also an option and is currently happening in Nanaimo and onsite at select mills. However the additional handling and transportation still brings to question if this is the most cost efficient solution.

Export of logs can also go breakbulk or container but trends seem to lean more to breakbulk. Unlike the smaller lumber manufacturers, small log producers address scale, typically by selling to brokers or larger operators as early as at the harvest phase.

While there are options for similar brokering activities for lumber on the Lower Mainland, there was no indication of a Vancouver Island based "lumber broker" offering services to the producers surveyed. Without the scale to ship, many small operators have opted to only ship when they can partner with larger producers, transport to the Mainland, or avoid export markets and develop domestic opportunities.

[1] Volume summaries for this report only a summary of products profiled which are a limited list. Portions of production do not represent industry percentages and volumes could be higher than reported. Poles and logs not included.

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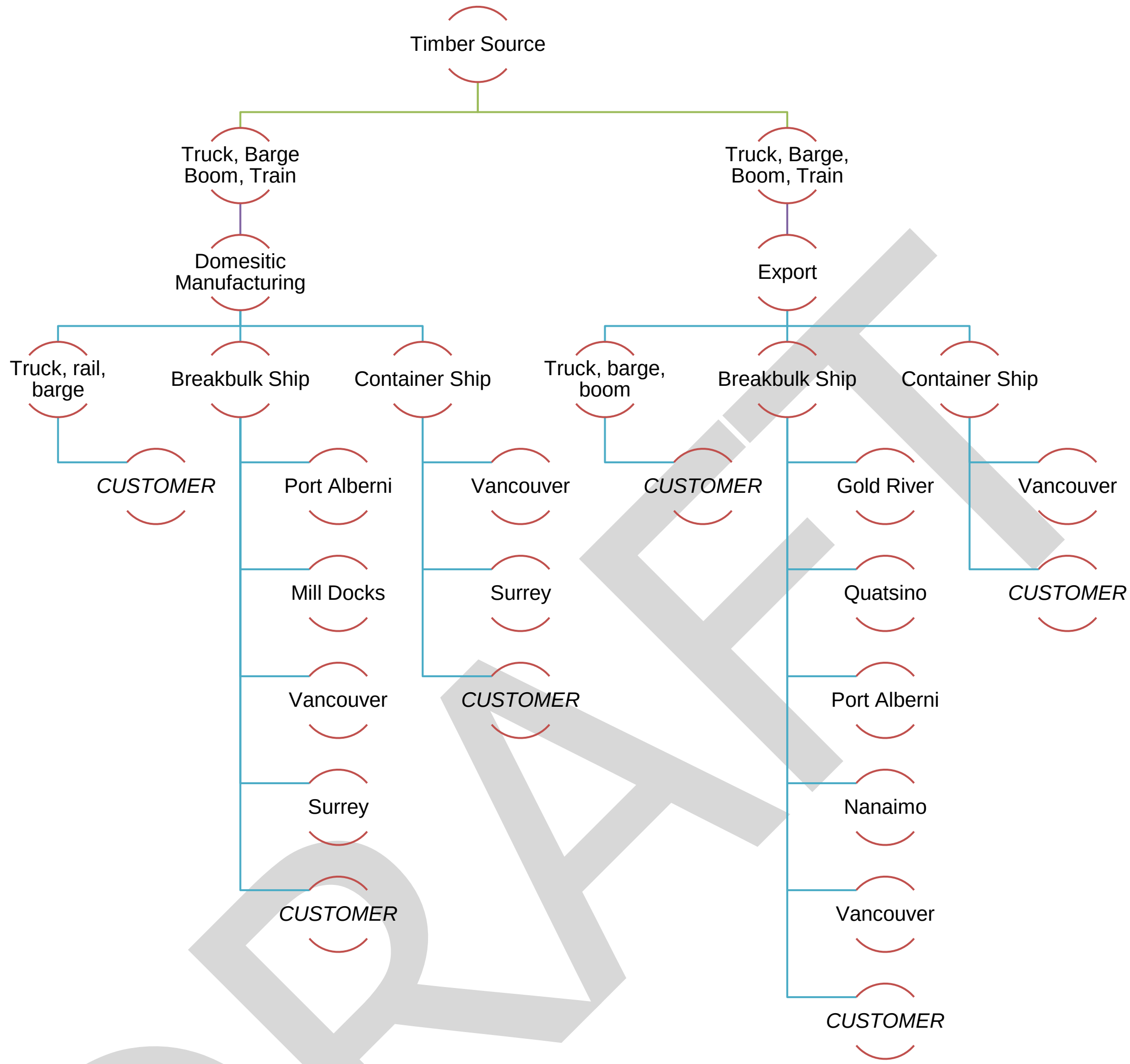
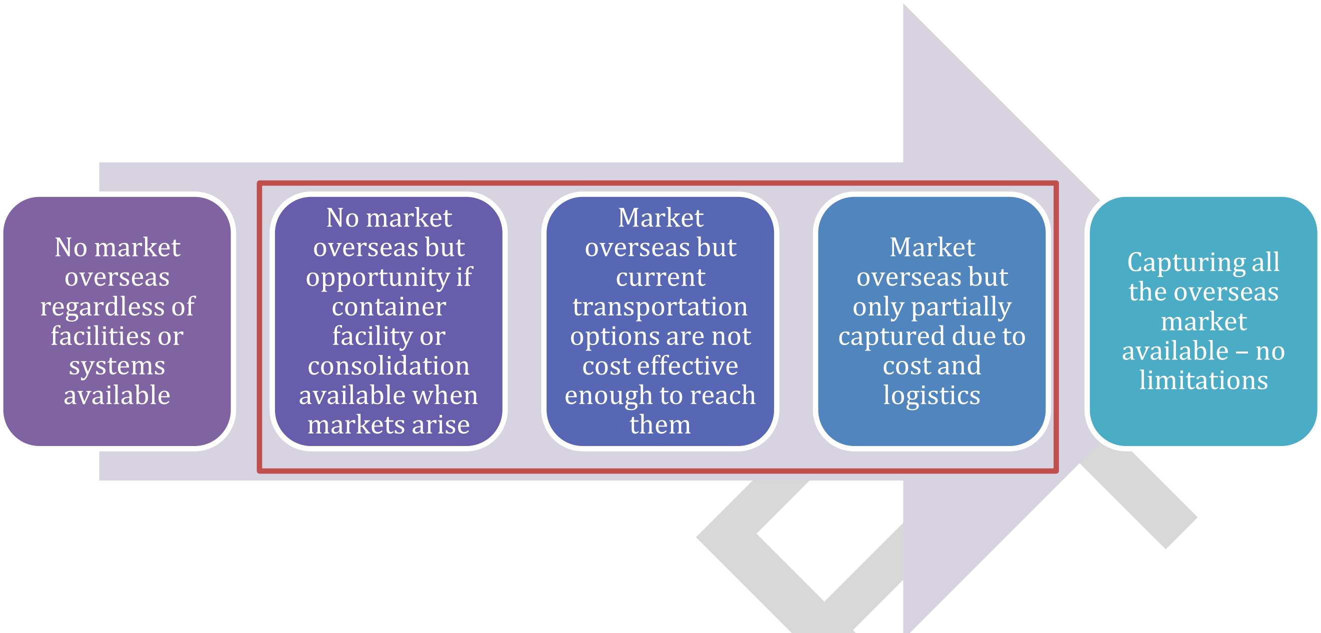
The following illustration shows the transportation flow of products:




Based on the interviews, there were indications that a lack of Island infrastructure and cost of current transportation options to the Mainland were a barrier to markets and, subsequently, sub-optimal sales value and customer diversity.

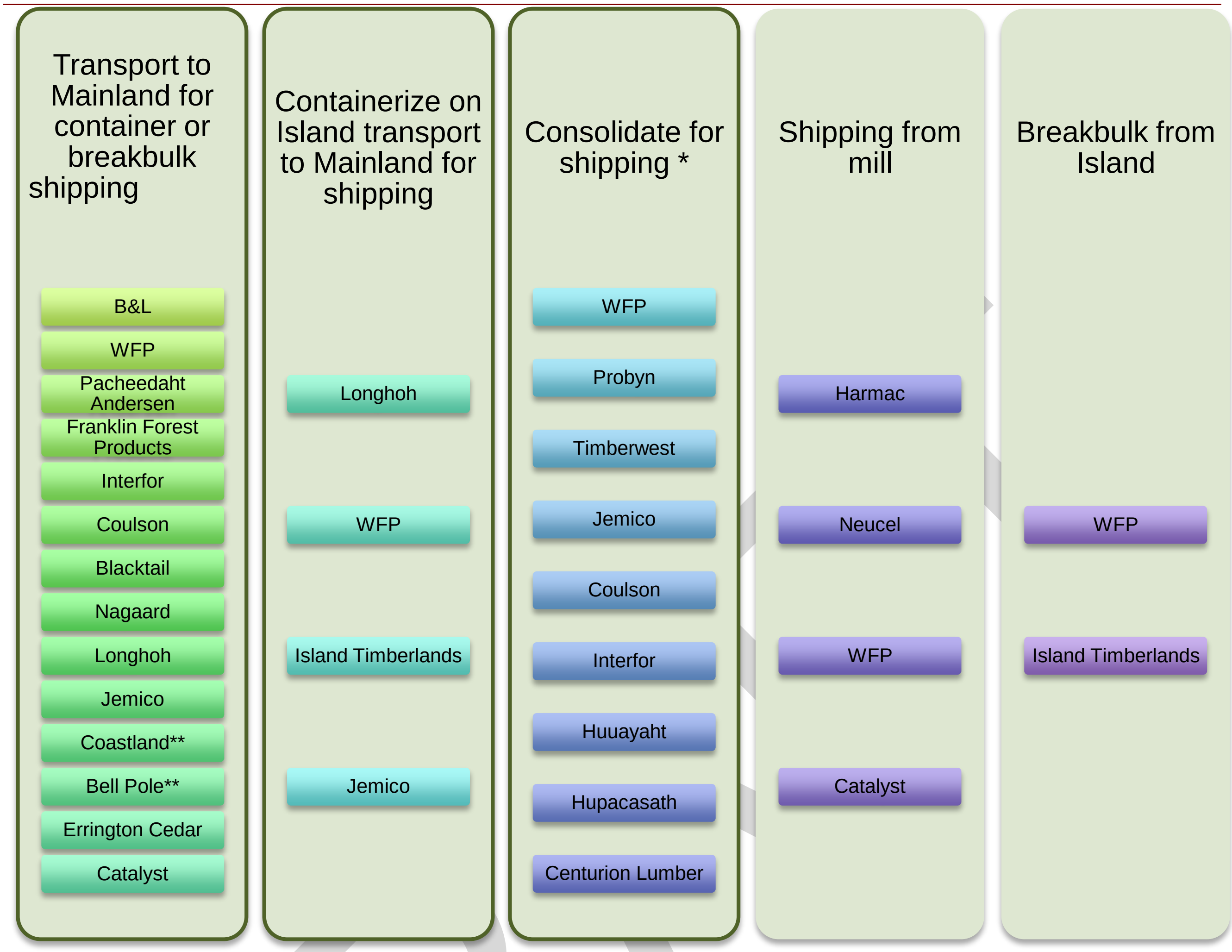
The following diagram outlines five categories or a spectrum of market access opportunity based on the current shipping infrastructure:




Overall it could be assessed that some opportunity to access markets and maximize product value is lost due to a lack of infrastructure or systems on Vancouver Island, particularly in the case of smaller operators.

While a portion of the volume does go via optimal routes, such as mill docks or to the Lower Mainland for additional processing, at a minimum, 185 million board feet of lumber/yr is transported to the Mainland for shipping. The cost of water transport or trucking to the Mainland is very high with additional handling requirements. In some cases the cost of transport to the Mainland prohibits operators from accessing overseas markets at all.

The following illustration lists some of of transportation means currently utilized by companies surveyed:




*Sell to broker, work through larger producers, etc.
**Require further processing on Mainland before shipping

Four companies surveyed currently are not exporting.

The illustration clearly shows that a significant number of those producers sampled are sending product to the Mainland for shipping. The three boxes that have been outlined indicate areas for improvement that are discussed further in the recommendations section.

It is also important to note that the current market activity is based upon the current infrastructure. If infrastructure was available, to access markets more cost effectively, the export market could potentially expand to more than what it is today.  This could mean access to markets offering higher prices.  At the very least, increased access to markets could enhance customer diversity and the ability to retain customers for better business stability.  Improvements in market access are particularly beneficial for the region in the case of finished products.

There were cases discussed where lumber producers can share cargo space with larger producers however in many cases, there is little security of this transport mechanism for the smaller operator.  This makes it challenging for them to commit or invest in future orders or market development.  This independence and security is critical to seeing local business invest in their people and equipment.

## Port Alberni Port Use

In most cases, where feasible, producers utilized the Port and there were no indications that the Port was not used due to shortcomings of the Port or Port service quality. Rather, barriers are related to limitations in the infrastructure and systems available, particularly for smaller producers. Transportation trends communicated through the survey indicate that a significant number of producers are exporting via the Mainland in containers and would experience significant cost savings if they could transport to Port Alberni for shipping.

## Barriers

There are several reasons why producers may not be shipping via the Port of Port Alberni:

- Operator does not produce enough volume to attract breakbulk ship
- Exports are by container and must go via the Lower Mainland
- Operator does not have scale to warrant the cost of any export (via breakbulk or container through the Mainland)
- It is cost prohibitive to transport by truck and ship via Port Alberni
- Infrastructure exists at mill site to direct ship to customer
- Transportation to the Mainland is required for secondary processing prior to shipping (i.e. drying, treating, remanufacturing)

The most significant barrier to utilization of the Port of Port Alberni is that there isn't a container facility. Many exports are going container as they are easier for phytosanitary and product storage needs, in some cases, are preferred by many customers and ports, they are more practical for the scale of small and medium producers. Container shipping can be more cost effective than breakbulk but shifts in pricing do impact choices in some cases.

With the current Port infrastructure, logs cannot be consolidated at the Port (build an order) as this would require storage capacity and sorting ability.

While there are opportunities to consider there are some external factors that can create challenges.

- Fibre supply impacts the ability for manufacturers to forward plan and forecast shipping needs
- Other Island shipping facilities have a geographic advantage in relation to the fibre source over Port Alberni

## Opportunities

Discussions with local operators provided some interesting feedback for opportunities. The most frequent opportunity suggested was for a container facility. Opportunities were suggested as follows:

- Containers direct to overseas customers from Port Alberni could provide:
    - Reduction in handling and transportation distance to a shipping facility
    - Opportunity to ship inbound raw material
    - New opportunities for those currently not exporting
    - Opportunity for small scale wood producer shipping
    - Alternative shipping options if/when other Ports are challenged (for example freshet or congestion issues)
    - Note: Would have to be at the right price point and using the right shipping lines/port destinations

- Facilitate a cooperative of small operators to build shipments
    - Act as consolidator (lumber broker) and build ship volumes from small operators

- Secure ship or a part ship and facilitate consolidation

- Improve efficiency in the forest industry by facilitating services for the fee currently charged for log towing in their purview

- Loading logs on land to address problems with sinking hemlock

- Public sorting facility at the head of the inlet

- Service of a Chinese ship in Port Alberni

The following suggestions were noted in interviews and could warrant further exploration by the Port:

- US shipping
- Bringing containers from the Mainland to Port Alberni
- Other potential container products; coal, water, trans-loading pulp, inbound products
- Surplus (to domestic needs) hog fuel consumption or shipping
- Collaborative groups or associations (small operators, first nations)
- New products coming online for transportation
- Debarking facility
- The “Island Vision” for transportation (tie in Port Strategic plans with an overall VI vision)

## Conclusion and Recommendations

The survey generated many ideas and showed some significant patterns in the needs of the industry. In addition to the suggestions from the survey respondents, below are some further recommendations.

There is a significant amount of information that can support the Port's strategic direction, key messages from this information that can be utilized when communicating internally, with government, or other influencers to move your projects forward. A summary of key messages supported by survey information would be beneficial to these communications efforts.

A feasibility analysis of a container loading and shipping facility at the Port is underway. There is information in the profiles and the report that will support this analysis. However, this isn't the correct type of information for the basis of financial analysis. Due to the cyclical nature of the forest industry, any analysis should utilize historical averages or actual figures. Due to the confidential nature of this more detailed volume, cost, and customer information, detailed surveys should be accompanied by confidentiality agreements, or other means of protection of sensitive corporate data.

While the container facility opportunity dominated many conversations. There still seems to be value in exploring the expansion of breakbulk. It is possible that many of the smaller producers are shipping by container because of scale and have not entertained breakbulk in the absence of a practical solution. It appears that the larger operators are sufficiently serviced by breakbulk shipping, therefore, options would have to incorporate a cooperative approach to consolidating small and medium operators.

The clear value-add from this project was about customer relations. Not only is this an enhancement of the Port's knowledge base of the industry, but the project itself is a reflection of the Port's willingness to think proactively and work cooperatively with the industry. The survey garnered a very positive response from nearly every producer. This momentum and positive relations should be maintained through follow-up and a communication or outreach plan that will aim toward long-term working relationships with existing and potential customers in the forest industry.

# Resources

## Works Cited

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## Data and Reference

There are many documents that may complement the Port's desire to enhance their understanding of the forest industry. Following are links to several that are very relevant.

- Major Timber Processing Facilities in BC 2009 (http://www.for.gov.bc.ca/ftp/het/external/!publish/web/mill%20list/Public%20Report%202009.pdf)
- Major Timber Processing Facilities in BC 2011 (https://www.for.gov.bc.ca/ftp/het/external/!publish/web/mill%20list/Mill%20List%20Public%20Report%202011.pdf)
- South Island Forest District Profile (http://www.for.gov.bc.ca/DSI/District%20Profile/South%20Island%20District%20Profile.pdf)
- Campbell River Forest District Profile (brochure)
- Moving from a Volume Focus to a Value Perspective (http://www.bcbc.com/content/578/2020_200910_Woodbridge.pdf)
- Generating More Value from our Forests (http://www.for.gov.bc.ca/het/valueadded/valadded_report.pdf)
- Generating More Wealth from BC's Timber (http://www.for.gov.bc.ca/ftp/het/external/!publish/web/exports/generating-more-wealth.pdf)

## Links

- The Sawmill Database: www.sawmilldatabase.com
- Independent Wood Producers Association of BC: www.iwpabc.com

- Coast Forest Products Association: www.coastforest.org
- Forest Products Association of Canada: www.fpac.ca
- Council of Forest Industries: www.cofi.org

## Appendix 1: Industry List