
NorthWest Fibre Utilisation Study

Project Summary Report:

The Small-Scale Wood Processing Sector in the Kalum-Kispiox Region of British Columbia: Challenges and Opportunities

- Prepared by Northwest Timberlands, March 2005

and

Hardwood Inventory 2005 - Nass and Cranberry Timber Supply Areas

- Prepared by MarkUS Resource Consulting, March 2005



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1. Introduction

This report provides a summary of the findings from two related projects:

- Updated hardwood inventory information for the Nass and Cranberry TSAs; and
- A summary of the small-scale wood processing sector in the Kispiox and Kalum areas

1.1. Background

In 2002, planning for the use of Forest Investment Account funds identified the need for a hardwood management strategy for the Kalum Forest District. In order to prepare a management strategy, a project reviewing the state of the hardwood inventory in the area was conducted: this project identified that the existing inventory information for hardwoods was suspect, likely under-estimating the amount and extent of hardwoods in the Kalum-Kispiox region. To determine if the actual extent of hardwoods could be quantified, a project was undertaken to evaluate an area in the lower portion of the Nass TSA. The results of this project identified that hardwood inventory information could be successfully updated, and that there was a significant increase in the amount of hardwoods on the area studied. Extending this project to other hardwood areas was considered a logical next step.

An additional missing part of the equation was the question of whether there would be a demand for these hardwoods. Historically, there has been a demand by larger non-local operators for cottonwood and to a lesser extent, red alder. Only anecdotal information existed about the demand for birch and aspen, generally indicating that these species were limited to local small sawmillers. To prepare a proper hardwood management strategy, the extent of this local sawmilling sector would have to be evaluated.

Due to continued inactivity in the local forest sector, funding from the Forest Investment Account (FIA) was significantly reduced in 2003, and was ear-marked for several ongoing projects. Funding for continuing the hardwood inventory work was no longer available through FIA.

The North West Loggers Association (NWLA) saw value in the hardwood inventory work: there was potentially a new resource, which could result in opportunities for the loggers that make up the NWLA membership. Inclusion of an evaluation of the small-scale wood processors would also be of value to the NWLA membership, as local loggers would likely be carrying out the harvesting activities necessary to providing the logs that the small millers would need.

A proposal to continue the hardwood inventory work and to evaluate the small-scale wood processing sector was prepared by NWLA, in partnership with the BC Ministry of Forests, and 16/37 Community Futures. This proposal was submitted to Human Resources and Skills Development Canada (HRSDC), and approved in 2004.

1.2. Objective

As described in the contract between HRSDC and the NWLA, the objectives for this project are to conduct research, develop and recommend strategies to enhance community capacity for the diversification of the forest industry into harvesting hardwoods and to create employment/ self-employment opportunities for displaced forestry workers in the Northwest Region. The two projects that are the subject of this report are the vehicles used to achieve the objectives.



1.3. Project Activities

As described in the contract between HRSDC and the NWLA, the following information is to be gathered:

Hardwood Inventory Project

- Analyse eight map sheets in the Nass and Cranberry TSAs to ascertain wood quality (pulp versus saw log) utilizing destructive sampling;
- Assess the accessibility of the hardwood stands within the eight map sheets for forest management activities; and
- Estimate stand attributes for each hardwood polygon within the eight map sheets.

Small Scale-scale Wood Processing Sector Study

- Survey a minimum of fifty local small businesses regarding issues related to their long term sustainability and efficiencies;
- Review market opportunities currently available in both domestic and international venues; and
- Determine a skills inventory and conduct a gap analysis of the hardwood skill sets in the Kalum and Kispiox region. Also identify the specific skills required to capitalize on the planned container port

1.4. Planned Outcomes

This report summarises the findings from the hardwood inventory and of the small-scale wood processing study. The specific outcome for the hardwood inventory is:

- Updated inventory information for hardwood polygons.

The specific outcome for the small-scale wood processors study is

- A summary of the small-scale wood processing sector in the Kalum and Kispiox area;
- An evaluation of the factors required for success of the small-scale wood processing sector; and
- Recommendations for bridging the gaps that are preventing success.

The report authors, proponents, and project steering committee agree that the recommendations in this report must be achievable in the short-term.

The intent of this report is to provide recommendations that are achievable and that are focussed on increasing the capacity for diversification of the forest industry, and on creating opportunities for forestry workers in the Northwest Region.

1.5. Project Coordinator and Steering Committee

The initial step was to hire a Project Coordinator, who would organise a steering committee, provide oversight on the Harwood Inventory, and carry out the small-scale wood processing study. The Project Coordinator position was advertised in local newspapers and after a series of interviews, Northwest Timberlands was selected.

A steering committee was formed of local individuals/ stakeholders to provide direction to the project co-ordinator. Steering committee meetings were held approximately once a month, consisting of a report from the project co-ordinator outlining the project deliverables, time lines



and progress made. Additional items of interest were discussed at steering committee meetings. The project co-ordinator also reported on action items and on budgetary issues.

The Steering Committee reviewed the monthly activity reports from the project co-ordinator, and provided feedback and input to the co-ordinators as to the project direction and objectives.



2. Hardwood Inventory

2.1. Methodology

Forest cover maps and aerial photographs of the Nass and Cranberry Timber Supply Areas (TSAs) were reviewed to determine the extent of and concentration of hardwood forests. The 1:20,000 scale map sheets that captured the majority of the hardwood forests were selected for analysis.

Typing of the hardwood forests was done using digital images generated from the aerial photography. This information was then digitally transferred to the forest cover maps.

New hardwood typing was calibrated by conducting ground checks in the field. At the same time, sample hardwood trees were felled and measured to provide a correlation and calibration of the wood quality – saw log versus pulp log.

The updated forest cover information and wood quality parameters were summarised onto maps and summary tables. The volume information is also extrapolated to the TSA level.

2.2. Results

Re-inventory work on eight map sheets was completed: two in the Nass TSA, six in the Cranberry TSA.

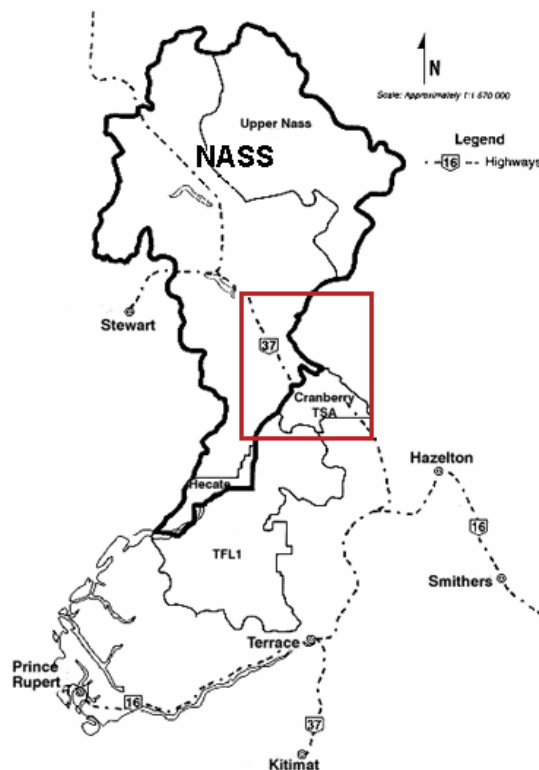


Figure 1: Hardwood inventory area

The typing and inventory work, combined with previous work done (three map sheets in the Nass were done in 2003-04), completes all the required work for the Nass and Cranberry TSAs.

This will allow an update of hardwood inventories at the next Timber Supply Review for these TSAs. The information will be instrumental in determining the potential for issuing hardwood-based tenures.

2.2.1. Nass TSA

The Nass TSA contains 993,150 m³ of available hardwood volume with an average estimated saw log content 250,921 m³. The following table shows the total and available incremental volume resulting from the typing and inventory of deciduous forest polygons in the five map sheets that were examined in the Nass TSA:

Table 1: Total and available incremental volume for the Nass TSA

Species	Total	Available	Saw log Content
Ac (Cottonwood)	308,361	181,766	110,614
At (Aspen)	481,945	391,464	18,325
Ep (Birch)	538,682	419,920	121,982
PI (Pine)	204,264	172,575	111,463
Hw (Hemlock)	168,247	140,452	93,682
BI (Fir)	561,415	426,374	285,465
Sx (Spruce)	908	454	363
Totals:	2,263,822	1,733,005	741,894

2.2.2. Cranberry TSA

The Cranberry TSA contains 1,417,877 m³ of available deciduous volume with an average estimated saw log content of 526,176 m³. The following table shows the total and available incremental volume resulting from the typing and inventory of deciduous forest polygons in the six map sheets that were examined in the Cranberry TSA:

Table 2: Total and available incremental volume for the Nass TSA

Species	Total	Available	Saw log Content
Ac (Cottonwood)	933,247	549,694	329,816
At (Aspen)	866,668	840,823	185,654
Hw (Hemlock)	100,444	91,687	68,765
Sx (Spruce)	60,922	55,375	0
PI (Pine)	36,786	36,353	25,447
Ep (Birch)	33,222	24,032	10,706
Wi (Willow)	5,169	0	0
Dr (Alder)	3,411	3,328	0
BI (Fir)	1,806	1,806	0
Totals:	2,041,676	1,603,098	620,388



2.2.3. Combined Nass and Cranberry TSA Information

The available incremental volume resulting from the typing and inventory of deciduous forest polygons in the eleven map sheets that were examined in the Nass and Cranberry TSAs is 3.3 million m³. The available deciduous component is 2.4 million m³. The following chart and table compares the total, available, and saw log volumes for the combined TSA map sheets.

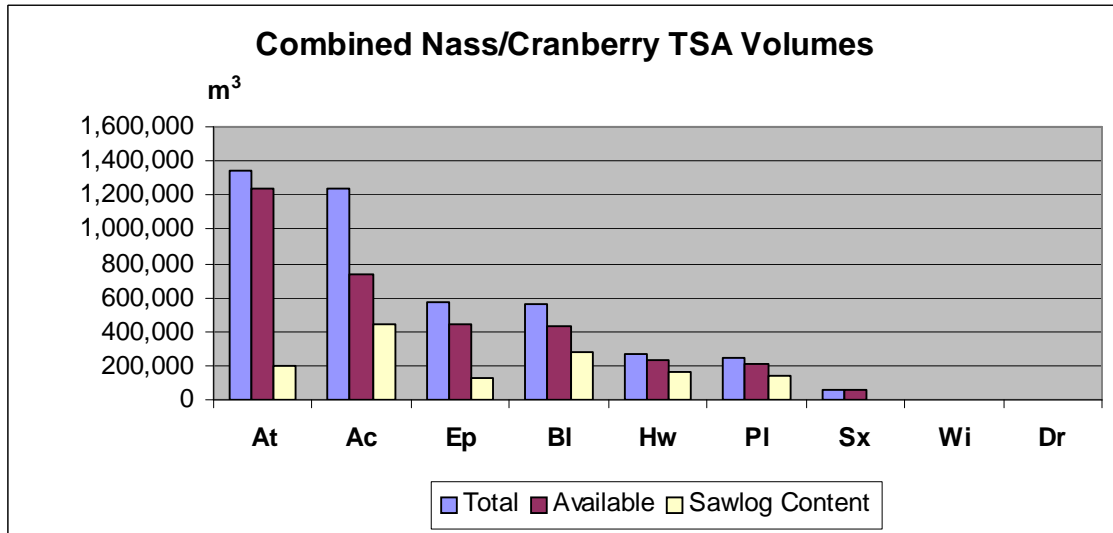


Chart 1: Combined volume of incremental volumes for the Nass and Cranberry TSAs

Table 3: Summary of combined volume of incremental volumes for the Nass and Cranberry TSAs

Species	Total	Available	Saw log Content
At (Aspen)	1,348,613	1,232,287	203,978
Ac (Cottonwood)	1,241,608	731,460	440,430
Ep (Birch)	571,903	443,952	132,688
BI (Fir)	563,222	428,180	285,465
Hw (Hemlock)	268,692	232,139	162,447
PI (Pine)	241,050	208,928	136,910
Sx (Spruce)	61,830	55,829	363
Wi (Willow)	5,169	0	0
Dr (Alder)	3,411	3,328	0
Totals:	4,305,498	3,336,102	1,362,282

2.2.4. Discussion

The re-typing effort carried out through this 2005 hardwood inventory confirms the earlier findings from 2003-04 that there is a significant hardwood component in the forest inventory that has not been previously identified. In addition to this hardwood component, there is also a component of softwood that has also not been captured in existing forest inventories.

The vast majority of the stands designated as harvestable are located near existing road access and therefore well suited to independent, small contractors.

Published provincial Timber Supply Review employment coefficients indicate that one person-year of employment results from each 1,000 cubic meters harvested. Additionally, a spin-off of two more person-years would be created in indirect jobs. Clearly, with over 4 million cubic meters of total volume, hundreds of jobs would result from utilizing this resource.

On the down side, a fair portion of this newly identified resource is made of poorer quality wood, particularly in the hardwoods. This factor, combined with the location of these forest types in a more remote part of the region, means that harvest and transportation costs will make economic access to this resource a challenge.

It is generally recognized that more potential for economically viable hardwood stands exists in the Kispiox TSA. This area holds the most deciduous volume in the area, and is closer to local processors. Confidence in the wood quality assessments and volume estimates reported here will increase greatly as the studies continue through the Kispiox TSA.

2.3. Recommendations

As recommended in a previous hardwood inventory (2004), existing forest cover (FC1) maps should be considered for updating in order to adequately incorporate deciduous stands. Many polygons have different shapes and boundaries when compared with this project's delineation. Additionally, the significant coniferous presence as a part of deciduous polygons has not been adequately accounted for in inventories prior to 2004.

A systematic destructive sampling program within deciduous stands would improve the accuracy of available data by enabling better calibration of saw log content and site index designation for deciduous species.

It is recommended that utilisation of deciduous resources begin in the near future. As the majority of the deciduous volumes are in the upper age classes, it is likely that volumes will continue to decline in the majority of these over-mature stands. In addition, harvesting operations will provide further data on volumes and wood quality which can be interpolated and applied to stands with similar attributes.

A proposal to continue this hardwood inventory work into the Kispiox TSA should be prepared: this is the next logical area in which to conduct this work as this TSA contains at least 26 map sheets with high deciduous populations. The results from a hardwood inventory in the Kispiox will provide improved information for the next determination of an allowable annual cut for the Kispiox.



3. Small-Scale Wood Processing Sector Study

3.1. Methodology

The first step in this process was to describe the small-scale wood processing sector. The upper limit for this sector was set at 25,000 board feet of production per day. The lower limit was set by indicating that a person had to have a mechanical processing line; i.e. the cottage wood-product industry was not included.

A survey questionnaire was developed to gather information on sawmill capacity, employment figures, training requirements, challenges and opportunities. Almost all the information gathered was through on site interviews.

The information gathered through the interview process was summarised, providing a description of the sector. Analysis of the interview information allowed identification and ranking of the challenges that the sector faces, and opportunities for addressing those challenges.

The initial results from the survey questionnaire directed the project coordinator to investigate possible partnerships that could provide support to the small-scale wood processing sector.

A market study was initiated and then curtailed when it was realised that there would be limited value to a poorly-funded market study. Instead, the focus was shifted to developing a list of resources, including market information, which would benefit sawmillers.

Synthesis of the five aspects of the study (inventory of small sawmillers, skills/ training requirements, ranking of challenges and opportunities, potential partnerships, and available resources) resulted in a final evaluation and summarisation of the sector. The result was the development of ten recommendations intended to support the current capacity as well as the planned expansion of the small miller industry. A requirement for the recommendations was that they must be achievable within the short term, i.e. six months.

3.2. Results

3.2.1. Description (inventory) of sector

Fifty-three sawmills were identified for investigation through this study. Of these, forty-eight were confirmed and forty-five were interviewed. Thirty-six of the sawmillers interviewed were cutting for profit.

Chart 2 and table 4 summarize the entire small-scale wood processing sector.



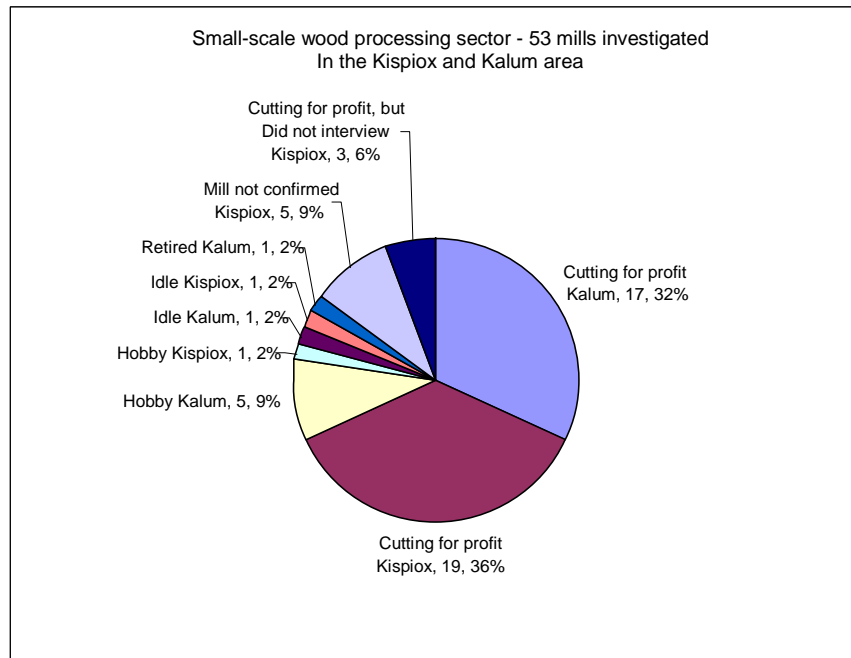


Chart 2: Breakdown of small-scale wood processing sector

Table 4: Summary of small-scale wood processing sector

Current situation (annual basis, all mills)			
<u>Production</u>	Primary* processing currently produces	11,005,000	fbm
	Secondary** processing currently produces	1,050,000	fbm
	Total:	12,055,000	
	<i>Fibre required (at 4.5 m³/mfbm of primary processing):</i>	49,522	m ³
<u>Employment</u>	Primary processing currently supports	73	employees
	Secondary processing currently supports	6	employees
	Total:	79	
	Estimated average employment season: 8 months per year.		
	Full-time equivalent employment:	53	Jobs
Potential (annual basis, all mills, no additional capital investment)			
<u>Production</u>	Primary* processing production capacity	32,380,000	fbm
	Secondary** processing production capacity	13,800,000	fbm
	Total:	46,180,000	
	<i>Fibre required (at 4.5 m³/mfbm of primary processing):</i>	145,710	m ³
<u>Employment</u>	Primary processing can support	133	employees
	Secondary processing can support	29	employees
	Total:	162	
	Expected employment level at capacity: 10 months per year.		
	Full-time equivalent employment:	135	Jobs
Capital investment			
	Primary processing currently capitalized at	\$4,101,000	
	Secondary processing currently capitalized at	\$4,590,000	
	Total:	\$8,691,000	
	Primary processors have plans for an additional investment of	\$1,340,500	
	Secondary processors have plans for an additional investment of	\$1,150,000	
	Total:	\$2,490,500	
* Primary processors break down raw logs to a product (e.g. bandmills, headrigs, shake/shingle mills)			
** Secondary processors get their raw material from primary producers and modify/process to create additional products			



While data was collected from all sawmills interviewed, the remaining results presented here are focused on the “cutting for profit” mills.

As shown in Chart 3, sawmills cut a diversity of products, although not all at once. Product lines and species cut were related to markets and customer demands. All “cutting for profit” saw millers indicated that they would shift the species they cut or their product line to match customer demands.

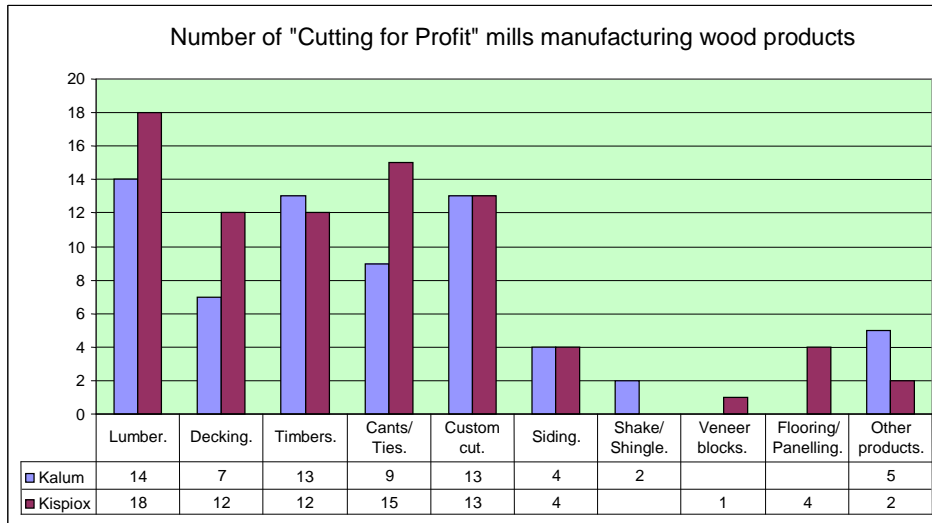


Chart 3: Types of wood products manufactured by small sawmills, and number of mills manufacturing each product

The small-scale wood processing sector consists mainly of primary processors; however, there are three mills that only do secondary processing.

Investment in the small-scale wood processing sector is significant, with overall capitalization of \$8,219,000 in the “cutting for profit” mills. In addition, these mills have plans for additional expansions worth \$2,460,500.

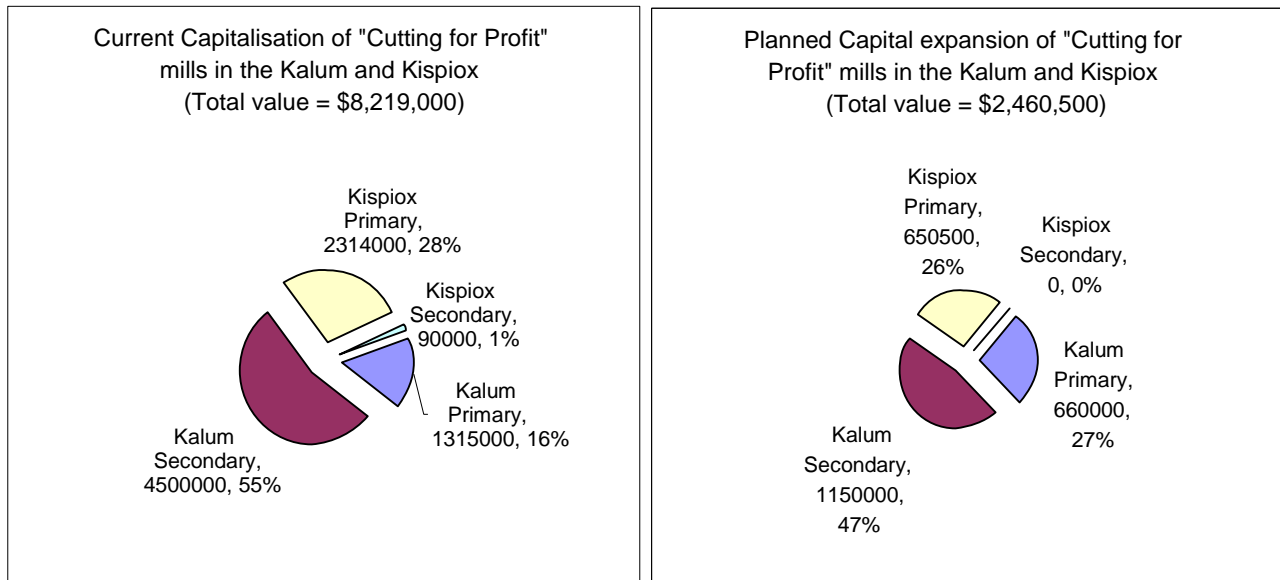


Chart 4: Current and Planned capitalization of “Cutting for Profit” sawmills in the Kalum and Kispiox

At their current level of cutting, the annual production of cutting for profit mills is 11,895,000 board feet (fbm). If the mills were to run at capacity this total increases to 42,540,000 fbm (see Chart 6). Employment in this sector is currently at 78 jobs over an average season estimated at eight months: this converts to the equivalent of 52 full-time positions. If the cutting for profit mills were to reach their capacity, employment would jump to 141 jobs on a ten-month season, or 117.5 full-time positions. Chart 7 shows employment by the number of actual positions: full-time equivalent employment would follow the same trend, with a relatively larger increase in the jobs at capacity.

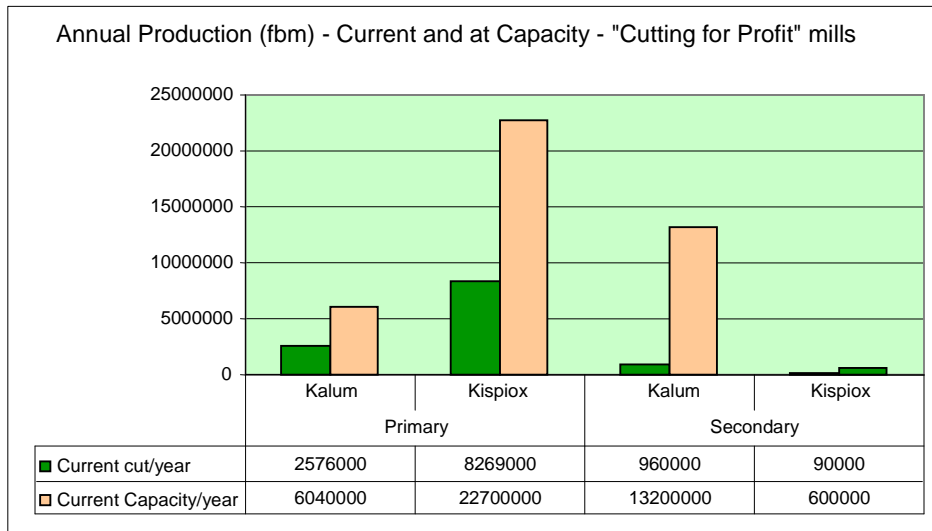


Chart 5: Annual production of small sawmills - Current and Capacity

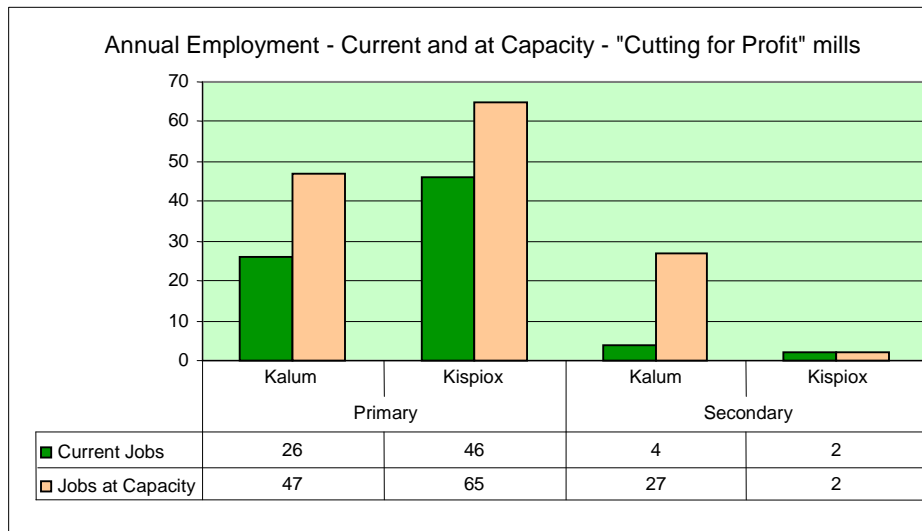


Chart 6: Annual employment by small sawmills - Current and Capacity

3.2.2. Analysis of gaps, challenges, and opportunities

Through the interview process, sawmillers provided information on what they perceived to be their strengths and limitations. They also were asked to indicate what items they would change that were within their direct control, and what they would change for items that were outside of their direct control.

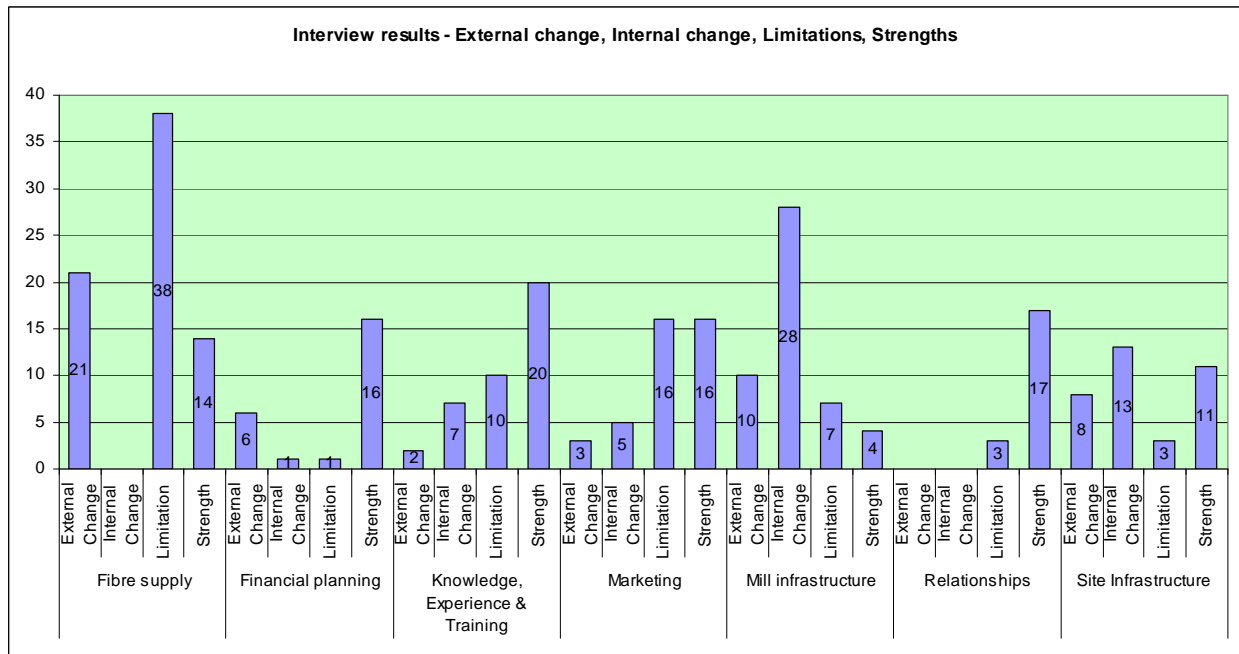


Chart 7: Sawmillers’ strengths, limitations, and the internal and external changes they would make.

In addition, sawmillers were also asked to score certain factors that could influence their success.

Overall, the identified gaps fall into four categories: Fibre Supply, Business Planning, Continual Improvement, and Marketing.

3.2.2.1. Fibre Supply

The most common limiting factor identified for the small sawmill industry is fibre security. At the current level of production, sawmillers are consuming approximately 48,000 m³ of saw logs annually. A consistent finding from the interviews was that many mills are operating at less than capacity, most often due to an inconsistent supply of quality logs. Logs need to be of the right quality, and need to be delivered to the market place in a timely and consistent manner.

To achieve full capacity will require a timber supply of over 127,000 m³ of saw logs. This indicates a significant gap.

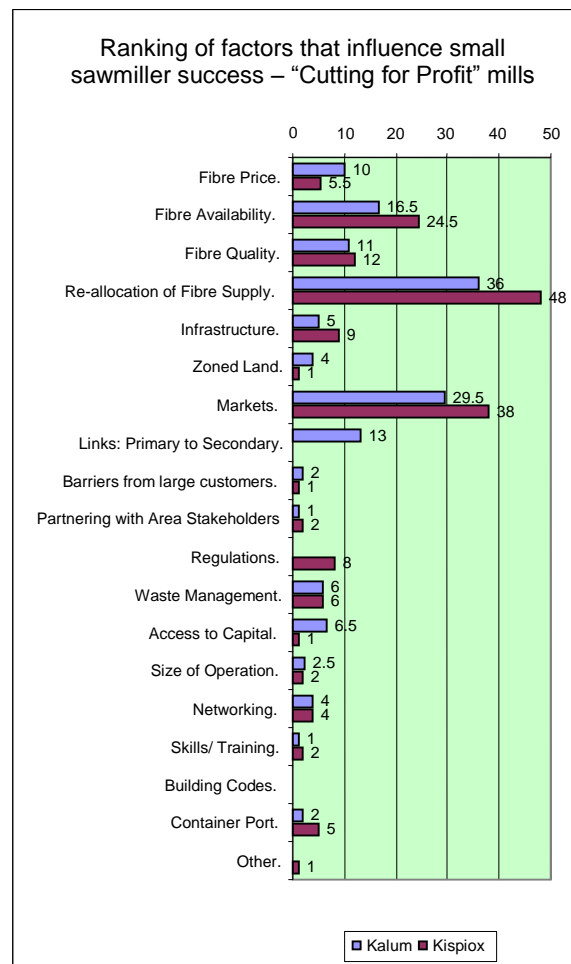


Chart 8: Summary of sawmillers’ own ranking of factors that can influence their success

Challenges to closing this gap include:

- Volume of available timber reaching the market place.
- Poor quality of available timber stands.
- Economic inaccessibility of available stands (due to poor overall quality, excessive cash flow requirements, or inability to process timber within regulated time frames).
- Relationships with potential suppliers (or lack thereof): current fibre agreements, perceptions that small operators cannot or will not pay market price for logs, or a resistance to putting together small sales, can all exclude small operators from access to logs.
- Present harvest levels
- Current allocation of fibre supply

Opportunities that may be created by closing this gap include:

- Industry operates at or near capacity
- Jobs maximized
- Growth and economic expansion become possible

3.2.2.2. *Business Planning*

Review of the input received from sawmillers indicates that there is a knowledge gap with respect to business planning. Millers have a clear understanding of the milling process – it is a hands-on process where successes and failures are quickly identified – they know their strengths and weaknesses, and have plans to change and improve things where they can. On the other hand, while millers indicated a level of business experience, the lack of items identified for change or improvement with respect to business planning indicates that there is a knowledge gap.

Business planning and an understanding of the synergies that can be developed are more nebulous than the day-to-day activity of running a mill.

Challenges to closing this gap include:

- Current knowledge of available business planning tools.
- Lack of access to product and marketing analyses.
- Understanding the importance of synergies and relationships.

Opportunities that may be created by closing this gap include:

- Increased efficiencies and improved bottom line.

3.2.2.3. *Continual Improvement*

The small sawmilling industry prides itself on producing a quality product that meets their customers' expectations. This is identified as a strength amongst many sawmillers. The small-scale wood processing sector does not compete with high production dimension mills that



produce commodities. The competitive edge for the small milling industry is to produce **specialty** products of high quality. Products are not mass produced, are commonly custom orders meeting special demands, and there is personal attention (usually by the owner) to the end product.

While the importance of quality is widely recognised, there is still a gap in product knowledge, milling techniques, and quality assurance. Several millers identified a need for improving their knowledge and training in product quality and/or milling techniques. At times, millers expressed concerns with being unable to sell certain product lines (downfall). While all products are not saleable, assuring the quality of products from the small-scale wood processing sector is essential for the survival of this custom-cutting niche. A related theme, identifying a desire to better understand lumber grading, is also an indication of this gap.

Challenges to closing this gap include:

- Training in lumber grading
- Networking with other sawmillers on products, product quality, and milling techniques
- Feedback from customers on product quality

Opportunities that may be created by closing this gap include:

- the ability to sort and therefore market a variety of grades ;
- the potential to increase the average sale price of all lumber sold;
- The potential to increase the consistent quality of products, making them more saleable.

3.2.2.4. *Marketing*

Sawmillers often market their products through obvious methods – pick up the yellow pages and start calling potential customers, talk to others and see who they're selling to, rely on previous relationships and customers to spread the word of the millers' products and quality. This can be effective, often resulting in one or two larger customers. However, this leaves the miller at risk if circumstances change. In addition, the local market place is likely filled at the current level of production, and if millers wish to expand to their capacity, new markets and customers must be found.

If the fibre security gap is closed, a marketing gap will still exist: the addition of 30 million board feet of product will, in all likelihood, flood local markets. Therefore, sawmillers will have to find new, additional markets for their products, or new customers to cut custom products for. Most marketing is now done through electronic means.

Challenges to closing this gap include:

- Relatively low use of computers as a networking and marketing tool.
- Current awareness of the value of relationships with sawmillers and potential partners
- Little organization of the small sawmilling sector, particularly in the Kalum Area

Having access to market resources, especially through internet access, will help close this gap. Familiarisation with computers, email, and accessing the internet is necessary.



Opportunities that may be created by closing this gap include:

- Increased knowledge of markets and products
- Increased sales with potentially higher values
- Results in consistent production, cash flow by securing reliable markets

3.2.3. Market study/ Resource research

A market study was initiated, with the objective of reviewing potential products from local forests and the market for those products. It was quickly determined that the time and information required to carry out this study was beyond the scope of this project. At the same time, interviews with sawmillers were identifying an information gap with respect to market and resource information (see previous section). As a result, the focus was shifted to researching available resources that would benefit sawmillers.

A resource list provided in the *Small-Scale wood Processing Sector Study* evaluates 92 websites that are relevant to the small-scale wood processors. Digital versions of the hardcopy list will be available to the small sawmillers.

The resource list also contains a quick lesson on how to search the internet, helping address the knowledge gap with respect to accessing resources.

3.2.4. Summary of required skill sets (for Hardwood, Container port)

3.2.4.1. *Hardwood Milling Skill Requirements*

The skill sets for the small miller are extremely varied. In many cases the small miller is called upon to have the skills to perform all the functions from the forest to the market. The small miller commonly harvests, manufactures and markets his product to a large diversity of customers. Through the interviewing process, the skill sets were determined to be:

- Knowledge in the operation of a viable business
- Harvesting experience (equipment operation)
- Knowledge of Forest Practices
- Knowledge and Understanding of a wide range of government regulations
- Knowledge of log specifications/scaling/current values/ and sources
- Knowledge of manufacturing equipment/ operation and maintenance
- Knowledge of lumber grades
- Knowledge of production costs
- Knowledge of the market place (logs and Products)
- Knowledge of various transportation systems and the associated limitations and costs

Of these skill sets, the study identified the following needs to support the sector in expanding the knowledge base of its owners and workers.

- Business skills/business plans/ business communication/bookkeeping
- Lumber grading (includes all products)



- Market development/ Marketing techniques
- Computer Training
- Kiln Operation and Drying Techniques- Developmental
- Basic Log Scaling

3.2.4.2. *Containerization Skill Requirements*

Containerization coming to the port of Prince Rupert brings economic advantages to this region not available elsewhere. Containers are how the world trades. Having access to port facilities that can load and ship containers with local product can be the difference to the viability of a business.

Although the first thought is the great markets of Asia that become available, the markets that are opened up to the interior of North America also become that much closer.

Containers will flow each way.

Although we assume containerization will provide an advantage for opening up markets due to lower freight costs and accessibility, there is not a clear understanding in the Kalum/ Kispiox area of those costs or of operational technicalities that may require further infrastructure.

The authors agree with the recommendation of the City of Terrace's Community Task Force on Forestry that the city, through the Terrace Economic Development Authority (TEDA), organise forums and investigate business opportunities in the Terrace area related to containerization. i.e.: a container stuffing facility for export logs, wood products.

TEDA is interested in facilitating these forums and is seeking to identify potential stakeholders to assist in the organizing and implementation and funding of the forums. TEDA may act as the lead proponent in support of forum development. For the local economy to develop markets they need to know their raw material, manufacturing, and transportation costs. With that information they can adequately quote their products with delivered costs.

3.2.5. Partnerships

Partnerships, whether formal or casual, can exist within any or all of the four primary aspects of the small-scale wood processing sector:

- Business Planning
- Fibre supply
- Manufacturing
- Marketing

The Small-Scale Wood Processing Sector Study identified several potential partners to the small scale sawmiller. They are organised according to their best fit within the primary aspects of this sector.



3.2.5.1. Business Planning

16/37 Community Futures Development Corporation (*business planning and training services*)

16/37 Community Futures Development Corporation (16/37 CFDC) offers one-on-one assistance for entrepreneurs to learn or improve their business skills. Sessions are held in various communities. Contact the 16/37 CFDC office in Terrace for the next available session.

Skill training through 16/37 CFDC is available in the following areas:

- Basic Bookkeeping for small business
- Credit and collections for small business
- Basic marketing for small business
- Advertising and promotion for small business
- Organisational skills for the entrepreneur
- Getting and keeping control of your business
- Effective business communications
- Business plan development

These services are **offered free of charge** to individuals or groups. Many of the skills training would be an asset to the small miller.

R.K. Morrison & Associates (*business and financial planning services*)

R.K. Morrison & Associates is a local company providing business services to the entrepreneur. These services are for a fee. Services include but are not limited to:

- Development of business plans
- Identification and research for potential funding sources
- Assist in funding applications
- Management services support
- Provides a free consultation/ flexible hours

Northwest Community College (*Training services*)

Northwest Community College, through their Continuing Education Program, offers a number of short courses that were identified from the sawmiller questionnaire as training needs. These courses are available on a continuing basis designed to meet the general requirements of the community at large, but will also meet the specific needs of some small saw millers.

Northwest Community College Continuing Education Program will tailor a course for a group, on any subject. They will pursue the delivery of any specialized course for the small sawmiller. The one stipulation is that all costs must be recovered. *An individual or group needs only to contact the continuing education department and present the course or seminar that they would like to see.* The department will do research on the topic to see if there is an existing course, identify potential instructors and deliver a course based



on a minimum enrolment. As identified by the small sawmiller questionnaire, courses that may be of interest for presentation include

- Lumber Grading(Hardwood or Softwood)
- Kiln Drying Techniques
- Log Scaling – (introduction)
- Sawmill layout and mechanization

In addition to tailoring courses for specific needs, NWCC also has a curriculum of established courses that are continually offered:

Computer Training (Introduction to Computers, Internet /E-mail)

Accounting (Intro to Accounting, Simply Accounting)

Health & Safety (First Aid- Level 1 and 3, Transportation Endorsement)

Further information on course content, cost, and schedules can be obtained from the Continuing Education Calendar. This publication is updated bi-annually and is available at no charge from either the Terrace or Hazelton campus of Northwest Community College, or on the internet at www.nwcc.bc.ca.

HRSDC-Human Resources Development Services Canada (*employment services*)

Human Resource Services Development Corporation offers three wage subsidy programs that may be of interest to the small miller. Each program is designed to meet specific goals and objectives and applications are assessed on that basis. The following gives a brief synopsis on each program. For more information contact the local HRSDC office. Or visit their website

Summer Career Placement Program (Wage subsidy to employers up to 50% of costs)

Targeted Wage Subsidy Program (Wage subsidy for a recent EI recipient)

Opportunities fund (Assistance program for persons with a physical or mental disability)

First Nations (*Access to capital*)

Joint ventures conducted on Reserve lands have tax advantages and benefits available. Joint ventures with First Nations provide the opportunity for funding through various programs such as TRICORP and the Aboriginal Business Corporation.

The Moricetown Band (Wet'suwet'en), the Kispiox Band (Gitxsan), and the Gitanyow First Nations have all entered into joint venture agreements. Both the Kitsumkalum and Kitselas First Nations have confirmed to the authors that they have an interest in joint ventures. The Lax Kw'alaams has had discussions with various groups in their recent efforts to acquire TFL 1, indicating that they too are open to joint venture possibilities.



3.2.5.2. Fibre Supply

Kalum Ventures Limited Partnership

Kalum Ventures is a First Nation corporation that holds non-renewable forest licences with a total cut of 80,000 m³ per year. They are interested in developing joint business ventures with both aboriginal and non aboriginal individuals and corporations. Kalum Ventures' objective is to create a viable business entity, achieving maximum value and employment opportunities for Kitsumkalum Band members from the forest resource.

- Kalum Ventures can offer land on reserve for joint ventures with available 3 phase power
- Kalum Ventures can offer a supply of raw material to small millers under a joint venture agreement
- Kalum Ventures is open to discussions regarding opportunities for Joint ventures

Bell Pole Company

Bell Pole Company operates a forest licence in the Kispiox Timber Supply Area with operations north of Kitwanga, near Gitseguecla, and in the Suskwa valley. Bell Pole presently sells fibre from this tenure on the open log market. They would be interested in selling volume to the small miller based on current market prices. For log sales contact Bell Pole's Terrace office. Bell Pole also has a tenure located in the Terrace area which is managed and marketed through A&A Trading.

A&A Trading Limited

A&A Trading is a log marketer and exporter that manages the Terrace tenure of Bell Pole Company. A&A is also partnered with the Kitselas First Nation (through **Kitselas Forest Products Ltd.**) on their non-renewable Forest licence. A&A has confirmed that they are willing to trade and sell logs, and are open to identifying smaller patches of timber for sale to the local market.

3.2.5.3. Manufacturing

Kyahwood Joint Venture

Kyahwood is a joint venture operation between the Moricetown Band (Wet'suwet'en First Nation) and Canfor (Canadian Forest Products). The plant, located in Moricetown, produces finger jointed frame grade lumber. In addition they have a planer that custom planes for Canfor's dimension mills. Kyahwood is open to discussing terms in which custom planning services could be supplied to the small milling industry

Kitwanga Lumber Company

Kitwanga Lumber Company is a dimensional mill located in Kitwanga producing construction grade whitewood and cedar lumber. They are interested and open to ideas that would benefit the small milling industry and their operations. Co-operative initiatives may include log trade agreements, marketing synergies, and custom planing and drying.



3.2.5.4. Marketing

McDonald Inspection Services

McDonald Inspection Services, based in Campbell River, provides lumber grading certification. Through discussions with the manager, they are interested in providing that service to northwest sawmillers. To minimize costs they would be willing to take a retired lumber grader and provide one day of training so that he may do lumber grade certification. The inspector can not be anyone presently employed directly with a wood product manufacturer.

This certified grader could then inspect lumber and certify as required. Lumber could be air dried to < 19% to meet construction requirements. Kiln Dried Construction lumber is also commonly graded to < 19%.

By grading and certifying lumber, a local market may open for construction lumber, providing an outlet for side lumber and downfall. The steps necessary to grade /certify lumber are as follows:

- Small sawmiller community identifies a local retired certified lumber grader interested in occasional work.
- McDonald Inspection Agency supplies one day of training to grade stamp inspector.
- Individual mills would apply to McDonald Inspection Agency for grade certification stamps.
- Lumber would be graded by a certified lumber grader.
- The graded lumber would then be inspected by the local retired grader that has been certified to inspect on behalf of McDonald Inspection Agency, and grade stamps would be applied accordingly. Co-ordinate with other mills to defer local travel costs.

3.3. *Recommendations to address gaps and barriers to success for the small-scale wood processing sector*

1. Ensure that timber is available in smaller blocks to provide an opportunity for small operators to enter the market for wood.
2. Establish flexibility in setting the terms of BCTS Timber Sales.
3. Establish a “Virtual Log Yard”.
4. Set up Log Holding Areas.
5. Expand the number of Woodlots in the Kalum and Kispiox.
6. Provide for the expansion of 3-Phase Power infrastructure.
7. Conduct an assessment of the Kalum/Kispiox fibre basket, with particular focus on fibre quality wood.
8. Develop a strategic marketing plan for northwest wood products.
9. Establish an organisation of small-scale wood processors.
10. Upgrade the skill sets of small-scale wood processors.



These recommendations are meant to be achievable in the short-term (i.e. within the 2005 calendar year). The following sections provide more specific details on the recommendations. Action plans for each recommendation are provided in the *Small-Scale Wood Processing Sector Study* report by Northwest Timberlands (2005).

3.3.1. Ensure that timber is available in smaller blocks to provide an opportunity for small operators to enter the market for wood.

Specifically: That the policy gap be addressed between the Ministry of Forests and BCTS in regards to the delivery of small volumes of wood between 50 m³ and 7000 m³.

Discussion:

This gap has been identified and discussed with the Minister of State for Forestry, Roger Harris, Kalum Forest District Manager Rick Manwaring, and BCTS Skeena Business Manager Norm Parry. There is recognition that this gap is specific to BC Timber Sales, as other licencees are not constrained in the size of blocks that they will offer for sale. This gap has been described as a lack of capacity within BCTS and is also driven by internal BCTS policy that prevents delivery of smaller blocks within the BCTS stand profile to the market place. There is also recognition at the local BCTS level that this gap is affecting both the province in its ability to generate revenue, and the small miller in securing fibre supply.

Benefits:

- The opportunity for the crown to generate additional revenue
- Increased opportunity to secure fibre for small millers
- Increased opportunities for small and medium sized logging companies

3.3.2. Establish flexibility in the terms of BCTS Timber Sales

Specifically: That the term of BCTS Timber sales be flexible to allow the small miller to access an equal portion of the sale per year, up to a four year time period.

Discussion:

Currently, the term of BCTS timber sales requires the relatively quick removal or completion of the sale, usually one to two years. A significant penalty applies to timber sales that are not harvested within the established term. Having the ability to spread the harvest over four years would allow small miller to compete for sales that are currently out side of their ability to manage, and to secure a multi-year fibre supply. This will emulate the process that is occurring in the forest industry, where major licencees have the opportunity to harvest approved cutting permits within a four year time frame without penalty.

Concerns have been raised with respect to ensuring that timber sales are advertised and awarded in an equitable fashion, and that silviculture obligations on a timber sale that is harvested over a longer period of time do not exceed the regeneration delay time period. These are valid issues, but are not insurmountable: one possible method to ensure that the terms of Timber Sale Licences are set in a fair, equitable, and efficient way is provided in Appendix H.



Benefits that will result from following this recommendation:

- Provides longer term fibre security to small millers.
- Increases small sawmillers' capacity to either maintain or expand their business with a secure raw material.
- Increases small sawmillers' ability to be dependable suppliers of their products.

3.3.3. Establish a "Virtual Log Yard"

Specifically: That a pilot project be initiated to provide open access for the local sales of logs.

Discussion:

As another means of addressing fibre supply issues, this recommendation is intended to link small scale mill owners to the logging community. Several methods of connecting these two were considered: electronic buy-sell bulletin boards (internet or email based), local bulletin boards, radio advertisement, newspaper notices. After consideration of the various factors, it was determined that in the short-term, a newspaper-based bulleting board was the best candidate. There may be no need for a long-term solution: if the newspaper-based advertisement is successful, relationships between the small miller and local log suppliers will be built and this delivery mechanism will no longer be required.

Benefits that will result from following this recommendation:

- Increased opportunity for local logging companies to sell logs, particularly small sorts that may not have immediate market opportunities (i.e. dry sawlogs/ small volumes)
- Increased access to logs for the small miller providing opportunity to secure fibre

3.3.4. Set up Log Holding Areas

Specifically: That approved scale sites be used for log holding areas.

Discussion:

Local loggers have indicated that it would be a benefit from time to time to use approved scale sites for holding areas of small or presently unmarketable logs generated through harvesting activities. These logs may eventually be sold and moved offsite or bought by the individual scale site holder. Many of the small-scale wood processors have approved scale sites, so by bringing these small sawmillers and local loggers together, the necessary contacts will be made to facilitate temporary log storage.

Benefits that will result from following this recommendation:

- Allows clean-up and completion of harvest areas by moving small volumes of presently unmarketable wood, or wood that may otherwise be stranded due to timing constraints.
- Increased access to logs for the small miller providing opportunity to secure fibre.

3.3.5. Expand the number of Woodlots in the Kalum and Kispiox

Specifically: That through the creation of additional woodlots and the expansion of existing woodlots in the area, the diversification of forest tenures and potential sources of raw materials to the small-scale wood processing sector will be enhanced.



Discussion:

All of the small sawmillers that operate woodlots indicated the woodlot as a strength: they have a reduced reliance on outside fibre sources for the success of their business. The woodlot also provides diversification to their business and is commonly tied to other uses of the land. Woodlots within this region comprise a small portion of the total allowable annual cut (AAC) but contribute to a large diversity of forest users.

Re-allocation is viewed by most small sawmillers as a positive step in improving access to fibre. Although this one program is not the only answer to fibre supply, it is one means of strengthening and diversifying the mechanisms by which fibre is delivered to the market place.

There are plans for additional woodlots in the Kispiox; however, there has been reluctance on the part of the Kalum Forest District to expand the woodlot program in the Kalum. This reluctance seems to be based on a provincial policy or formula that dictates the balance of woodlots, community forests and other tenures. However, in this region, significant undercut¹ volume is available, and could be used to ensure this recommendation is carried forward: 150,000 m³ of undercut could allow a 1,500 m³ woodlot to operate for 100 years. Forest District Managers are encouraged to use any endorsements of this report by local, regional, or provincial bodies in order to facilitate any necessary policy changes to ensure that the action plan can be carried out.

Benefits that will result from following this recommendation:

- Increases diversity within the local economy.
- Provides opportunity to increase security of fibre for small sawmillers.

3.3.6. Provide for the expansion of 3-Phase Power infrastructure

Specifically: That the necessary planning and preparatory work be conducted to allow the support and funding of an expansion of 3-phase infrastructure within the region, thereby supporting economic growth and development.

Discussion:

The lack of 3-phase power infrastructure is recognized in this study as a limiting factor if expanded growth potential is to be realized. As most of the smaller mills are powered by small engines, the expansion into kilns, planers, shapers and moulders is more difficult and costly than operating with 3- phase both on capital costs and operating costs. This limiting factor does not apply to just small sawmills: there are other light industries that could benefit from 3-phase power.

It is not reasonable to expect that 3-phase power infrastructure will be provided to all the existing small sawmill sites. However, if there was a cohesive long-term plan for where 3-phase power is intended to go, and if the needs of existing industry (including the small-scale wood processing sector) were considered in that plan, then small sawmillers could plan their expansions and growth to tie in with the expansion of 3-phase power.

Benefits that will result from following this recommendation:

- Encourages economic development within the region.
- Supports existing businesses by reducing capital and operating costs.

¹ Undercut volume occurs when the total allowable annual cut (AAC) from a forest tenure is not harvested, and is the difference between the AAC and the actual volume harvested.



3.3.7. Conduct an assessment of the Kalum/Kispiox fibre basket, with particular focus on fibre quality wood

Specifically: That the opportunities for the potential uses of the regional Fibre basket be assessed and evaluated through an expert overview study, giving specific attention to potential uses of fibre-quality wood.

Discussion:

The City of Terrace's Community Task Force on Forestry recommended that an expert overview study be conducted to assess the potential of economic use of the region's low quality fibre. With the demise of New Skeena Forest Products and its associated tenures and facilities, there is an opportunity to consider options for utilising the entire regional wood profile. The focus on fibre-quality wood is needed as the structure of the forests in the region is such that fibre-quality and lumber-quality wood are not found separately: to access lumber-quality wood, fibre-quality wood must also be harvested. Therefore, by finding opportunities for the fibre-quality wood, the availability of lumber-quality fibre for primary manufacturing and value added wood products will be increased. This would strengthen the small millers' access to their raw materials.

Benefits that will result from following this recommendation:

- Improved confidence in investment decisions.
- Regional economic diversification.
- Significantly improved security for all people of the region.

3.3.8. Develop a strategic marketing plan for northwest wood products

Specifically: That local government support the development of an overall strategic marketing plan for northwest wood products.

Discussion:

The City of Terrace's Community Task Force on Forestry recommended that workshops, tours, or presentations be conducted to aid in marketing; this recommendation would be more effective if it was being carried out under a cohesive and strategic marketing plan for the region.

Municipal governments (Terrace, Kitimat, Stewart, and the Hazeltons) and the Regional District of Kitimat-Stikine can create opportunities within their own borders through the development of an overall strategic marketing plan. Given the predominance of the local forestry resource in the regional economy, a narrowed focus on forest products marketing would be appropriate. This would in turn provide support to the small-scale wood processing sector in the area.

Appendix I provides a preliminary outline of a strategic marketing plan for BC's Pacific Northwest. In the short-term, the following workshops or forums will support the development of markets for products from the small-scale wood processing sector in the northwest:

- Non-commodity markets – provide information on global markets for non-commodity (higher value) wood products and the exporting rules that apply to these products.
- Containerization – provide information on technical aspects of the containerization process.



Benefits that will result from following this recommendation:

- Promotion of the local forest sector and the special talents that the small-scale wood processing sector.
- Improved product development and increased product sales.
- Will ultimately result in increased log requirements, benefiting local logging companies.

3.3.9. Establish an organisation of small-scale wood processors

Specifically: That the small-scale wood processing sector organize it to effectively promote and strengthen its industry.

Discussion:

The study confirmed the value to business and individuals in organizing in associations and groups. The benefits in knowledge exchange, synergies in marketing, shared equipment, log purchasing power, training delivery and service procurement are invaluable. In addition, an organization can provide a single, significant voice on common concerns and challenges. For instance such an organisation could monitor and follow-up on the progress of the ten recommendations in this report.

Benefits that will result from following this recommendation:

- Provides knowledge exchange and networking opportunities for the small sawmilling community.
- Promotes the establishment of relationships that will result in business synergies and efficiencies (e.g. increased purchasing power).
- Provides a significant single voice when dealing with local, regional, and provincial agencies.

3.3.10. Upgrade the skill sets of small-scale wood processors

Specifically: That the small-sawmill sector initiate steps to access training to upgrade their skills through identified potential partnerships.

Discussion:

This study found that many sawmillers could benefit from additional knowledge. A range of training and business support organisations were investigated, and a number of potential partners have been identified that can provide free support or training specifically tailored to sawmillers' needs. Lumber grading, milling techniques, lumber certification, and business skills were all identified as items requiring training. Some training can be accessed individually, as in the case of the development of a business plan, but there are also those items that are much better served in terms of costs by accessing them with a larger group.

Benefits that will result from following this recommendation:

- Improved skills and a higher level of business expertise related to: Marketing; Quality of product; Safety; Manufacturing techniques; and Business organization (e.g. book keeping, cost control).



4. Conclusion

The Provincial wood processing industry was founded by the enterprising small millers that operated until the 1960's in every corner of the province. In some locations the number of small mills were too numerous to count. Over the years these numbers dwindled in favour of the large forest companies that were given extensive cutting rights in exchange for large investments of capital and the establishment of local processing facilities that created local jobs. This "social contract" resulted in the development of local and regional economies. Over time, this concentration of cutting rights created local monopolies in the forest sector, and this made communities completely reliant on the success or failure of these large corporations.

In the Northwest, the failure of Skeena Cellulose Inc. in 2001 made us all too aware of the impact of a corporate failure on our economic well-being. The region experienced a mass exodus of workers and their families. Municipalities, business, and families were put into financial hardship. Property values plummeted, bankruptcies occurred, and life savings evaporated. The reliance on one entity for our social and economic well being was a dangerous course to follow.

Through all this, the resilience of the local people has persisted. The workers and their families that have remained in the area have struggled to rebuild and look for new ways to provide a living. The rebirth of the small sawmilling industry, providing capital investment and real jobs is a testament to that resilience.

This "new" industry is a significant contributor to the regional economy. It has almost as many current jobs as that planned for one shift at the "new" Terrace Lumber Company. It has the capacity to surpass the total number of sawmilling jobs that could potentially occur at Terrace Lumber Company provided with the right tools and access to the fibre basket.

This has occurred through the entrepreneurial spirit of the local small sawmilling community. There has been no fanfare, little government support, limited recognition of the industry's contribution, and a lack of appreciation of the industry's potential.

This report is intended to change that.

The hardwood inventory describes a previously unidentified hardwood resource, and takes a large step towards bringing a new supply of timber to the market place, and the subsequent job creation that that means. Work needs to continue into the more deciduous growing area of the Kispiox, so that allocation of the resource becomes possible.

This report has identified the major gaps and barriers that are preventing the success of this sector. It has made recommendations and identified actions that will close some of these gaps and remove some of these barriers.

The small-scale wood processing sector in this region has created jobs that provide high value custom products to the domestic as well as the international marketplace. The diversity of this sector results in long-term sustainable jobs that can be relied on over time, and that are not subject to the failure of a single entity. The potential capacity of this small-sawmilling industry is significant, creating jobs at almost double the provincial average for the sawmilling and value-added sector: the equivalent of 82 new full-time jobs.

The politicians that enact legislation, the government workers that develop and implement policy, the businesses that could potentially partner with this sector, need to take notice. This



industry needs their support. It needs their recognition of this sector as a significant economic contributor to our region if it is to fulfill its potential.

It needs their commitment to take action and make the changes that will remove the barriers to success.

