SOCIO-ECONOMIC ASSESSMENT
NORTH COAST TIMBER SUPPLY AREA
TIMBER SUPPLY REVIEW 2005

VERSION 2

Prepared for:

The North Coast DFAM Group

FIA Project NC 6466 001

Prepared by:

Timberline Forest Inventory Consultants Ltd.

Victoria, B.C.

Project Number: 4061918

June 2006

This document was prepared to support an allowable annual cut determination by British Columbia's Chief Forester. To learn more about this process please visit the following website:

http://www.for.gov.bc.ca/hts/

Or contact:

Forest Analysis and Inventory Branch
Ministry of Forests and Range
P.O. Box 9512, Stn. Prov. Govt.
Victoria, B.C., V8W 9C2
Telephone: (250) 356-5947

Timberline
Forest Inventory Consultants

June 20th, 2006

File: 4061918.3.1

North Coast DFAM Group
c/o International Forest Products Ltd.
#311 – 1180 Ironwood Road
Campbell River, B.C.
V9W 5P7

Attention: Ian Robertson, RPF

Reference: North Coast TSA Socio-Economic Assessment

Dear Ian,

Enclosed please find the socio-economic assessment for the North Coast TSA in support of the 2004-2005 timber supply review process. Updates have been made based on feedback from Ministry of Forests and Range staff.

Please review the report and contact the undersigned if you have any questions or comments. Thank you for your support during the preparation of this report.

Yours truly,

TIMBERLINE FOREST INVENTORY CONSULTANTS LTD.

Erik Wang, RPF
Senior Resource Analyst

Suite 601 - 1207 Douglas Street, Victoria, BC V8W 2E7
Tel: (250) 480-1101 ▪ Fax: (250) 480-1412
www.timberline.ca

ACKNOWLEDGEMENTS

We would like to acknowledge the support and contributions made by the following organizations and individuals:

B.C. Ministry of Forests & Range	
B.C. Ministry of Sustainable Resource Management	
International Forest Products Ltd	
Interpac	
Triumph Timber	
Davide Cuzner	
Linda van Barnevelde	**Ookpik Natural Resources Consulting**

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

The Chief Forester of British Columbia must consider the impacts on local communities when determining the allowable annual cut (AAC) of a timber supply area (TSA). This socio-economic assessment compares the current economic and employment opportunities in the North Coast TSA with the proposed opportunities resulting from the new timber supply forecast (*Timber Supply Analysis Report North Coast Timber Supply Areas Timber Supply Review*, Timberline March 2006). In order to make this comparison, the current economic opportunities in the TSA must be understood.

This report includes:

- A profile of the North Coast TSA economy, highlighting the contribution of the forest industry; and
- A description of the North Coast TSA forest industry and the contribution of the TSA's timber supply.

A summary of the socio-economic implications is not required for the North Coast TSA because the Base Case harvest level indicates that the current AAC will be maintained 40 years into the future. Therefore, as outlined in the *Interim Guidelines for the Preparation of Socio-Economic Assessments for Timber Supply Reviews* (MoFR, 2003) summary profiles for the TSA and industry are the only requirements for this report.

Revisions to the apportionment of the AAC for the North Coast TSA were introduced in December 2005. This new apportionment is reported but all of the employment and income data reported is based on the apportionment between January 2001 and November 2005.

It is important to note that the North Coast and Central Coast Land and Resource Management Planning (LRMP) processes are complete for the North Coast TSA. On February 7th, 2006 the B.C. government announced land use decisions for the LRMP areas. The land use decisions provide final land use zoning for protected areas, biodiversity areas and ecosystem based management operating areas.

Management direction for the protected areas and biodiversity areas does not allow for commercial logging, in effect making these areas a no harvest zone for timber supply purposes. Therefore, removal of these areas from the timber harvesting land base will have an impact on long-term timber availability, which will subsequently affect the socio-economic conditions for the North Coast TSA.

2.0 NORTH COAST TSA PROFILE

2.1 Overview

The North Coast TSA makes up a large portion of the North Coast Forest District. In addition, Tree Farm Licence 25 makes up part of the District and contributes to the economic opportunities of the North Coast. This socio-economic assessment focuses on the communities within and surrounding the North Coast TSA. Figure 2.1 displays the North Coast Forest District.

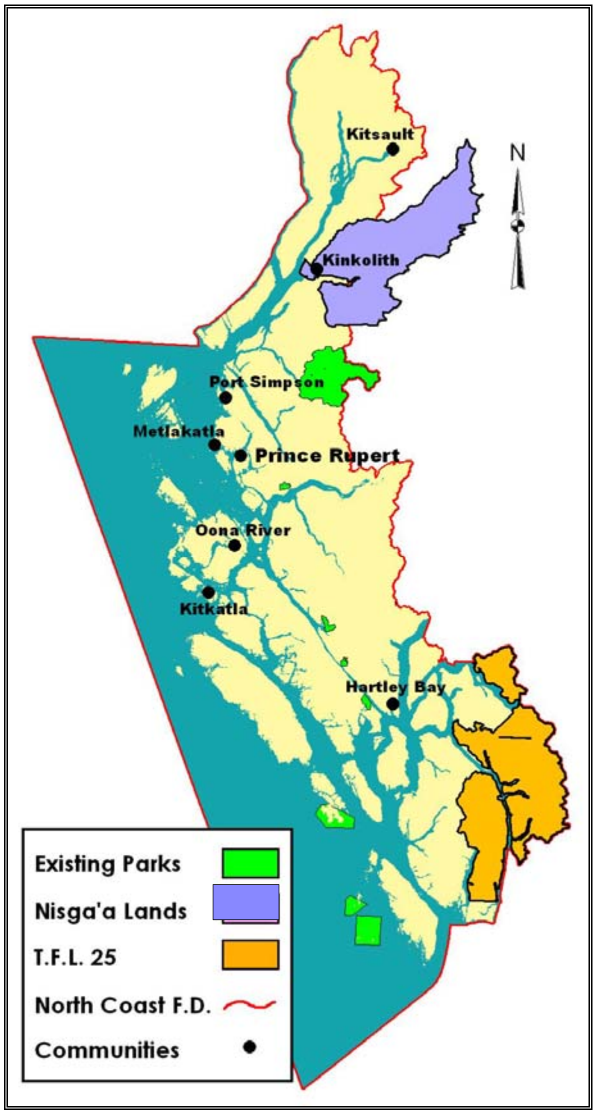

Figure 2.1 - Map of North Coast TSA

Timberline Forest Inventory Consultants

2.2 Population Trends

The largest city in the North Coast is Prince Rupert. There are several remote First Nations communities located throughout the islands of the North Coast. The region has seen a 13.6% decline in population between 1996 and 2004 however some of the First Nations communities have seen a population increase. Table 2.1 summarizes the population trends for the North Coast.

Table 2.1 - Population trends in the North Coast Forest District

Community	2004	1996	% Change
Prince Rupert	15,059	17,414	-13.5%
Lax Kw'alaams	661	1,019	-35.1%
Metlakatla	104	113	-8.0%
Gitkxwaala / Oona River	513	440	16.6%
Hartley Bay	192	155	23.8%
Port Edward	659	700	-5.9%
Kitsault	81	143	-43.4%
Total NC Forest District	**17,269**	**19,984**	**-13.6%**

Source:
Statistics Canada Community Profiles
(http://www12.statcan/english/profil01/PlaceSearchForm1.cfm);

BCSTATS. British Columbia Municipal Population Estimates 1996 – 2005;
(http://www.bcstats.gov.bc.ca/data/pop/pop/mun/Mu9605a.asp); and

Skeena Native Development Society – Labour Market Census 2003/2004
(http://www.snds.bc.ca/lmc.htm)

This trend is expected to continue over the short term, but the pace of outflow is expected to decrease. Declining population in the North Coast is similar to other rural resource-based regions in B.C. (*eg*. the Kootenays, or the Cariboo). This decline may be caused by migration to larger centers in pursuit of improved economic opportunities.

2.3 Economic Profile

The North Coast TSA has a diverse economy. It is one of the few regions of B.C., outside of greater Vancouver and the Fraser Valley, where the overwhelming majority of economic activity is not forestry related.

Traditionally, commercial fishing and fish processing sectors have been the largest industrial component. However recent declines in catch limits, price competition from fish farming and factors influencing fish populations have reduced the employment contribution of these sectors since 1996. As of 2004, forestry related activities provide only 3% more employment compared to fishing and trapping. The public sector is the largest basic sector employer in the area.

The majority of forestry employment in the region is connected with harvesting and silviculture activities. Other communities outside the North Coast TSA, including Kitimat, Terrace, and some on Vancouver Island and the lower mainland receive economic benefit from harvesting of timber on the North Coast.

A considerable setback to the regional economy took place in 2001 with the closure of the Skeena Cellulose Inc. pulp mill at Watson Island and associated sawmills and logging activities

High production costs limit the amount of commercial forestry in the northern portion of the TSA. Many stands are overmature and have limited merchantability. In addition, the harsh terrain limits accessibility. There is however a large volume of wood that is shipped offshore through the port of Stewart.

The growth and distribution of the labour force is a reliable indicator of economic trends in the region. In 1996, the labour force for the North Coast and Nechako Districts combined was estimated at 55,800 persons with 92% of that group employed. The numbers have declined and in 2004 the labour force was 48,100 with only 88% employed for that same geographic region. This represents a decline of 14% in the labour force and 4% in employment since 1996.[1]

An economy is characterized by employment and income flows attributed to its basic and non-basic sectors. Basic income (hence employment) flows into the region from outside its boundaries. So jobs that produce goods that are sold outside the region, jobs related to goods and services sold to persons visiting the region, and public sector jobs not directly funded by local residents, are examples of basic jobs.

Basic sectors of the economy include forestry, mining, fishing, tourism, public sector, and construction. The non-basic sector relies on the basic sector. This includes businesses that sell goods and services to the basic industries, such as heavy equipment repair and businesses catering to consumer demands (grocery stores, car dealerships, *etc.*).

Table 2.2 - Comparison of basic sector labour force

Basic Sector	1996	2004	Change in Persons (number & %)	Percent of Total (2004)
Forestry	1,653	1,143	-510 (-31)	19%
Mining	27	20	-7 (-28)	0.3%
Tourism	1,256	994	-262 (-21.)	17%
Fishing and trapping	1,985	980	-1005 (-51)	16%
Public sector	2,413	2,370	-43 (-2)	40%
Construction	372	230	-142 (-38)	4%
Agriculture and food	56	70	14 (25.0)	1%
Other basic	410	186	-224 (-55)	3%
Totals	**8,172**	**5,993**	**-2,179 (-26.7)**	

[1] Source: Statistics Canada, Labour Force Survey (annual Averages) Produced by BC STATS

Table 2.3 - Basic sector after tax incomes in 2004

Basic Sector	Average Annual Income
Forestry	$39,417
Mining	$19,186
Tourism	$15,749
Fishing and trapping	$21,456
Public sector	$28,984
Construction	$27,107
Agriculture and food	$14,799

The region's after tax income in 2004 total approximately $158 million (average of $26,380 per person in the labour force). There is considerable variation in the average income earned. Forestry has considerably higher annual income compared with other sectors. Public sector, construction, and fishing/trapping provide income levels are approximately 27%, 31%, and 56% lower than forestry, respectively. All other sectors are less than half of forestry. The higher incomes support more jobs throughout the region in the consumer supply industries.

Government's analysis of the region's economic statistics identifies and allocates the non-basic employment to basic sector giving rise to the employment. This provides a more comprehensive view of the economic drivers for the North Coast. Figure 2.1 summarizes the analysis.

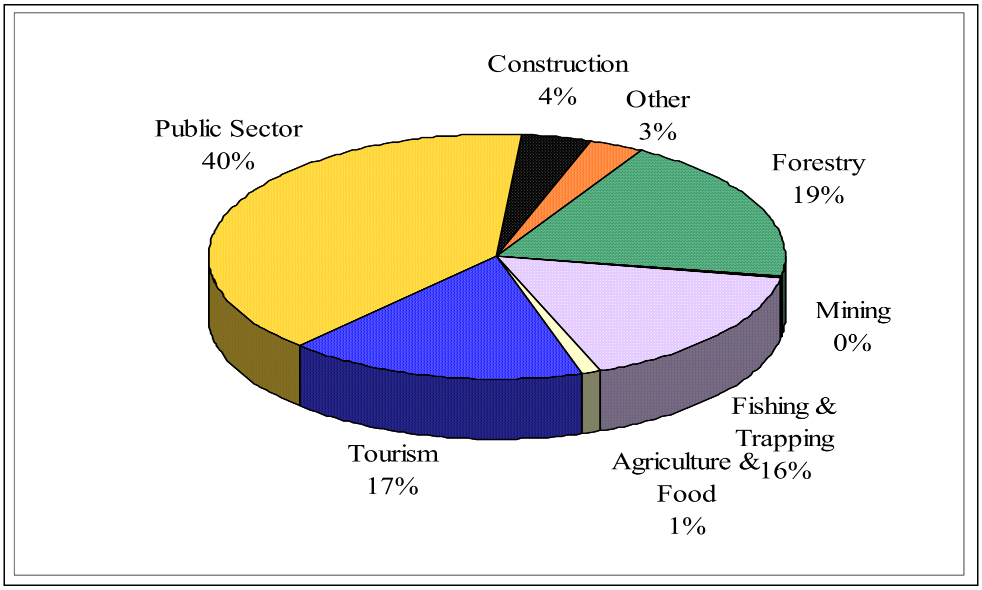

Figure 2.2 - Total employment by basic sector

Forestry accounted for 19% of the TSA's employment sector in 2004 (and approximately 28% of before tax income). This is second only to the public sector. A comparison of forestry's impact on the local economy is also demonstrated by the dependency of other employment on forestry. Every 100 forestry jobs supports approximately 28 indirect and induced jobs, based on harvesting activities in the District. This is higher than the public sector which supports approximately 22 indirect and induced jobs for every 100 positions.

With this understanding of the basic drivers of the local economy, Government analysis examined the relative diversity and vulnerability of small area economies[2]. Intuitively, one might expect that an economy composed of multiple industries would be more stable than a single-industry economy. Based on this view, a diversity index was defined to measure the relative diversity of local economies. The North Coast Forest District had a moderate ranking, indicating a moderately diverse economy.

Combining the income dependency analysis and the diversity assessment, a forest vulnerability index measures how sensitive a local economy is to changes in the forest sector. The notion is that an economy that is less diverse and highly dependent on the forest industry will be particularly vulnerable to changes in the forest sector. The analysis determined an index rating of moderate vulnerability for the North Coast Forest District (ranking of 33 where 0 is least vulnerable and 100 is most vulnerable).

[2] See *British Columbia's Heartland at the Dawn of the 21st Century* for a discussion of the indices, and *2001 Forest District Tables* for index values

3.0 FOREST INDUSTRY PROFILE

Although forestry supports a large work force in the North Coast Forest District, one concern is the lack of processing facilities. The only remaining pulp mill, located in Port Edward, is no longer in operation. As such, all logs harvested in the North Coast are either sent to mills on Vancouver Island or the Lower Mainland, or are exported to the USA or overseas.

3.1 North Coast TSA Allowable Annual Cut and Harvest History

The AAC for the North Coast TSA is currently set at 573,624 m^3/year. It took effect on January 1, 2001 and was a 4.4% decrease from the previous AAC of 600,000 m^3/year. The temporary AAC reductions are no longer in place.

In addition, the removal of the Nisga'a land base in May 2000 resulted in a reduction of 25,600 m^3/year to the AAC which was applied under Section 14 of the Forest Act. This land base withdrawal was reflected in the 2001 AAC determination.

The Minister apportions the AAC to various forest tenures. Approximately 73% is apportioned to replaceable forest licences, which are held mainly by forest licensees with processing facilities outside the North Coast. Table 3.1 summarizes the AAC apportionment for the North Coast TSA up to December 2005 and the current distribution.

Table 3.1 - AAC and apportionment

Apportionment	Pre December 2005 Volume (m^3) & Percent	Current Volume (m^3) & Percent
Forest Licences - Replaceable	393,626 (68.6)	246,724 (43.0)
Forest Licences – Non-Replaceable (First Nations)		188,985 (33.0)
Forest Licences – Non-Replaceable (Salvage)		2,000 (0.4)
BCTS Licence	150,125 (26.2)	110,043 (19.2)
Woodlot Licence		3,000 (0.5)
Community Forest Agreement		20,000 (3.5)
Forest Service Reserve	2,872 (0.5)	2,872 (0.5)
Current AAC	546,624 (95.3)	573,624 (100.0)
Temporary Section 13 reduction	27,000 (4.7)	
Total AAC	573,624 (100.0)	573,624 (100.0)

Source: Minister of Forests and Range's apportionment letter December 31, 2005

The actual harvest level may deviate from the AAC as licence holders are given some latitude for meeting their cut-control requirements. Table 3.2 presents the actual harvest level for each licensee over the period 2000 to 2004.

Table 3.2 - Annual harvest level by licensee

Licencee	Annual Harvest (m^3/year)					Average 2000-2004
	2000	2001	2002	2003	2004	
Interfor	135,266	283,032	115,693	112,552	316,081	192,525
Triumph Timber	118,025	220,442	91,045	130,000	130,000	137,902
Boyle & Dean	25,858	352	14	0	63,378	17,920
Thomson Industries	9	63,381	0	0	0	12,678
BCTS	169,889	66,636	133,579	36,282	172,983	115,874
Total	449,047	633,843	340,331	278,834	682,442	476,899

Source: North Coast Licensees, BCTS

3.2 North Coast TSA Major Licensees

The harvest and employment estimates for the major forest licence holders are provided in following summary tables. Note that employment estimates relate to the entire province, as much of the work conducted on the TSA is by contractors who reside outside the North Coast TSA. In addition, the employment information relates to the pre-December 2005 AAC apportionment.

International Forest Products Ltd. (Interfor) has a replaceable forest licence to harvest 205,715 m^3/year. All of the wood harvested on the North Coast is either sent to one of Interfor's seven mills located in the Fraser TSA for processing, or sold to other B.C. mills. The products are sold all over the world. Interfor is one of the largest tenure holders in B.C., with licences throughout the coast and interior of the province.

Table 3.3 summarizes the harvest and employment information for Interfor.

Table 3.3 - Interfor annual harvest and employment

Category	Volume (m^3)
Current licence volume (A16841)	205,715
Average annual harvest (2000 – 2004)	192,525
2004 harvest	316,081
Estimated Employment (at 2004 harvest)	**Person-years**
Harvesting and administration	63.9
Log transport	5.1
Silviculture	4.0
Timber processing	79.2
Total	**152.2**

Source: International Forest Products Ltd.

Triumph Timber has a replaceable forest licence to harvest 139,231 m^3/year. This licence was purchased from West Fraser Mills Ltd. since the last (TSR 2) analysis.

Table 3.4 summarizes the harvest and employment information for Triumph Timber.

Table 3.4 - Triumph Timber annual harvest and employment

Category	Volume (m^3)
Current licence volume (A16820)	139,231
Average annual harvest (2000 – 2004)	137,902
2004 harvest	130,000
Estimated Employment (at 2004 harvest)	**Person-years**
Harvesting and administration	51.9
Log transport	4.7
Silviculture	3.1
Timber processing	32.6
Total	**92.3**

Source: Triumph Timber Ltd.

Boyle and Dean Logging (B&D) has a replaceable forest licence to harvest 19,295 m^3/year. This is the only licence held by B&D in the province. B&D historically sells a small component of its volume to local interests, the majority is sold to a variety of coastal mills. A portion, up to 20% of its sawlog volume, is exported.

Table 3.5 summarizes the harvest and employment information for Boyle & Dean.

Table 3.5 - Boyle & Dean annual harvest and employment

Category	Volume (m^3)
Current licence volume (A16838)	19,295
Average annual harvest (2000 – 2004)	17,920
2004 harvest	63,378
Estimated Employment (at 2004 harvest)	**Person-years**
Harvesting and administration	10.9
Log transport	1.4
Silviculture	1.0
Timber processing	15.9
Total	**29.2**

Source: Interpac (agent for Boyle & Dean)

Thomson Industries has a replaceable forest licence to harvest 29,385 m^3/year. As with B&D, this is the only licence held by Thomson in B.C., and they operate as an independent log marketing company. Similar to B&D, approximately 80% of their annual cut is sold to coastal mills, and the remaining 20% is exported out of the province. Interpac, a forest management consultant, manages the licence on behalf of Thomson Industries.

Table 3.6 summarizes the harvest and employment information for Thomson Industries. Note that no volume was harvested under this licence during 2004, but some administration and other activities took place. Historically Thomson Industries would harvest during two of each five-year cut control period to manage costs. Recently harvesting has not occurred because of poor log market conditions and costs associated with harvesting.

Table 3.6 - Thomson Industries annual harvest and employment

Category	**Volume (m^3)**
Current licence volume (A16837)	29,385
Average annual harvest (2000 – 2004)	12,678
2004 harvest	0
Estimated Employment (at 2004 harvest)	**Person-years**
Administration	16.3
Log transport	0
Silviculture	1.5
Timber processing	0
Total	**17.8**

Source: Interpac (agent for Thomson Industries)

BC Timber Sales. In June 2001, the Ministry of Forests and Range was directed to transform the Small Business Forest Enterprise Program into an independent organization within the ministry operating on a stronger commercial footing. BC Timber Sales (BCTS) is the resulting organization. It sells timber competitively at auction. In addition BCTS will handle a portion of the increased volume from the Bill 28 take-back, which is AAC returned to the Crown from existing licences. Presently, the BCTS apportionment in the North Coast TSA is 101,856 m^3/year. The volume is managed within the BCTS' Skeena Business Area; which has an office located in Terrace.

Since the BCTS volume is sold at auction, the proportion of sales won by individual contractors working in the TSA will vary.

Table 3.7 summarizes the harvest and employment information for BC Timber Sales. Note that employment estimates are based on averages of other Licensees operating in the North Coast TSA.

Table 3.7 - BC Timber Sales annual harvest and employment

Category	Volume (m^3)
Current licence volume (A16841)	101,856
Average annual harvest (2000 – 2004)	115,874
2004 harvest	172,983
Estimated Employment (at 2004 harvest)	**Person-years**
Harvesting and administration	53.2
Log transport	4.5
Silviculture	2.2
Timber processing	43.4
Total	**103.3**

Source: BC Timber Sales – Skeena Business Area; North Coast TSA Licensees

4.0 REFERENCES

B.C. Ministry of Forests and Range. 1999. *North Coast Timber Supply Area Analysis Report, Socio Economic Analysis*. Section 7, Socio-Economic Analysis, pp. 49 - 62.

B.C. Ministry of Forests and Range. 2003. *Interim Guidelines for the Preparation of Socio-Economic Assessments for Timber Supply Reviews.*

B.C. Minister of Forests and Range. 2005. *Revised Apportionment – North Coast Timber Supply (TSA) letter to Director of Resource Tenures and Engineering Branch.*

B.C. Ministry of Forests and Range. 2005. *North Coast Forest District Major Licensee Zone AAC Distribution. http://www.for.gov.bc.ca/dnc/majors/majors.htm.*

B.C. Ministry of Government Services. 2004. *British Columbia's Heartland at the Dawn of the 21st Century*

B.C. Ministry of Government Services. 2004. *2001 Economic Dependency Tables for Forest Districts.*

BCSTATS. 2006. *British Columbia Municipal Population Estimates 1996 - 2005. http://www.bcstats.gov.bc.ca/data/pop/pop/mun/Mu9605a.asp*.

PricewaterhouseCoopers. 1999. *The forest industry in British Columbia, 1998.*

Skeena Native Development Society. 2004. *Labour Market Census 2003/2004. http://www.snds.bc.ca/lmc.htm.*

Statistics Canada. 2006. *Statistics Canada Community Profiles. http://www12.statcan/english/profil01/PlaceSearchForm1.cfm*.

Tamblyn, Greg & Horn, Hannah. 2001. *Current Conditions Report: North Coast Land and Resource Management Plan.* Contract report for Prince Rupert Interagency Management Committee. 144pp.