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GREAT SLAVE LAKE FORESTRY REPORT AND BUSINESS PLAN

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Yellowknife, N.W.T.

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INTRODUCTION

Historical Background

The community of **Fort Resolution** has had a long history of a forest industry, harvesting the **White Spruce** timber along the **Slave River**, since the early 1800's. Until the early 1960's there were sawmills and logging camps barged up and down the **Slave River**. Since the completion of the road from **Pine Point** in the late 1960's, there has been a permanent sawmill facility in **Fort Resolution** under various owners and management organizations until the **Northwest Territories Development Corporation** took over the business in 1994. In the past 30 years, two generations of residents in the settlement of **Fort Resolution** have either worked in the sawmill, or logging operations at one time or another. Logging and sawmilling have been in this community for over 150 years and is part of the fabric in this community, providing good meaningful longer term employment for several generations.

Since the construction of the present sawmill, the financial performance of this sawmill has never achieved its potential, for a small scale forestry operation. There are a multitude of reasons for this, but they come down to four major factors:

- **No comprehensive long term business plan based on the available wood supply**
- **Lack of an on site competent management**
- **Over 40% drop in lumber prices**
- **Huge increase in stumpage fees**

These four deficiencies have resulted in losses of hundreds of thousands of dollars over the past, and the trend will continue unless there is a major change in the direction and operation of this company. With this trend, **Northwest Territories Development Corporation** has only two appropriate financial options:

- **Support the following achievable business plan**
- **Wind down the operations for closure**

The socioeconomic implications of closing this facility would be significant on the community of **Fort Resolution**. In the past three (3) years, **Great Slave Lake Forest Products Ltd.**, injected over \$450,000 in payroll for local residents, during the milling season. As well, logging and construction contracts in the forestry operations, exceeds \$600,000, most of which are awarded to local contractors. The loss of these dollars would have a devastating effect on the economy of not only **Fort Resolution**, but also much of this money is being spent directly and indirectly in **Hay River**. As well, over \$500,000 annually is being spent directly on supplies and services, most of this coming from Hay River. A total of over \$1.5 million dollars has been injected in the **Fort Resolution** and **Hay River** economies annually, over the past three years. The continuance of this sawmill is important to both **Hay River** and **Fort Resolution**.

In recognition of the economic importance of **Great Slave Lake Forest Products Ltd.**, the **Northwest Territories Development Corporation** recruited a **General Manager** with the experience, background, and knowledge, to develop the existing asset base of **Great Slave Lake Forest Products Ltd.** into a profitable sustainable company, that would be a flagship community forest operation in the new **Northwest Territories**. The role of this **General Manager** was not only to run the day to day operations, but to develop a viable **Business Plan** to ensure a long term sustainable business. This **Business Plan** is the result of eight (8) months of research in the internal operations of this company, as well as consultation with other individuals with the industry, to ensure the investment in capital, operational costs, and marketing is appropriate for the economies of scale and the geographical challenges this operation. The result of this plan is the realization that this sawmill in **Fort Resolution** can be a profitable, viable and a long term business, that will be self-supporting within three (3) years.

Future Direction

Great Slave Lake Forest Products Ltd. and the community of **Fort Resolution**, presently has the following elements to become a modest manufacturer of lumber, timbers and other forest products in the **Northwest Territories**:

- **Existing Accessible long term viable timber supply**
- **Sawmill plant and infrastructure**
- **Excellent road and transportation infrastructure**
- **Experienced work force**
- **Existing competent management**

The limiting factor of this operation is the forest land base. The sustainable allowable cut available over the long term, has not been determined. **Great Slave Lake Forest Products Ltd.** presently has access to harvest or purchase 50,000 cubic meters of **White Spruce** timber, to April of the year 2000. With this licence as well as future allocations, **Great Slave Lake Forest Products Ltd.** plans to log and manufacture from 20000 cubic meters to 25000 cubic meters annually, into between 3.7 and 5 million board feet, of lumber. Processing this volume with the existing sawmill equipment, would see large unsustainable losses. In order to improve the financial performance of **Great Slave Lake Forest Products Ltd.**, the following objectives must be achieved:

1. **The sawmill must be improved to ensure maximum labour efficiency**
2. **Lumber recovery must be improved by at least 20%.**
3. **Smaller diameter logs down to a 6 inch stump must be utilized efficiently.**
4. **The wood waste for disposal must be reduced and managed properly.**
5. **Higher product value, must be obtained for the lumber and timbers**

Great Slave Lake Forest Products Ltd. proposes a capital investment of \$390,000 into the facility, to improve and upgrade the quantity and quality of manufacturing. Projected

production levels will be an average of 40,000 board feet of rough dimension lumber per day from the sawmill and 50,000 board feet per day from the planer.

Eighty percent (80)% of this volume, will be finished construction lumber, sold into the northern market at prices above **\$390** thousand board feet, **fob Fort Resolution**. Sales projected in the first year will exceed **\$1.2 million** in the first year, **\$1.8 million** in the second year, **\$1.7 million** in the third year.

Net income over this period is projected as follows:

- 1999 – 2000 (\$325,960)
- 2000 – 2001 \$ 92,110
- 2001 – 2001 \$ 6,490

This does not include the lumber and log inventory on hand, which contributes to the profitability of any sawmill or forestry operation. The results of this financial performance, will be the development and maintenance of 20-24 permanent seasonal positions, in the sawmilling and planing operations and another 20 positions in the logging operations through contractors. As well, **Great Slave Lake Forestry Products Ltd.** will continually generate **\$1.5 million** of direct economic activity, from a local sustainable resource. More importantly, the people in the community of **Fort Resolution** will have the opportunity to develop the skill base to operate and maintain a viable forestry operation and continue the local sawmilling tradition. **Great Slave Lake Forestry Products Ltd.** will also be manufacturing and selling a quality lumber product throughout the north as well as points south.

WOODLANDS MANAGEMENT

Forest Resources

One of the most critical elements in the success of **Great Slave Lake Forestry Products Ltd.**, is the available timber supply within the forest land base. Traditionally, the land base for this operation is the large diameter stands within the **Slave River Lowlands**. There has been much discussion regarding the **Annual Allowable Cut**, available from this area and how sustainable are the present cut levels. However, there has never been a comprehensive inventory to determine the true **Annual Allowable Cut** at sustainable levels. **Renewable Resources Forest Management Division** and the **Deninu K'ue First Nation** are scheduled to complete a forest inventory by the year 2001. Although, there will always be a large portion of the annual harvest taken from this area, this company must look for other potential sources of timber from other stands west of the **Slave River** and **Fort Resolution**. Timber stands previously considered unmerchantable, must be included in the land base, in order to continually maintain a viable **Annual Allowable Cut**. As a result the average log size will reduce over time. This limited wood supply makes it imperative that the **Fort Resolution** sawmill must efficiently recover all available lumber from logs down to a 6 inch stump and 4 inch top.

At present, **Great Slave Lake Forest Products Ltd.**, retains a two year licence of 40,000 cubic meters. A total of 18000 cubic meters will be harvested, in 1999 and 20,000 cubic meters to be harvested in the year 2000. In addition to it's own licence, **Long Island Logging Ltd.**, is a holder of a license for 10,000 cubic meters over two years. As the **Fort Resolution** sawmill is the only customer for logs within economic hauling distance, all logs from **Long Island Logging Ltd.** are purchased by **Great Slave Lake Forest Products, Ltd.** This guarantees 50,000 cubic meters of timber is available for the sawmill over the next two years.

The overall harvest over the next three years (3) is projected to be:

- 1998/1999 – 23,000 cubic meters
- 1999/2000 – 25,000 cubic meters
- 2000/2001 – 20,000 cubic meters
- 2001/2002 - 20,000 cubic meters

Harvesting Techniques

Felling and Skidding

With an annual harvest of between 20,000 and 25,000 cubic meters, the only economically viable and environmentally acceptable harvesting technique is hand felling with line skidders. The volume is not large enough to warrant the economies of scale, of purchasing mechanized equipment. All logging will be done where possible, with the use of local contractors and local employees. Contractors in the **Fort Resolution** area only require the purchase of a good used line skidders, with approximate value of \$30,000, which can earn potential revenue of \$53,000 in 2.5 months. The objective is to encourage and develop the skill of contractors and individuals in safe and proper logging techniques. However, there is a limit of skilled loggers in the community of **Fort Resolution**, therefore some contractors and employees will be from other communities in the interim. This part of the harvesting operations will retain 20 jobs for 2.5 months available to local residents from January 15 until the end of March.

Log Hauling

Great Slave Lake Forest Products Ltd. is and will continue to utilize self-loading picker trucks to load, transport, and unload logs from the licence area and the **Fort Resolution** sawmill. A local contractor has purchased the required equipment and is successfully delivering the logs to our yard. This technology provides the following advantages:

- Logs are decked on the roadside eliminating the need to stump landings
- Loggers are not held up waiting for landings to be constructed
- Less environmental disturbance on the forest soil
- Trucks can dispatched to any log deck without moving loaders
- No requirement to staff loaders 24 hours a day

- **Logs are piled higher requiring less yard space for storage**
- **The log flow into the yard does just not depend on two operating loaders only**

Winter Road and Ice Bridge

Almost all the available timber supply to **Great Slave Lake Forest Products Ltd.** is across the Slave River, winter access only. Part of the cost of operations is the freezing down, construction and maintenance of winter haul roads, complete with ice bridge crossings. As well, haul roads within the cut blocks must be cleared and constructed. These operations will be done with use of local contractors and the **Komatsu D65** that is owned and operated by **Great Slave Lake Forest Products Ltd.**

Logging Costs

Logging costs are projected to be **\$41** per cubic meter. Taking **\$10.30** per cubic meter for reforestation fees into consideration, the operational costs for logging is projected to be **\$30.70** per cubic meter. This includes felling, skidding, trucking, planning, road construction, maintenance, ice bridge and associated expenses. Following are the projected logging costs for:

- 1999 – 2000 **\$1,025,000**
- 2000 – 2001 **\$ 820,000**
- 2001 – 2002 **\$ 820,000**

MARKETING STRATEGY

The cost of wood fibre for the Fort Resolution sawmill is relatively high. At a proper conversion of **185 fbm** per cubic meter, this converts into **\$221 per Mfbm** Production cost of delivered logs. Therefore, a marketing strategy must be developed that optimizes the value of the existing wood fibre. The past practice of milling rough dimension lumber and timber and selling this product through southern lumber distribution network must be changed. With long distance to these markets, high transportation costs reduce what ever competitive advantage **Great Slave Lake Forest Products Ltd.** may have. In order to become viable, **Great Slave Lake Forest Products Ltd.** must manufacture a higher value product and improve sales via higher prices.

Product Mix

The major competitive advantage small sawmills have over the larger operations, is the ability to manufacture a wide variety of products. Although, the physical plant at the Fort Resolution sawmill limits this variety, **Great Slave Lake Forest Products Ltd.** will have the ability to produce the following quality forest products:

- **2 x 4" Dried Planed Finished Construction Lumber Lengths 8 feet to 16 feet.**
- **2 x 6" Dried Planed Finished Construction Lumber Lengths 8 feet to 16 feet.**
- **2 x 8" Dried Planed Finished Construction Lumber Lengths 8 feet to 16 feet.**
- **Rough Lumber 2 x 4" to 2 x 8" Lengths 8 feet to 16 feet**
- **1 inch boards from 1 x 2" to 1 x 12" 6 feet to 16 feet**
- **3 x 10" and 3 x 12" lumber Lengths 18 feet to 16 feet**
- **Timbers from 8 x 8" to 12 x 12" 8 feet to 16 feet**
- **Dry Wood Shavings**

The majority approximately 70% of production, will be 2" dimension lumber of construction quality, destined for the northern market. Ten percent (10%) of the production is projected to be large boards and timbers, from the larger logs available. The remaining 20% will be 1" material recovered from edge boards and downfall from the planer.

Although, at preliminary stages, there is potential to market dry wood shavings, a by product of the planing process, as bedding for horses and other livestock throughout the north. This is an alternative to burning this valued waste material. As this plan is actuated, the volume of this market will be researched, to determine if the value justifies, the extra handling, involved.

Sales and Promotion

Historically, the approach to selling lumber and other products from this operation has been via a single lumber brokerage firm in southern Canada. In order to obtain the maximum value from the forest resource, this company must aggressively sell its own products, by sourcing out high value markets. In order achieve this, the practice of entering into long term contracts with a single buyer must change. The general practice in the industry, is selling lumber and timbers to a multitude of customers, such as; lumber brokers, traders, larger lumber distribution companies, and in come cases, lumber retail yards. Customers, request quotes on larger orders of material, usually in volumes from 100,000 fbm to 1,000,000 fbm, for specific dimensions. (eg. 250,000 fbm of 2 x 4" random lengths, heavy 16') These are known as purchase orders or order files in large companies. The price is negotiated at the time using the market price as a base, with specifics such as transportation, etc, worked in the price, fob Fort Resolution.

Great Slave Lake Forest Products Ltd. intends to sell all the dimension construction lumber in the **Northwest Territories**. This amounts to over 70% of the product in the northern market. The **Northwest Territories Government**, alone, buys 21 million board feet a year in construction and associated lumber. **Igloo Building Supplies** distributes 12 million board feet of lumber, annually, into the north. **Great Slave Lake Forest Products Ltd.**, is projecting to sell between 3 million and 4 million annually. **Igloo Building Supplies** of Hay River, presently purchased a large portion of their lumber directly from **High Level Forest Products Ltd.** in High Level, Alberta and **Manning Diversified Forest Products Ltd.** in Manning, Alberta to reduce their own internal transportation costs. They have expressed interest in purchasing lumber from **Great Slave Lake Forest Products Ltd.**, under the same type of arrangements. **Broken Hill Properties** has also expressed interest in purchasing forest products from this company. Other potential customers in the north are:

- **Beaver Lumber**
- **Municipal Organizations** throughout the North
- **Community Lumber Yards**
- **Nunavut**

The bottom line, if **Great Slave Lake Forest Products Ltd.** can manufacture the product, the market is here. Therefore, the quality of the lumber must equal or exceed construction lumber from other sources. This means the construction lumber must be graded and packaged, as other producers do. All planed/dried lumber must be covered with a plastic wrap to ensure quality is consistent, upon reaching the customer. This lumber wrap also gives this company an opportunity to differentiate these products, as manufactured in the north. Other than the packaging, the other promotional tools will be utilized, to expose the product throughout the north. However, direct salesmanship from the **General Manager** and a quality product will be the most effective way to obtaining and keeping customers.

Ten percent (10%) of the wood fibre is projected to be large logs capable of being processed, into specialty rough timbers. This works out to approximately 400,000 fbm annually. Mines are a big user of this product and Broken Hill Properties has already corresponded with this company searching for specific timber sizes. Great Slave Lake Forest Products Ltd. intends to sort and store the large logs to develop an inventory ready for milling. The large timbers and boards will be manufactured, into high value products, as ordered by customers. There are also customers in the Edmonton, Alberta that often pay a premium from large square timbers for remanufacture. Even with the transportation costs, prices fob. Fort Resolution would be competitive.

Twenty percent (20%), of the volume will be utility/economy grade lumber and 1" recovered lumber from the slabs. This volume could reach as high as 800,000 fbm annually. The financial projection, reflects selling this product, at downfall prices. However, there is an international market through Edmonton, Alberta for precision 1" material, at higher than average prices. Manufacturing this product would bring price considerable higher, than the regular utility, or economy grade values.

Price

In the previous year, the lumber market was down. Prices received for the rough dimension lumber at Fort Resolution, dropped from a high of \$350 per Mfbm to \$265 per Mfbm. This was a reflection of the low lumber prices within the North American Market. However, the Madison Price index for kiln dried Western SPF is up \$25/Mfbm from the same time in 1998. Even if this operation received the full benefit of this increase, rough 2" lumber price would be \$285/Mfbm. At direct manufacturing costs of over \$350/Mfbm, selling into this market would see a continuation of poor financial performance. The current Madison price (as of March 5, 1999) for 2 x 4" Std.#2 or Btr, was \$338 US. Converted to Canadian funds, this is approximately \$440/Mfbm. Lumber buyers and distributors in the north, must pay this price for lumber from the south, plus transportation.

Other current **Madison** lumber prices for finished products to be manufactured in **Fort Resolution**, are:

- **2 x 6" Random Lengths - \$403/Mfbm**
- **2 x 8" Random Lengths - \$409/Mfbm**

Therefore, the current unweighted average price, is **\$417/Mfbm** of the 2" dimension lumber on the **North American** market, **fob mills in southern Canada**. These prices will serve as a base price in negotiating lumber prices with northern communications. Even with **Great Slave Lake Forest Products Ltd.** delivers the wood, prices will be quoted **fob Fort Resolution**. Seventy percent (70%) of our product will be sold at these price levels. As well, there are seasonal and cyclical price trends, that can increase these values in the future.

As previously outlined, **10%** fibre will be processed into, specialized timbers. In **Edmonton, Alberta**, large timbers such as **6 x 8"s**, **8 x 8's** and **10 x 10's**, for price of **\$500 Mfbm** delivered. This converts, to **\$400/Mfbm**, **fob Fort Resolution**, for rough timbers. As well, the mines in the **Northwest Territories**, are large ultimate consumers of timbers. Prices for this product will exceed **\$500 per Mfbm**, **fob Fort Resolution**. **Great Slave Lake Forest Products Ltd.**, is already on **BHP's** list, as a supplier forest products. As well **Igloo Building Products** purchases timbers for northern destinations. Prices such as these will assist in keeping the average over **\$390**.

The **20%** 1" material from recovered edge boards and planer 2" downfall, can be cut in precision 1" **S4S** boards, from **1 x 2's** to **1 x 8's**. Instead of receiving prices of less than **\$200 per Mfbm**, much of this material can be resawn and selected to bring up **\$350/Mfbm** for rough boards.

Transportation Infrastructure

One of the limiting factors of any business in the Northwest Territories, is the lack of good all weather roads. **Fort Resolution** has the enviable position of having a 150 kilometer highway to **Hay River**. Only 66 kilometers, at present is a gravel, high grade, highway the remaining highway is paved. **Hay River**, as the cliché states, is the transportation hub of the north. As a terminal for rail, trucking and shipping, this access to the northern markets, gives **Great Slave Lake Forest Products Ltd.**, throughout the north. As well, **Fort Resolution** is well connected by highway to southern markets in Alberta.

Not only is **Great Slave Lake Forest Products Ltd.**'s proximity to **Hay River** important for transporting finished product, but it also is an advantage for purchasing the requires parts and supplies to support the sawmill facility and associated equipment.

SAWMILL MANUFACTURING

The present sawmill equipment is typical bush mill equipment with 1960's technology. It consists of two lines; a 48" head rig carriage mill with a 4" board edger for large logs and a 42" scragg mill with an 8" bull edger behind it. The scragg mill can handle logs up to 15", with the carriage mill processing the larger logs. As well, there is a circular resaw mill with a 6" bull edger in another building, to recover boards from the slabs off the scragg mill. Along with the stationary equipment, there is rolling stock to support the plant, which includes two loaders, a forklift and dozer tractor. Currently, there are two major issues to deal with in the physical plant, both in the present state of the equipment and the original design. Changes proposed to the mill, in this plan must achieve the following objectives:

- Improve productivity with consistent equipment performance with minimum down time
- Improve the recovery of the valuable timber resource by minimizing sawdust and other waste without a large increase in labour and operational costs
- Saw and process lumber with consistent precision and uniform dimensions
- Manufacture the consistent quality demanded by customers
- Efficiently transport and dispose of the waste products

To achieve these objectives, Great Slave Lake Forest Products Ltd., proposes a major capital investment of \$390,000. Without this capital injection, there is no hope in creating a viable operation in Fort Resolution. These expenditures will be utilized in two ways:

1. Refit and upgrade the existing usable equipment.
2. Purchase additional equipment to compliment the existing plant.

Existing Equipment

48" Head Rig Carriage Mill

At a time when a large majority of the logs destined for **Fort Resolution**, this was a major production line for the sawmill. Over the years this line was operated without proper care in keeping up with maintenance and upkeep this equipment. This has left this mill in such a state, the estimate for upgrading this line for efficient production, would exceed \$100,000. Both the carriage mill and the board edger require removal from the plant, be transported to the south for upgrading and refitting. With the scragg mill able to manufacture all the logs up 15", less than 10% of the logs will require processing the carriage mill line. This amounts to less than 400,000 board feet annually, with this number eventually reduced. To invest the dollars required for the volume available, has no economic viability. A portable sawmill capable of processing these large logs would cost \$40,000. A figure that better reflects the volume available.

Great Slave Lake Forest Products Ltd., plans to remove the head rig carriage mill and the board edger from the plant to be liquidated. The log, board and waste transfer systems will remain and be utilized with other additions to the plant. Instead of purchasing a portable sawmill, which is an option, **Great Slave Lake Forest Products Ltd.** intends to provide the opportunity to a local contractor or the **Deninu K'ue First Nation** to custom saw the large timbers. The contractor provides the portable mill, labour and operational supplies, and **Great Slave Lake Forest Products Ltd.** will provide the logs and the rolling stock to move material. The contractor will set up this mill in the Fort Resolution mill yard and this company will transport logs, remove the product and waste.

Scragg Mill

The most productive line within the existing sawmill was and is the scragg mill and 8" bull edger. At maximum productivity, this mill combination should have little difficulty in manufacturing 40,000 board feet in an eight hour shift. However, there is an original design problem that must be solved. When this sawmill line was constructed, the scragg was designed as a one pass system, only. When the log passes through the saws, it cannot be returned to slab off 1" or 2" boards before processing the cant for the edger. Therefore, most of the slabs from this mill contains recoverable valuable lumber. This volume can be as high as 20% depending on the log size. A resaw system within the plant and on line, should have been installed to recover this volume.

The plan is to do some minor refitting of the of the scragg mill and change the saws and spacers in the 8" bull edger. Presently, the saws in this edger are 3/8" saw kerf. For every 8" cant processed throught this edger, one complete board is sawdust. **Thinner kerf modern insert carbide tip blades** will recover that volume. Some minor refitting is required as well.

Resaw Mill

In 1998, a resaw mill was set up to rectify the situation. Although, the intentions were good, the cost of handling and moving the material removed any remaining value in the wood fibre. The slabs must be transferred and processed within the same production line as the scragg. As well, research has indicated that the existing resaw was recovered form fire damaged mill equipment. This is consistent with the difficulty in keeping this mill precise during the 1998, milling season. The circular resaw has a saw kerf of 3/8" also. An excessively thick saw kerf for maximum recovery. The plan for the plant, is closure of the resaw. The wood transfer and waste systems, will be utilized in the intended planer mill.

Proposed Sawmill Equipment Additions

Along with upgrading the existing usable equipment, some further equipment purchases are proposed to increase the quantity and quality of manufacturing. Following is a list of the equipment required to obtain maximum production, recovery, and value:

- **Thin Kerf Band Resaw**
- **Circular Saw Linear Bucking Deck**
- **18" Ring Debarker**
- **Beehive Burner**
- **Planer**
- **Planer Building**
- **Additional Power Generator**
- **Quick Attach and Lumber Grapple for Komatsu 380**

Thin Kerf Band Resaw

As already identified in this plan, the major factor in the lumber recovery loss, is the inefficient ability to resaw the slabs produced off the scragg head saw. The plan to rectify this situation, is by installing a thin kerf band resaw as part of the lumber processing line. This band mill system will either be installed on-line behind the scragg head saw, or in the same location as the present carriage mill.

Research has revealed several types of resaws, however a **Baker Banksaw System**, developed by a company in **Ellington, Missouri**, appears to be the best option to date. Advantage to this system are:

- **Slabs can be processes into 1" & 2" lumber in one pass**
- **No more that two individuals to operate**
- **Saw Kerf is only .067" rather that .375"**

- **Disposable Blades**
- **Relatively easy to install**

The cost of this equipment, new, is between \$50,000 and \$60,000 depending on the system purchased. However, there are some good used, **Baker**, resaws for sale that can reduce this price.

Circular Linear Bucking Saw

Traditionally, tree length logs were delivered to the yard and hand bucked before entering the mill. This practice added to the low recovery numbers in the past. No matter what method is used to hand bucking, it is impossible to get full utilization of the logs within reasonable cost. To utilize grapple bucking creates a large volume of waste and bucking individual logs is slow and costly. In 1998, **Great Slave Lake Forest Products Ltd.**, paid the **Deninu K'ue First Nation**, over \$25,000 to buck 16,000 cubic meters of logs. This does not include the cost of operating a full time loader. Simple observation of the contract, concludes, the **First Nations** costs were far higher than the revenue received. A bucking station can be purchased for \$15,000 to \$30,000 dollars and cost \$20,000 per year to operate. Mechanical bucking is not only cost efficient over the long term, but provides other benefits in manufacturing:

1. **The operator has the ability to buck out defects such as crooks and forks.**
This produces a straighter more uniform log to enter the sawmill.
2. **The operator can cut the tree into lengths to maximize utilization.**
3. **Logs can be cut into lengths to the market rather than have pre-bucked with pre-determined lengths. (eg. 16 footers may not always be the optimum length)**

Therefore a mechanical bucking system can increase log utilization by 10%. As well, bucking specific lengths for special orders can sometimes increase the value of the finished product.

18" Ring Debarker

The change to thin kerf technology dictates a debarker must be installed on the production line. Bark, dirt, and branches all create excessive wear and damage to any sawblade. Historically, many of burnt saw blades can be attributed to this problem. There are several types and makes of debarkers; that removed the bark from the whole tree or single logs. For this type of sawmill, log ring debarkers are the most commonly used. **Cambio** Ring debarkers are a very commonly used debarker manufactured by CAE. Metaphorically speaking, **Cambio** is to debarkers as the 350 Chevrolet Motor is to automobiles. There are many of these debarkers around the industry with a large inventory of parts and knowledge available, to ensure continual operations and maintenance. Debarkers come in different sizes from 12" to 48". Going to a larger machine will cause problems with the smaller logs. Therefore a 16" to 18" suits this operation. The most common size is 18". A good used reconditioned **Cambio 18"** debarker can be purchased for \$25,000 to \$30,000 from sawmill equipment dealers.

Beehive Burner

Even with the increased lumber recovery after the proposed changes, there will be a large volume of wood waste such as bark, sawdust, and unrecoverable slabs. The practice of allowing waste to accumulate then ignited during the winter months is both **expensive, dangerous** and an **environmental hazard**. Disposal of the accumulated waste pile will cost more than \$20,000 every year. To burn this waste efficiently and in a reasonable time, requires labour and dozer tractor time. This accumulated waste is an extreme fire hazard for both the sawmill and community of **Fort Resolution**. The proximity of the pile to the shore of **Great Slave Lake** is not great for the hydrological environment.

Throughout the forest industry, there has been much talk regarding environmental burners. There have been many claims regarding the efficiency of these burners and their impact on the air quality. However, many in the forest industry are sceptical of these claims. As well, the cost of these burners are quoted at **\$800,000** plus. Obviously, prohibitive, for the economies of scale for this company.

Research into the viability of chipping a large portion of the solid wood waste for sale to **DM1 Peace River Pulp Corporation in Peace River**. However, the present low pulp market is reflected in lower chip prices. Currently chips are worth **\$90 per Bone dry tonne**. A super B-train chip truck hauls **21 bone dry tonnes** or **\$1890**. The trucking will cost **\$76.00 per bone dry tonne** or **\$1596**. The net income to **Great Slave Lake Forest Products Ltd.**, projected at **\$294**. An operation of this size will produce between 150 to 200 loads of chips for a total revenue of between **\$40,000** and **\$50,000**. This is close to the cost of operating the equipment not including return on investment. Estimates of purchasing and installing the required equipment is **\$100,000**. A large investment for something with no profit margin at this time.

In the long term however, as wood fibre values rise, there will eventually be some type of chipper. As the pulp market rises and the price of chips increases, the viability of a chipper improves. Installing a debarker will allow this mill to add on chipping equipment without a lot of difficulty.

The only viable method of disposing of waste in the foreseeable future, is the use of a **beehive forced air burner**. Many of these burners are abandoned throughout **Alberta** and **British Columbia**. Usually, the cost of such burners is the cost of removal, transportation and set up in **Fort Resolution**. Estimated at **\$10,000**.

Planer and Planer Building

As a quality product is the key to success with this company, a planer is one of the most important pieces of equipment to be purchased. The quality and consistency of the lumber out of the planer must meet or exceed finished product from the south. There are many types of planers with the quality and production levels required by this operation. An ALCO, Beaver 49, or Woods planer that can plane lumber up to 6" thick and 12" wide work for this purpose. Although, only lumber up 2 x 8,s will be planed in the near future, changes to the sawmill and market may require planing specialized material in the future.

The specifications for the proposed planer are:

- Plane 50,000 fbm of 2" dimension lumber in an 8.5 hour shift
- Easy operation, care & maintenance
- The frame is solid and all lines are true
- Flexibility in product
- After sales parts availability

A good used rebuilt Beaver 49 or Woods Planer can currently be purchased at between \$30,000 and \$50,000.

A new three sided, open building, with a solid, level foundation is required to house the planer. The new building must sit on cement footings and be situated close to the sawmill to have the ability to transfer the sawdust, waste, etc. into the same burning vessel. Estimate for this building is \$50,000.

Additional Power

With the additional equipment, there will be more electric motors. The existing power generator may be able to take the increased load with a capacitor bank system. If not, a second generator will be purchased similar to the existing one or we could rebuild the generator utilized at the reman plant.

Quick Attach and Lumber Grapple for Komatsu 380

Great Slave Lake Forest Product Ltd., presently owns two Komatsu loaders. As the practice of hand bucking will not occur, only the 420 loader is required to feed tree length logs to the sawmill. Therefore the Komatsu 380 is available to handle and load the lumber inventory. The 930 Cat forklift is not only mechanically unable to keep up with the anticipated lumber handling, but forklifts are not made to operate in uneven muddy yards. Therefore, to obtain maximum value from the Komatsu 380, a lumber grapple is proposed, with the ability to fasten on a quick attach receptacle. This allows the 380 to be a backup log loader when required. The 930 has little value if liquidated however, a little maintenance and care will keep it operational enough as a back-up for handling or loading lumber.

Miscellaneous Equipment

It must be pointed out at this time, that there is incidental equipment and materials such as conveyors, infeeds, rollers, tables, steel, wiring, electrical panels, etc. that will be required. Much of this kind of equipment is on-site at present, however there will be some additional purchases as well as some specialized machining and steel fabrication to adapt these additions to the existing plant. The estimate for this, is projected to be \$90,000.

Appendix
Financial Projections
2000 - 2002

Great Slave Lake Forest Products Ltd.
Assumptions
1999 - 2000

	Conversion		Stumpage		Cost of Logs
fbm	m3	Total m3	Total fbm	Per m3	41 per m3
185	1	25,000	4,625,000	10.3	
	\$/Tonne	Planer	# of Days	Lumber Price	
Trucking	13	50,000 fbm Per day	Per month	390 per mbfm	
Felling & Sk	13		20	Drying Time is 4 weeks	

	Log Inventory Plan (m3)													
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	
Starting Inventory	23,000	23,000	23,000	21,750	19,250	15,750	11,750		7,750	3,750	1,000	3,500	13,500	
Logs Delivered	-	-	-	-	-	-	-	-	-	-	2,500	10,000	12,500	25,000
Logs Milled	-	-	1,250	2,500	3,500	4,000	4,000	4,000	2,750	-	-	-	22,000	
Ending Inventory	23,000	23,000	21,750	19,250	15,750	11,750	7,750	3,750	1,000	3,500	13,500	26,000		
	Cost of Logs													
Starting Inventory	943,000	943,000	943,000	891,750	789,250	645,750	481,750	317,750	153,750	41,000	143,500	553,500		
Logs Delivered	-	-	-	-	-	-	-	-	-	102,500	410,000	512,500	1,025,000	
Logs Milled	-	-	51,250	102,500	143,500	164,000	164,000	164,000	112,750	-	-	-	902,000	
Ending Inventory	943,000	943,000	891,750	789,250	645,750	481,750	317,750	153,750	41,000	143,500	553,500	1,066,000		
	Lumber Inventory Plan (mbfm)													
Starting Inventory	-	-	-	208,125	624,375	1,107,125	1,273,125	939,125	805,125	763,000	763,000	763,000		
Sawmill Production	-	-	231,250	462,500	647,500	740,000	740,000	740,000	508,750	-	-	-	4,070,000	
Planing Production	-	-	-	-	100,000	500,000	1,000,000	800,000	500,000	-	-	-	2,900,000	
Lumber Sales	-	-	23,125	46,250	164,750	574,000	1,074,000	874,000	550,875	-	-	-	3,307,000	
Drying Inventory	-	-	208,125	624,375	1,107,125	1,273,125	939,125	805,125	763,000	763,000	763,000	763,000		

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Revenue and Expenses
1999 - 2000

Revenue	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Lumber Sales	-	-	9,019	18,038	64,253	223,860	418,860	340,860	214,841	-	-	-	1,289,730
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	-	-	9,019	18,038	64,253	223,860	418,860	340,860	214,841	-	-	-	1,289,730
Cost of Sales													
Logging													
Felling & Skidding	-	-	-	-	-	-	-	-	-	26,813	107,250	134,063	268,125
Log Hauling	-	-	-	-	-	-	-	-	-	26,813	107,250	134,063	268,125
Ice Bridge Construction	-	-	-	-	-	-	-	-	-	25,000	-	-	25,000
Road Construction & Mtce	-	-	-	-	-	-	-	-	-	22,250	59,000	38,250	117,500
Reforestation Fees	-	-	-	-	-	-	-	-	-	-	128,750	128,750	257,500
Other	-	-	-	-	-	-	-	-	-	1,625	7,750	79,375	88,750
Total Logging	-	-	-	-	-	-	-	-	-	102,500	410,000	512,500	1,025,000
Opening Inventory	943,000	943,000	943,000	891,750	789,250	645,750	481,750	317,750	153,750	41,000	143,500	553,500	943,000
Closing Log Inventory	943,000	943,000	891,750	789,250	645,750	481,750	317,750	153,750	41,000	143,500	553,500	1,066,000	1,066,000
Cost of Logs	-	-	51,250	102,500	143,500	164,000	164,000	164,000	112,750	-	-	-	902,000
Milling													
Sawmill Wages & Benefits	22,000	22,000	23,000	46,000	46,000	46,000	46,000	46,000	23,000	-	-	-	320,000
Planer Wages & Benefits	-	-	-	8,000	8,000	8,000	8,000	8,000	5,000	-	-	-	45,000
Fuel & Oil	4,000	4,000	8,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	76,000
Equipment Maintenance & Repair	6,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	86,000
Contract Equipment/Rental	15,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-	-	-	23,000
Total Milling	47,000	37,000	42,000	75,000	75,000	75,000	75,000	75,000	49,000	-	-	-	550,000
Opening Inventory Lumber	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Inventory Lumber	15,260	15,260	15,260	15,260	15,260	15,260	15,260	15,260	15,260	-	-	-	137,340
Cost Of Lumber	31,740	21,740	26,740	59,740	59,740	59,740	59,740	59,740	33,740	-	-	-	412,660
Total Cost of Sales	31,740	21,740	77,990	162,240	203,240	223,740	223,740	223,740	146,490	-	-	-	1,314,660
Gross Margin	(31,740)	(21,740)	(68,971)	(144,203)	(138,988)	120	195,120	117,120	68,351	-	-	-	(24,930)
Administration													
Management	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	84,000
Administration Wages/Expenses	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Office Expenses/Supplies	1,000	100	100	100	100	100	100	100	100	100	100	100	2,100
Licenses & Permits	100	100	100	100	100	100	100	5,000	100	100	100	100	6,100
Professional Fees	500	500	12,000	500	-	-	-	-	-	-	-	-	13,500
Honorariums	300	-	-	300	-	-	300	-	-	-	-	-	900
Communications	1,200	1,200	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	17,400
Donations/Promotions	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Travel Expenses	6,000	6,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	22,000
Truck Lease	930	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	17,430
Bank Interest & Charge	7,100	7,100	8,000	8,000	8,000	8,000	8,000	5,000	4,000	4,000	4,000	4,000	75,200
Total Administration	29,330	28,700	36,400	25,200	24,400	24,400	24,700	26,300	20,400	20,400	20,400	20,400	301,030
Income (Loss) Before Sub	(61,070)	(50,440)	(105,371)	(169,403)	(163,388)	(24,280)	170,420	90,820	47,951	(20,400)	(20,400)	(20,400)	(325,960)

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Assumptions
2000 - 2001

	Conversion		Stumpage		Cost of Logs
fbm	m3	Total m3	Total fbm	Per m3	41 per m3
195	1	20,000	3,900,000	10.3	
	\$/Tonno	Planer	# of Days	Lumber Price	
	13	50,000 fbm Per day	Per month	400 per mbfm	
Trucking:	13		20	Drying Time is 4 weeks	
Felling & Sk:	13				

Log Inventory Plan (m3)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Starting Inventory	26,000	24,500	21,000	17,000	13,000	9,000	5,000		1,000	1,000	1,000	3,500	11,000
Logs Delivered	-	-	-	-	-	-	-	-	-	-	2,500	7,500	10,000
Logs Milled	1,500	3,500	4,000	4,000	4,000	4,000	4,000						25,000
Ending Inventory	24,500	21,000	17,000	13,000	9,000	5,000	1,000		1,000	1,000	3,500	11,000	21,000
	Cost of Logs												
Starting Inventory	1,066,000	1,004,500	861,000	697,000	533,000	369,000	205,000		41,000	41,000	41,000	143,500	451,000
Logs Delivered	-	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000
Logs Milled	61,500	143,500	164,000	164,000	164,000	164,000	164,000						1,025,000
Ending Inventory	1,004,500	861,000	697,000	533,000	369,000	205,000	41,000		41,000	41,000	143,500	451,000	861,000
	Lumber Inventory Plan (mbfm)												
Starting Inventory	763,000	1,026,250	1,340,500	1,042,500	994,500	946,500	848,500		950,500	950,500	950,500	950,500	950,500
Sawmill Production	292,500	682,500	780,000	780,000	780,000	780,000	780,000		-	-	-	-	4,875,000
Planing Production	-	300,000	1,000,000	750,000	750,000	800,000	600,000		-	-	-	-	4,200,000
Lumber Sales	29,250	368,250	1,078,000	828,000	828,000	878,000	678,000		-	-	-	-	4,687,500
Drying Inventory	1,026,250	1,340,500	1,042,500	994,500	946,500	848,500	950,500		950,500	950,500	950,500	950,500	950,500

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Revenue and Expenses
2000 - 2001

Revenue	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Lumber Sales	11,700	147,300	431,200	331,200	331,200	351,200	271,200	-	-	-	-	-	1,875,000
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	11,700	147,300	431,200	331,200	331,200	351,200	271,200	-	-	-	-	-	1,875,000
Cost of Sales													
Logging													
Felling & Skidding	-	-	-	-	-	-	-	-	-	26,813	80,438	107,250	214,500
Log Hauling	-	-	-	-	-	-	-	-	-	26,813	80,438	107,250	214,500
Ice Bridge Construction	-	-	-	-	-	-	-	-	-	25,000	-	-	25,000
Road Construction & Mtce	-	-	-	-	-	-	-	-	-	22,250	59,000	36,250	117,500
Reforestation Fees	-	-	-	-	-	-	-	-	-	-	77,250	128,750	208,000
Other	-	-	-	-	-	-	-	-	-	1,625	10,375	30,500	42,500
Total Logging	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000	820,000
Opening Inventory	1,066,000	1,004,500	861,000	697,000	533,000	369,000	205,000	41,000	41,000	41,000	143,500	451,000	1,066,000
Closing Log Inventory	1,004,500	861,000	697,000	533,000	369,000	205,000	41,000	41,000	41,000	143,500	451,000	861,000	861,000
Cost of Logs	61,500	143,500	164,000	164,000	164,000	164,000	164,000	-	-	-	-	-	1,025,000
Milling													
Sawmill Wages & Benefits	22,000	46,000	46,000	46,000	46,000	46,000	30,000	10,000	-	-	-	-	292,000
Planer Wages & Benefits	-	5,000	8,000	8,000	8,000	8,000	6,000	-	-	-	-	-	43,000
Fuel & Oil	4,000	6,000	10,000	10,000	10,000	10,000	8,000	5,000	5,000	-	-	-	68,000
Equipment Maintenance & Repair	6,000	10,000	10,000	10,000	10,000	10,000	10,000	8,000	5,000	-	-	-	79,000
Contract Equipment/Rental	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-	-	-	9,000
Total Milling	33,000	68,000	75,000	75,000	75,000	75,000	55,000	24,000	11,000	-	-	-	491,000
Opening Inventory Lumber	137,340	-	-	-	-	-	-	-	-	-	-	-	137,340
Closing Inventory Lumber	21,319	21,319	21,319	21,319	21,319	21,319	21,319	21,319	-	-	-	-	170,550
Cost of Lumber	149,021	46,681	53,681	53,681	53,681	53,681	33,681	2,681	11,000	-	-	-	457,790
Total Cost of Sales	210,521	190,181	217,681	217,681	217,681	217,681	197,681	2,681	11,000	-	-	-	1,482,790
Gross Margin	(198,821)	(42,881)	213,519	113,519	113,519	133,519	73,519	(2,681)	(11,000)	-	-	-	392,210
Administration													
Management	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	84,000
Administration Wages/Expenses	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Office Expenses/Supplies	1,000	100	100	100	100	100	100	100	100	100	100	100	2,100
Licenses & Permits	100	100	100	100	100	100	100	5,000	100	100	100	100	6,100
Professional Fees	-	-	12,000	-	-	-	-	-	-	-	-	-	12,000
Honorariums	300	-	-	300	-	-	300	-	-	-	-	-	900
Communications	1,200	1,200	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	17,400
Donations/Promotions	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Travel Expenses	6,000	6,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	22,000
Truck Lease	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Bank Interest & Charge	7,100	7,100	8,000	8,000	8,000	8,000	8,000	5,000	4,000	4,000	4,000	4,000	75,200
Total Administration	29,400	28,200	36,400	24,700	24,400	24,400	24,700	26,300	20,400	20,400	20,400	20,400	300,100
Income (Loss) Before Sub	(228,221)	(71,081)	177,119	88,819	89,119	109,119	48,819	(28,981)	(31,400)	(20,400)	(20,400)	(20,400)	92,110

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Assumptions
2001 - 2002

	Conversion		Stumpage		Cost of Logs
fbm	m3	Total m3	Total fbm	Per m3	41 per m3
195	1	20,000	3,900,000	10.3	
	\$/Tonne	Planer	# of Days	Per month	Lumber Price
Trucking	13	50,000 fbm Per day	20		400 per mbfm
Felling & Sk	13				Drying Time is 4 weeks

	Log Inventory Plan (m3)													Total
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
Starting Inventory	21,000	21,000	17,500	13,500	9,500	5,500	1,500	-	-	-	2,500	10,000	10,000	
Logs Delivered	-	-	-	-	-	-	-	-	-	2,500	7,500	10,000	20,000	
Logs Milled	-	3,500	4,000	4,000	4,000	4,000	1,500	-	-	-	-	-	21,000	
Ending Inventory	21,000	17,500	13,500	9,500	5,500	1,500	-	-	-	2,500	10,000	20,000		
	Cost of Logs													
Starting Inventory	861,000	861,000	717,500	553,500	389,500	225,500	61,500	-	-	-	102,500	410,000	410,000	
Logs Delivered	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000	820,000	
Logs Milled	-	143,500	164,000	164,000	164,000	164,000	61,500	-	-	-	-	-	861,000	
Ending Inventory	861,000	717,500	553,500	389,500	225,500	61,500	-	-	-	102,500	410,000	820,000		
	Lumber Inventory Plan (mbfm)													
Starting Inventory	950,500	950,500	1,064,750	766,750	868,750	820,750	922,750	686,000	686,000	686,000	686,000	686,000	686,000	
Sawmill Production	-	682,500	780,000	780,000	780,000	780,000	292,500	-	-	-	-	-	4,095,000	
Planing Production	-	500,000	1,000,000	600,000	750,000	600,000	500,000	-	-	-	-	-	3,950,000	
Lumber Sales	-	568,250	1,078,000	678,000	828,000	678,000	529,250	-	-	-	-	-	4,359,500	
Drying Inventory	950,500	1,064,750	766,750	868,750	820,750	922,750	686,000	686,000	686,000	686,000	686,000	686,000		

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Revenue and Expenses
2001 - 2002

Revenue	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Lumber Sales	-	227,300	431,200	271,200	331,200	271,200	211,700	-	-	-	-	-	1,743,800
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	-	227,300	431,200	271,200	331,200	271,200	211,700	-	-	-	-	-	1,743,800
Cost of Sales													
Logging													
Felling & Skidding	-	-	-	-	-	-	-	-	-	26,813	80,438	107,250	214,500
Log Hauling	-	-	-	-	-	-	-	-	-	26,813	80,438	107,250	214,500
Ice Bridge Construction	-	-	-	-	-	-	-	-	-	25,000	-	-	25,000
Road Construction & Mtce	-	-	-	-	-	-	-	-	-	22,250	62,500	20,000	104,750
Reforestation Fees	-	-	-	-	-	-	-	-	-	-	77,250	128,750	206,000
Other	-	-	-	-	-	-	-	-	-	1,625	6,875	46,750	55,250
Total Logging	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000	820,000
Opening Inventory	861,000	861,000	717,500	553,500	389,500	225,500	61,500	-	-	-	102,500	410,000	861,000
Closing Log Inventory	861,000	717,500	553,500	389,500	225,500	61,500	-	-	-	102,500	410,000	820,000	820,000
Cost of Logs	-	143,500	164,000	164,000	164,000	164,000	61,500	-	-	-	-	-	861,000
Milling													
Sawmill Wages & Benefits	10,000	46,000	46,000	46,000	46,000	46,000	20,000	-	-	-	-	-	260,000
Planer Wages & Benefits	-	8,000	8,000	8,000	8,000	8,000	6,000	-	-	-	-	-	46,000
Fuel & Oil	4,000	6,000	10,000	10,000	10,000	10,000	8,000	5,000	5,000	-	-	-	68,000
Equipment Maintenance & Repair	6,000	10,000	10,000	10,000	10,000	10,000	10,000	8,000	5,000	-	-	-	79,000
Contract Equipment/Rental	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-	-	-	9,000
Total Milling	21,000	71,000	75,000	75,000	75,000	75,000	45,000	14,000	11,000	-	-	-	462,000
Opening Inventory Lumber	170,550	-	-	-	-	-	-	-	-	-	-	-	170,550
Closing Inventory Lumber	7,155	7,155	7,155	7,155	7,155	7,155	7,155	7,155	-	-	-	-	57,240
Cost of Lumber	184,395	63,845	67,845	67,845	67,845	67,845	37,845	6,845	11,000	-	-	-	575,310
Total Cost of Sales	184,395	207,345	231,845	231,845	231,845	231,845	99,345	6,845	11,000	-	-	-	1,436,310
Gross Margin	(184,395)	19,955	199,355	39,355	99,355	39,355	112,355	(6,845)	(11,000)	-	-	-	307,490
Administration													
Management	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	84,000
Administration Wages/Expenses	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Office Expenses/Supplies	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Licenses & Permits	100	100	100	100	100	100	100	5,000	100	100	100	100	6,100
Professional Fees	-	-	12,000	-	-	-	-	-	-	-	-	-	12,000
Honorariums	300	-	-	300	-	-	300	-	-	-	-	-	900
Communications	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Donations/Promotions	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Travel Expenses	6,000	6,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	22,000
Truck Lease	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Bank Interest & Charge	7,100	7,100	8,000	8,000	8,000	8,000	8,000	5,000	4,000	4,000	4,000	4,000	75,200
Total Administration	28,900	28,600	36,500	24,800	24,500	24,500	24,800	26,400	20,500	20,500	20,500	20,500	301,000
Income (Loss) Before Sub	(213,295)	(8,645)	162,855	14,555	74,855	14,855	87,555	(33,245)	(31,500)	(20,500)	(20,500)	(20,500)	6,490

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Projected Cash Flow Statement
1999 - 2002

	1999/00												Summary
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Opening L/C	(850,000)	(341,330)	(522,030)	(696,411)	(793,574)	(843,721)	(734,261)	(430,101)	(205,541)	(75,100)	(213,000)	(658,400)	(850,000)
Payables	500,000	-	-	-	-	-	-	-	-	-	-	-	500,000
Operations													
Logging	-	-	-	-	-	-	-	-	-	102,500	410,000	512,500	1,025,000
Milling	47,000	37,000	42,000	75,000	75,000	75,000	75,000	75,000	49,000	-	-	-	550,000
Admin	29,330	28,700	36,400	25,200	24,400	24,400	24,700	26,300	20,400	20,400	20,400	20,400	301,030
Loader	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	180,000
Capital	200,000	100,000	90,000	-	-	-	-	-	-	-	-	-	390,000
Sales	-	-	9,019	18,038	64,253	223,860	418,860	340,860	214,841	-	-	-	1,289,730
DevCorp	1,300,000	-	-	-	-	-	-	-	-	-	-	-	1,300,000
Closing L/C	(341,330)	(522,030)	(696,411)	(793,574)	(843,721)	(734,261)	(430,101)	(205,541)	(75,100)	(213,000)	(658,400)	(1,206,300)	(1,206,300)

	2000/01												Summary
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Opening L/C	(1,206,300)	(772,000)	(835,900)	(531,100)	(314,600)	(97,800)	139,000	315,500	250,200	203,800	65,900	(277,000)	(1,206,300)
Payables	-	-	-	-	-	-	-	-	-	-	-	-	-
Operations													
Logging	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000	820,000
Milling	33,000	68,000	75,000	75,000	75,000	75,000	55,000	24,000	11,000	-	-	-	491,000
Admin	29,400	28,200	36,400	24,700	24,400	24,400	24,700	26,300	20,400	20,400	20,400	20,400	300,100
Loader	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	180,000
Capital	100,000	100,000	-	-	-	-	-	-	-	-	-	-	200,000
Sales	11,700	147,300	431,200	331,200	331,200	351,200	271,200	-	-	-	-	-	1,875,000
DevCorp	600,000	-	-	-	-	-	-	-	-	-	-	-	600,000
Closing L/C	(772,000)	(835,900)	(531,100)	(314,600)	(97,800)	139,000	315,500	250,200	203,800	65,900	(277,000)	(722,400)	(722,400)

	2001/02												Summary
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Opening L/C	(722,400)	(587,300)	(474,600)	(169,900)	(13,500)	203,200	359,900	486,800	431,400	384,900	246,900	(96,100)	(722,400)
Payables	-	-	-	-	-	-	-	-	-	-	-	-	-
Operations													
Logging	-	-	-	-	-	-	-	-	-	102,500	307,500	410,000	820,000
Milling	21,000	71,000	75,000	75,000	75,000	75,000	45,000	14,000	11,000	-	-	-	462,000
Admin	28,900	28,600	36,500	24,800	24,500	24,500	24,800	26,400	20,500	20,500	20,500	20,500	301,000
Loader	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	180,000
Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales	-	227,300	431,200	271,200	331,200	271,200	211,700	-	-	-	-	-	1,743,800
DevCorp	200,000	-	-	-	-	-	-	-	-	-	-	-	200,000
Closing L/C	(587,300)	(474,600)	(169,900)	(13,500)	203,200	359,900	486,800	431,400	384,900	246,900	(96,100)	(541,600)	(541,600)

*Projections based on capital investment being made.

Great Slave Lake Forest Products Ltd.
Capital Purchases Budget

Equipment Purchases	Cost
Linear Circular Saw Bucking Deck	30,000
18" Cambio Ring Debarker	30,000
Disposable Band Resaw	50,000
Thin Kerf Edger Sawblades	10,000
Additional Power Generator	30,000
Quick Attach for Komatsu 380	25,000
Lumber Grapple	25,000
Steel & Miscellaneous Parts	40,000
Beehive Burner	10,000
Planer	50,000
Planer Building	40,000
Total Equipment Purchases	340,000
Contract Steel Fabrication NTCL	20,000
Capital Project Supervision	20,000
Travel Expenses for Equipment Purchase	10,000
Total Capital Budget	390,000

