Preservation and Development of the CNR Kinghorn Line (Thunder Bay – Longlac)

FEASIBILITY STUDY

PREPARED FOR

THE MUNICIPALITY OF GREENSTONE

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Funded jointly by FedNor and
The Greenstone Economic Development Corporation
Directed through Iain Angus & Associates

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CONSULTANT SERVICES

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1 EXECUTIVE SUMMARY

Background

CN announced in December of 2004 that it was no longer interested in operating the Kinghorn Subdivision, which connects Thunder Bay with Longlac. It placed the line on its 'discontinue' list and within a year from the announcement will be in a position to offer the line for sale or lease. The Municipality of Greenstone, the largest community that the line runs through, quickly identified the line as an important part of its long-term economic development program. In the summer of 2005 the firm of Thunder Win Consulting was engaged to examine the traffic on the line - both existing and potential - and to determine if an independent short-line operation could be profitable. A second phase will examine the engineering aspects of the line and to assist in the determination of its residual value for the purposes of negotiations with CN.

Potential Effects of the line being abandoned

The Consultants have examined the nature of the services that were provided along the line as well as the economy of the surrounding area. It is clear that the cessation of services will have a very negative impact on the region. Specifically, the Consultants have identified the following impacts:

1. Lower Commodities Prices Received by local and regional Industries
2. Higher Transportation Costs and Lower Profits for Rail Shippers
3. Loss of Market Options for Shippers
4. Lost Economic Development Opportunities for Regional Communities
5. Loss of Local Tax Base Needed for Basic Government Services
6. Potential Increases in Highway Accidents Due to Increased Truck Traffic
7. Increased Road Damage Costs on Municipal Roads and Provincial Highways

Potential effects of the line being retained as a short line

As a result of their analysis of the volumes available that could be moved on the line, the Consultants have determined that the total impact on the Kinghorn area will be substantial. Direct benefits include labour expenditures for 18 new positions at a value of $2.0M per year, and operating expenditures (supplies and purchased services) at $1.5M per year, for a total of $3.5M per year. Indirect Benefits total $1.65M and include the creation of 47 full time equivalent (FTE) jobs. When the appropriate multiplier is applied the overall economic impact is $10.3 million a year for the surrounding area.

Volumes and Profitability

The Consultants contacted all of the possible users of the line and determined what volumes of what commodities would be available to be shipped on the line. The commodities ranged from round wood and wood chips, to processed lumber and fuel. The conclusions of the Consultants are based on a good faith belief that these volumes will be carried on a short line railroad. Ultimately, the Municipality of Greenstone must reach a series of agreements with the shippers as to volumes and prices if the project is to be considered viable.

That being said, the Consultants have developed three separate scenarios designed to predict the profitability of the line based on proscribed volumes; Pessimistic, Most Likely and Optimistic. The following table reflects the results of the three scenarios and shows the extent of the variability in the operation:

	Pessimistic	Most Likely	Optimistic
Volumes	784 cars	16,269 cars	32,281 cars
Revenue	$421,000	$5,647,000	$8,566,000

One of the challenges presented to the Consultants was that the cost of acquiring and upgrading the rail line itself was excluded from the scope of their work. Accordingly, their Pro-Forma Income Statement does not include the cost of track and structure capital. It does, however, include the cost of acquiring the necessary rolling stock.

As the following table shows, the line can be profitable as an operating entity.

	Year 1	Year 2	Year 3	Year 4	Year 5
Volumes-Carloads	16,269	17,082	26,316	27,632	29,013
Revenue	$ 5,646,987	$ 5,929,337	$ 8,566,193	$ 8,994,503	$ 9,422,812
Oper. Expenses	$ 5,060,865	$ 5,312,783	$ 7,658,832	$ 8,042,173	$ 8,350,515
Net Oper. Income	**$ 586,122**	**$ 616,554**	**$ 907,361**	**$ 952,330**	**$ 1,072,970**
Depreciation	$ 338,819	$ 355,760	$ 513,972	$ 539,972	$ 565,369
Interest Expenses	$ 208,939	$ 219,385	$ 316,949	$ 332,797	$ 348,644
Net Income	**$ 38,364**	**$ 41,409**	**$ 76,440**	**$ 79,561**	**$ 158,957**
NI (freight rev only)	**($34,457)**	**($35,055)**	**($37,666)**	**($39,949)**	**$32,767**

It is also important to note that when the depreciation line (a non-cash item) is removed there is in excess of $375,000 a year available for capital repayment should that be necessary.

When operating, the Kinghorn moved very little of the area's wood fibre. The majority continues to go by truck. Assuming that the creation of an independent railway company to operate the Kinghorn leads to a re-alignment of the movement of both round wood chips and processed wood products, it is conceivable that the cost per M^3 can be significantly reduced.

A pilot project done with Domtar Forest Products in Val d'Or, Quebec showed that significant cost savings could be experienced if transportation was shifted from truck to rail. Benefits not only come from the reduced transportation costs, but also from reduced road maintenance costs and elimination of inventories due to spring load restrictions. In addition to the cost savings identified, a significant reduction in greenhouse gas emissions is achieved. The implementation of transportation by rail in that operation alone will reduce the total emissions by 48 000 tons of CO_2 per year. It is important to note that the rail operation study was very similar to that of the Kinghorn Sub, both in products carried, and attributes of the line (physical geometry, line length, etc.). The following chart indicates the degree of savings by shifting from truck to rail:

INFRASTRUCTURE TYPE	TRAIN ($/m^3)	Truck ($/m^3)
Restoration of chippings	---	$0.82
Road maintenance	$0.28	$1.76
Layout of siding	$0.08	---
Total infrastructure cost	*$0.36*	*$2.58*
TRANSPORTATION MODE		
Transportation by truck	$3.22	$13.90
Transport by train	$10.15	---
Load	---	$0.65
Unload	$1.74	$1.75
Cost of forest siding operation	$0.09	---
Total transportation cost	*$15.20*	*$16.30*
Total infrastructure + transportation cost	**$15.56**	**$18.88**

A reduction of $3.32 per M^3 would go a long way to achieving the $5 per M^3 that the Forest Crisis Coalition has been requesting of the Ontario Government. It would represent significant savings to the forest industry operating within the sphere of the Kinghorn Subdivision.

Recommendations

Top Priority (Immediate action)

After item 1, action items 2 - 6 should be conducted in parallel.

1. The Municipality of Greenstone must determine its preferred strategy and have a reserve strategy in case the first one meets insurmountable difficulties and do this with all due speed.

2. The Municipality should obtain support from neighbouring municipalities and senior levels of government, at the same time inform the population and gather its feedback and hopefully support for the acquisition or other option.

3. The Municipality should begin immediately to lobby the Government of Ontario on the proposed short-line solution to at least one of the over-arching problems of the region - that of the freight transport industry, and provide it with solutions proposed within this report.

4. The Municipality should conduct an information campaign to inform its population, gather its feedback and hopefully support for the acquisition or other option.

5. Hire an expert professional railway engineer to determine the value of the line and necessary rehabilitation costs.

6. Signify interest to CN rapidly and begin negotiations towards the preferred acquisition or other option.

High Priority (Near-term Action)

1. Prepare a business plan if the municipally-owned or community railway model is selected;

2. Take concrete steps to interest short-line railway operators including large short line corporations that are looking to expand (such as Québec Railway Corporation - Chemins de fer du Québec) if it is decided to confine the operation or ownership and operation to such a private sector operator;

3. Apply for and obtain federal and provincial funding for investment in the line.

Lower Priority (Action within months)

1. Stimulate or take the lead in creating partnerships with various transport and shipping interests;

2. Work with community college on creation of training scheme;

3. Carry out studies to prove-out innovative projects such as intermodal terminals and movements.

Conclusion

The consultants have analyzed the critical factors facing the Kinghorn Sub. In the context of the impact it would have on the municipality of Greenstone and surrounding region. As it can be observed by other short line success stories, the abandonment of the line by CN can provide tremendous opportunities for the region, especially when viewed from the synergistic results it could provide to the complementary projects going on or being planned for in Northwestern Ontario.

It is also important to note, that while the Pro-Forma Financial Statements show the potential for a viable operation, ultimately it will be the combination of the players that come to the table, organizational structure, financial structure of investment, political will, and the determination to succeed that will make the difference between success and failure.

Our research has looked at the risk inherent in this type of operation. A range of outside pressures, however, also offer an insight into the changing economic dynamics of this region, demonstrating that the impact on the economy due to an over reliance on tracking industry, cannot be taken lightly. The missed opportunities of not having a second choice can be just as damaging.

The financial projections are obviously susceptible to influences and changes from a number of sources, and with the industry dynamics in Northern Ontario changing fast, the level of risk is fairly high. However, based on a comprehensive review of the short-line industry in North America, the consultants believe that a focused management team and innovative industry practices could make for a viable short-line operation.

The consultants suggest that the information provided in the report should be sufficient to attract a *knowledgeable* investor who would then be in a position to use it's internal cost of capital and financial structure to determine the feasibility and operational fit of such investment.

2 INTRODUCTION AND BACKGROUND

On May 13th 2004 in its 'Three Year Rail Network Plan' (mandated by law), CN announced its intention to abandon Mileage 0.00 to 195.60 of the Kinghorn Subdivision.

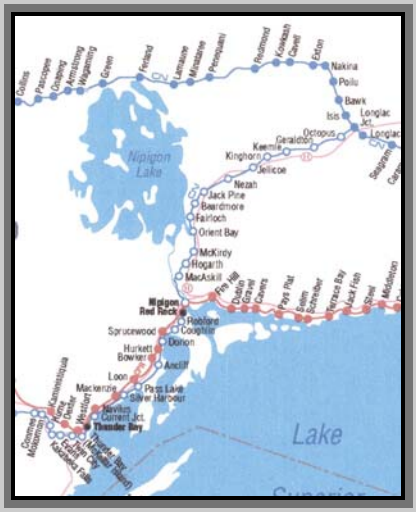
Because the subdivision is an integral and important part of the Economy of the region, the Municipality of Greenstone retained Iain Angus and Associates to assist the Municipality's desire to secure the continuation of the line as an operating railway.

The project was based on the laudable assumption that not only would the industry of the region suffer from the discontinuation of the line, but also other potential projects to boost the Economy of Northern Ontario would fail to materialize if the announced discontinuation was carried out.

Following issuance of a Request for Proposals, Thunder-Win Consultants and its circle of partners was awarded a contract to conduct the study.

The overall goal of this project was to analyze current and potential future traffic and recommend the full or partial retention, or abandonment of the Kinghorn Subdivision. The consultants were contracted to:

a. Confirm the existing volumes on the Kinghorn subdivision line;
b. Identify additional volumes that could become source of revenues for an operator of the line;
c. Perform a cost/benefit analysis that would result in a recommendation of the retention or abandonment of the line;
d. Identify the impact on the economy of the region as well as the impact on a future project(s);
e. Identify necessary rolling stock required to operate as well as the cost of operation and maintenance (track and rolling stock; RTC and C&S as appropriate).



The Kinghorn Subdivision

KEY

CNR
CPR

Kinghorn Subdivision is a CN-owned track between Current Junction in Thunder Bay and Longlac Junction in Longlac

3 TRAFFIC VOLUME

The traffic volume on the Kinghorn subdivision have been segregated into three components:

a. *Linehaul component*: This is the volume that would be hauled by the short line operator on the Kinghorn subdivision a distance of 15 miles or more.
b. *Switching component:* This is the volume that would be hauled by the short line operator on the Kinghorn subdivision a distance of less than 15 miles.
c. *Other railway component:* These are the volumes or revenue generated on the Kinghorn subdivision by charging for the right to run their trains to other companies. This would happen in case of derailment on the CP line or simply for easiest access to the rail by tourist train or else. We note that the scenery between Thunder Bay and Nipigon is gorgeous in areas where the rail line parallels Lake Superior.

It is important to realize that while the volumes identified by the consultants is information obtained from the concerned companies it was impossible for the consultants to obtain any guarantee that the companies would deal with a short line operation. However the consultants have evaluated each of the companies and show their volume in one or more scenarios, which were:

a. Pessimistic volumes: This is the volume that the consultants feel would still remain even in the most pessimistic scenario.
b. Likely volumes: Included are those volumes from the companies that the consultants feel will use the short line operation on condition that the rates and services proposed are of economic benefit to them.
c. Optimistic volumes: In addition to the optimistic volumes forecast, we have added all potential customers that have manifested interest but are either not up and running yet, or require that the cost efficiency be demonstrated.

It has been a significant challenge to obtain information from some of the customers. Note that to respect and protect the privacy of the customer's information, we have provided the total volumes for each of the scenarios that are included in Appendix A without revealing the source.

4 REVENUES

4.1 Methodology

Revenue is derived from a variety of components - hauling materials, switching cars, subcontracting work, charging for running rights on the line, etc. Throughout the cost/benefit analysis (pro forma statement) we have identified the source, the volumes, the required number of cars as well as the distances (mileage) that the commodities would be hauled.

The rate per car is dictated by variables such as weight, number of miles hauled, product hauled etc. It has been a challenge to precisely identify exact rates for similar short line operations - all were protective of financial information. However, through our research we were able to identify enough information to determine average rates charged by American and Canadian short line operators. The average rate of $340 for line haul component (15 miles and more) is derived from the 2004 financial report of Genesee Wyoming[1] and the North Dakota Strategic Freight Analysis[2]. The Goderich and Exeter Railway[3] and the Barrie-Collingwood Railway[4] in southern Ontario and others on similar operations in the northern part of the US charge similar rates. As for the switching rates we have assumed that every movement required less than 15 miles would be considered only as a switching component and established a charge of $150 per car per switch (no linehaul component).

As mentioned previously we have segregated the Traffic volumes into three different scenarios - pessimistic, likely and optimistic. Since revenues are primarily based on volumes generated on the line, we have used the same scenarios to show the potential revenues.

Each of the potential revenue types has been categorized as follows:

1. **Revenue from existing shippers who used CN before the abandonment of the line *(linehaul component).***

   Included are customers that CN served prior to the abandonment of the line and would return *only if the price was attractive*. We examined the numbers of loaded cars (payloads) going southbound and northbound and used the average rate per payload for short-line North American short-line operators.

2. **Revenue from existing shippers who used CN before the abandonment of the line *(switching component).***

   Included are customers described in item 1 served by CN prior to the abandonment and where the distance hauled would be less than 15 miles.

3. **Revenue from potential new shippers *(linehaul component).***

   Included are potential customers arising from new forestry technology developments or others that the consultants identified throughout the process and where the product would be hauled a distance greater or equal to 15 miles.

4. **Revenue from potential new shippers *(switching component).***

1 http://phx.corporate-ir.net/phoenix.zhtml?c=64426&p=irol-reports
2 http://ntl.bts.gov/lib/13000/13100/13134/
3 http://www.railamerica.com/railmaps/PDFs/GEXR-Rate%20Tariff%202%20September%202000.pdf
4 http://www8.cpr.ca/cms/English/Customers/New+Customers/Where+We+Ship/Rail+Partners+Profiles/Barrie-Collingwood+Railway+-+BCRY.htm?PrintMe=1

Included are potential customers arising from new forestry technology developments or others that the consultants identified throughout the process and where the product would be hauled a distance less than 15 miles.

5. Revenue from existing shippers who use carriers other than CN *(linehaul component).*

Included are customers that use either CP rail and/or truck transport and haul their products a distance greater or equal to 15 miles.

6. Revenue from existing shippers who use carriers other than CN *(switching component).*

Included are customers that use either CP rail and/or truck transport and haul their products a distance less than 15 miles.

7. Revenue from potential future shippers if Kruger plant at Lake Octopus *(linehaul component).*

Included are the potential volumes hauled a distance greater or equal to 15 miles if Kruger builds its new mill at Lake Octopus.

8. Revenue from potential future shippers if Kruger plant at Lake Octopus *(switching component).*

Included are the potential volumes hauled a distance of less than 15 miles if Kruger builds its new mill at Lake Octopus.

9. Revenue from potential future shippers if Kruger plant North of CN mainline *(linehaul component).*

Included are the potential volumes hauled a distance greater or equal to 15 miles if Kruger builds its new mill North of the CN main line.

10. Revenue from potential future shippers if Kruger plant North of CN mainline *(switching component).*

Included are the potential volumes hauled a distance of less than 15 miles if Kruger builds its new mill North of the CN main line.

11. Revenue from sub-contract work with other railways or companies.

While it is very difficult to speculate on potential sub-contracting work without conducting a far more in-depth study, other short line operations have proven themselves being very successful in car, and locomotive emergency and wreck repair.

Some rail companies could be interested in sub-contracting work at cheaper rates for emergency repair. Also the potential of a tourist train, a passenger train added to the value of sub-contracting and would required a very close look at the business plan level.

Even a major company like Bombardier has required subcontractors in the past for truck repair, damper re-qualification, wheel re-profiling etc. In the event that the Bombardier shop at Thunder Bay or elsewhere would operate at full capacity, wreck repair could also be sub-contracted to the short line operations.

12. Revenue from Via Rail, American Orient Express, and other rail operators

Other railways would pay for running rights on the line while transiting from/to CN/CP when their track is congested; due to derailments; the potential tourist train operation; Via Rail when their trains are faced with

derailments on the CN main line; or even the potential operation of a passenger train between Sudbury and Winnipeg through Thunder Bay. All these potential revenues and more have been looked at during the study.

Some variants of open access and running rights may include allowing open access on short lines. Many short line operators are wary of if not downright opposed to having their lines open to running rights although some support the granting of additional running rights to short lines so that they can use the track of the connecting long-haul carriers. Allowing open access to short lines could have negative impacts on the ability of an individual short line to maintain its capital stock. Only one or two major shippers on a line may have traffic that is attractive to someone exercising running rights. Typically such shippers may generate a significant portion of a short line operator's revenue. Even a modest loss in average revenue per carload could, at the margin, reduce the funding available for capital expenditures. Clearly the issue of open access is much wider than how it affects short line sustainability. If open access to short lines is to be adopted as a policy, the determination of the access price should take into account the full cost of service-including ongoing capital requirements-of the host railway.[5]

Projected revenues based on the projected volumes are detailed in Appendix A.

4.2 Fairness

The consultants believe that it is important to note that while the rate per carload is normally subject to negotiation between the rail operator and the shipper there are Canadian Government regulations that can be invoked to protect shippers from price gouging.

A good example where the Canadian Transportation Agency has been involved in order to protect a company in the forest industry in Northern Ontario against unfair competitiveness is at http://www.cta-otc.gc.ca/rulings-decisions/orders/1995/R/1995-R-13_e.html, quoted in part:

> In September 1994, the Olav Haavaldsrud Timber Company Limited[6] filed an application with the National Transportation Agency requesting that it investigate whether the rates charged by CN for the movement of logs from Oba to Becker, Exton to Becker and Longlac to Becker (all in Ontario), were "… unjust, unreasonable and prejudicial to the public interest…"
>
> Haavaldsrud claimed that it was a 'captive rail shipper' with no other viable or economic transportation alternative available to move logs from Oba to Becker, due to the seasonal condition of the road system. It was of the view that, without reasonable rail transportation costs, a significant part of its wood supply could be lost to competitors located closer to the supply source, and that this would lead to a loss of employment at the sawmill which, in turn, could damage the fragile economy of "… (its) remote northern community."
>
> Haavaldsrud had being paying $400 per car to CN in 1992 for movements from Oba to Becker, which the company considered just and reasonable. However, when CN 'adjusted' the rate to $850 per car in September 1994 (an increase of 112 percent over that time), Haavaldsrud claimed that CN was taking advantage of a monopoly situation. Further, the company submitted that CN's rate of $1,225 per car for movements from Exton to Becker was prejudicial to the public interest to the extent that "… more favourable rates may be charged to other shippers of logs or similar commodities in northern Ontario for substantially similar movements set out in confidential contracts."

As a result of the enquiry, the CTA ordered that CN remove the prejudicial feature in the rate applicable to the movements from Oba to Becker; upgrade the storage track at Neswabin to allow the switching manoeuvres of the movements to take place at Neswabin; and revise the rate taking into consideration the actual costs of the movements through Neswabin.

This case clearly demonstrates the power of the Canadian Transportation Agency to step in to restrain railways that tried to charge egregious rates to captive or semi-captive customers. While we have used $340/carload we took into consideration what was done elsewhere in Canada and North America to avoid situations like the above.

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5 "Sustaining Capital Requirements for the Short Line Railway Industry", Research conducted for the Canada Transportation Act Review, prepared by Research and Traffic Group, February 2001

6 Still in business, 2005 - http://www.haavaldsrud.com/home.shtml

4.3 Potential New Users

4.3.1 Bio-Fuel

The consultants made inquiries into the potential of bio-fuel and related fuel combustion operations. In Europe governments have made forestry companies remove waste from the bush for years. In Canada, more specifically in Ontario, the Minister of Natural Resources has proposed similar measures to legislate this alternative to traditional methods (leaving waste in situ) in support of a greener environment. However, regulations are not expected to be introduced for at least 2 to 3 years.

The senior authority we interviewed stated that a co-generation power plant using forestry waste would not be viable at all if the waste had to be transported more than 150 km. A similar affirmation was made in an article entitled "Biorefinery targets energy forest waste" in the *Northern Ontario* Business newspaper (October 2005) where the author mentioned that it would not be economical to haul the low-value wood out of the forest.

When we asked if there was any potential for sale or export of waste by way of a combination of truck and/or rail and/or short sea as a shipping mode we were informed that the waste produced by the Forest Industry would be enough to support the production of the co-generation plant that are planned to be built in Northern Ontario.

While we understand the importance of identifying any potential source of volume and revenue our inquiry shows that new bio-fuel technology would not create any additional traffic on the Kinghorn subdivision therefore not bring any potential revenue at this point.

The consultants were not in a position to fully explore the potential of this, or possible use of construction waste and/or hog fuel, so our findings are preliminary. A full Business Case would be required to analyze and arrive at solid conclusions.

4.3.2 Mining

The mining industry ships annually 243 million tonnes of crude and fabricated minerals on Canadian rails. Transportation costs have traditionally been responsible of 25% to 50% of the total cost therefore the mining companies and their customers strongly depend on efficient, competitive and available rail, marine and trucking networks to remain internationally competitive.

In addition to gold, there are active exploration projects for copper-nickel-platinum group elements, copper-zinc, and diamonds throughout the district of Thunder Bay north. While it is impossible within the scope of this study for the consultants to identify any potential volume coming from the exploration activity, it is important to keep in mind that rail is often the only economic way to haul mining products from many regions. **Studies by and for the Canadian mining industry and reported to Transport Canada have highlighted the importance of the rail transport for their industry.**

4.3.3 Thunder Bay Port Authority

Discussions were held with the Chief Executive of the Thunder Bay Port Authority who made the following observations:

> The Port Authority's Keefer Terminal is served by both CP and CN rail and is capable of loading barges or ships for furtherance to world markets. In theory the short line would provide an alternative to trucking to Thunder Bay for mills not located on CP lines east of Thunder Bay wishing to load vessels at Keefer Terminal.
>
> The viability of the short line railway would be dependent on the number of mills served by the railway. The unfortunate state of the smaller mills east of Thunder Bay would reduce the likelihood of having the

necessary tonnage to sustain the short line. Because of the short distance, economics would be dictated by trucking rates to Thunder Bay.

In the view of the Consultants, the positive results resulting from the FERIC truck-barge pilot project on the Québec North Shore should be examined in a business case study for their applicability to the Thunder Bay/Greenstone situation.

At the same time, it could be better determined if the Port Authority would fit in as a "potential new user" or as a "prospective partner".

5 COST OF OPERATIONS

5.1 Capital Requirements

5.1.1 Track and Infrastructure

The capital cost of purchasing or leasing the track, its infrastructure and the maintenance facility were specifically excluded from the mandate of the study. However, we are aware that one of the reasons put forward by CNR for closing the line ahead of the abandonment timetable was the costs associated with bringing the track up to standard and the repairs that would be required for several bridges and the Pass Lake trestle. We therefore note in passing that the costs associated with such repairs would of course have to be factored into any subsequent business plan. Such costs would also be taken into account when negotiating for purchase of the line and subject to the requirements stipulated in Division IV of the Canada Transportation Act[7].

Maintaining track structures is the primary requirement for ongoing railway capital expenditures. At a minimum tie, ballast and rail renewal must be undertaken to ensure safe operations and the ability of a railway to stay in business. At the next level, increased expenditures are required in the longer-term to maintain the condition of the track. Such expenditures can be deferred in response to a lack of cash, but eventually deferral results in lower speeds, degradation of service and higher operating costs. A higher level of expenditure is required to recover from periods of deferred maintenance and/or to improve track conditions and speed. There is a wide range in the short line track classification and condition. A nominal capital expenditure in the range of $2,500 to $7,500 per km per year might be expected for all but the lightest density and the heaviest density short lines. Expenditures on many lines, however, have been deferred and higher investments in the shorter-term will be required to maintain operations at the specified level. Maintenance deferrals of as high as $20,000 to $25,000 per km have been mentioned. Alternatively, some short line operators may find it advantageous to operate a line at a lower classification and not make the investments. This assumes that shippers do not object to slower speeds. Such a strategy, however, cannot last forever. While it might take up to a decade for the track to deteriorate, investments will eventually be necessary if the line is to remain in service.[8]

It is important to remember that profitability/feasibility of the operation and capital expenditures are inter-related and from the perspective of the potential buyer/investor, we include the following statement from the Canada Transportation Act Review published in 2001[9]

Short Line Railways and Capital Investment

An important by-product of the Canada Transportation Act was a short line rail sector that has evolved to become a vital element of the national rail freight system. Short line operators are important to customers because they offer choice in access or access where the alternative was no rail line at all. In addition to

[7] Transferring and Discontinuing The Operation of Railway Lines http://laws.justice.gc.ca/en/C-10.4/25311.html#rid-25503

[8] "Sustaining Capital Requirements for the Short Line Railway Industry", Research conducted for the Canada Transportation Act Review, prepared by Research and Traffic Group, February 2001

[9] Chapter 4 Competitive Rail Access: Issues Defined (http://www.reviewcta-examenltc.gc.ca/english/pages/final/ch4e.htm)

providing some local service, short lines are also important to mainline railways as feeders and collectors connecting to their own higher-density operations. Large rail company or small, the capital sustainability issue is the same: as inherently intense consumers of capital, railways need to be able to maintain an investment pace sufficient to maintain system performance and enhance productivity.

In comparison with CN and CPR, the nature of the short line industry and its limited history make a solid understanding of capital sustainability more elusive. However, by their nature, many short lines are low-traffic-density operations. Profits are marginal.

Very little direct information is available on capital spending by short line railways. For the most part, however, short lines need to invest in track renewal and upgrading. Many are already engaged in such programs. In the coming decade, short lines will need to replace or rebuild many of their locomotives. The most challenging capital expenditures facing short lines in the coming years are those required to upgrade track structures to handle the new mainline standard of 286,000-lb. freight cars. Many short lines lack the traffic base to accommodate such investments, and it remains to be seen what will happen to railways that cannot afford to upgrade to handle heavier cars.

As with the Class I a railway, the principal source of funds to renew short line assets is future earnings. Potential investors look for a diverse traffic base, reasonable prospects for growth and a solid relationship with a long-haul rail partner.

Some short lines have reported traffic increases since taking over from CN or CPR and have developed long-term reinvestment plans. Others have faced financial crisis because an important shipper has closed operations, or because of unanticipated and unavoidable major expenses. Still others can eke out a profit sufficient to stay in operation but are unlikely to survive in the longer term if essential spending cannot be funded and operating capacity degrades. In a few instances, capital renewal is not commercially justified, but municipalities — sometimes in conjunction with shippers — have stepped in to maintain a railway line while contracting out day-to-day operations to a short line operator.

Absent sufficient funds generated directly from revenues or investors, the options are few. Provincial governments have provided some capital funding for short lines. Saskatchewan, Ontario and New Brunswick have provided some assistance with start-up costs or directed funds to specific projects. Quebec has a program to match private investments in short line capacity rehabilitation and expansion. Another potential source of funds is the long-haul partners, though this option has yet to make it felt to any significant degree.

5.1.2 Equipment

The consultants have discussed the best way to equip a future short line railway with rolling stock. While the leasing option has been advanced, there is considerable interest in the expert group for purchase of appropriate freight cars, particularly the needed centre-beam cars, flat cars and wood chip cars.

Representative freight cars required are shown in Appendix H.

Inquiries and reading to date have pointed toward leasing, given the very tight car supply (if any) in North America, given the unprecedented move away from trucks towards rail by shippers, the dynamic economy and the tendency of railways not to invest in rolling stock if they can avoid it.

Another perspective on the availability situation is to quote from Railway Age magazine, October 17 2005:

“Despite a slight decline in new orders in the third quarter, the backlog of new freight cars on order and undelivered reached 60,986 on Oct. 1, slightly higher than the 59,416 cars backlogged on July 1. On Oct. 1, 2004 the backlog was 61,052. In this year's third quarter, 17,439 new cars were ordered vs. 19,132 in the second quarter, and 16,987 were delivered vs. 17,914 in the prior three months.”

Contacts with railway equipment companies have led to offers of small lots of cars for sale: one boxcar, twenty hopper cars, and similar quantities of other specialized cars. No one to date has shown any evidence of having cars in the numbers required by the Kinghorn subdivision project: 338 flat cars, 58 centre-beam cars and 94 wood chip cars. Leasing companies, on the other hand are ready to provide for the complete need if given a year or more of advance notice, or for a part of it immediately.

Centre-beam cars can be had for $400 per month net, flat cars for $400/mo. net each and wood chip cars, said to be in very short supply for $380/mo. net, if available. Sale of any centre-beam cars for late next year would be for $80,000 s/h, and flat cars and wood-chip cars would sell for $70,000 each s/h, but not in the quantities needed.

Telephone interviews with three equipment sale/leasing companies in the United States led to offers of sale of miniscule quantities of cars with readiness to lease larger numbers of cars; the full need can be met as mentioned above with advance notice.

The most recent telephone interview was with Mr. John Chambers, President of Southern Rail Leasing of Reno, Nevada. Mr Chambers substantiated what the consultant had obtained from the industry publications TRAINS and RAILWAY AGE in particular, and other railway equipment dealers regarding the tight supply of equipment. First, Mr. Chambers explained the context for the wood industry and movement of its goods by rail:

> "The industry produces low-rated commodities. The market shifts, fibre users shift. Forests are cut down and regenerate, so production shifts to follow the supply. This engenders challenges that are compounded by a new industry shipping demolition debris in wood chip cars with their high capacity and low density. This debris damages the cars, which are being ruined by this new commodity. There is now a shortage of wood chip cars, *which* should hold at least 7 or 8 thousand cubic feet of chips. This leaves the wood industry to adapt coal gondolas or even boxcars. The dimensions and cubic capacity are rarely adequate; loads are 20% below rated weight capacity.
>
> *"Big railroads are reluctant to add cars; their goal is to improve utilization (of the existing fleet). They are increasing freight rates, chasing traffic away. Cars are hence in short supply.*

As to the future Kinghorn line purchasing cars, he said:

> *"I would discourage them from buying cars: that is a 50 – year commitment. Markets change in cycles – in 50 years you might have a succession of different traffic and need several different kinds of cars. Really big railways can always reassign owned cars to another part of the system when demand fades on a segment of line. (For a short line) you would do better to price out leases on new cars, which can be exchanged with the lessor for other car types; a use can always be found for them somewhere else. Capital is thus freed up for investment in infrastructure and other systems. Before deciding whether to lease or purchase, do an analysis taking into account both the market and the operational environment.*

Mr. Chambers validated the monthly lease rates shown above, in the $380 - $400 bracket. He said he has five log flats coming off lease soon, and repeated the offer to make the required number of cars available on lease in a year.

In sum, a future short line would have to chase down the few cars available for sale and lease the rest. New customers might have to wait on equipment orders being placed and delivered. With enough research, equipment for start-up needs could be secured, and shippers already using CN freight cars might well be able to continue doing that. There are equipment pools such as TrailerTrain (TTX) and RailBox who could perhaps help ease the shortage. Finally, and this is critical, ***inclusion of the Kinghorn line in a larger entity such as Genesee & Wyoming, RailAmerica or les Chemins de fer du Québec could give access to a large pool of equipment, some of which could be assigned to the line under review.***

5.2 Rail Operation Costs

5.2.1 Overview

The consultants have approached operating costs from a number of angles to ensure that they were reflective of Northern Ontario realities. A major effort was also undertaken to get the financial statements of one or more short line operations, especially in Ontario and Canada to ensure that nothing was overlooked. Unfortunately, it would seem that given the level of competition and the level of private ownership in this market, such information was not forthcoming. Since profit margins are a combination of both revenue and operating costs, industry standards such as operating ratios for both Canada and the US have been used.

5.2.2 Operating Ratios

The consultants have focused on the Canadian short line average operating ratios available from the Railway Association of Canada (Strategic Infrastructure Investment Opportunities: Short Lines in Canada, May 2003) as a benchmark to follow, and matched these operating rations with those of larger Short Line Operators in North America such as Genesee & Wyoming, and RailAmerica. The majority of short lines in Canada do not do as well as these two large companies due to economies of scale but the difference is marginal. In fact, the Canadian operating ratios while experiencing around 84% average between 1997 and 2000, have been trending upward since then and are now closer to the 88% as of the latest figures in 2003. In comparison, Genesee & Wyoming operating ratios were 85.2% in 2003 and 83.5 in 2004. On the other hand, RailAmerica's operating ratio (which also operates in six Canadian provinces) was much higher at 89% in 2004.

Appendix E contains tables of operating ratios (all transportation sectors) for comparison.

5.2.3 Operating Costs

Operating costs in a short line operation are composed principally of labour and benefits expenses, equipment rental expenses (leasing of rolling stock), purchased services (sub-contracting maintenance work and other), diesel fuel, casualties and insurance, material costs, depreciation and amortization, and other operating costs such as overhead and administrative expenses.

These costs are usually shown as a percentage of revenue and they provide an analytical snapshot and trending over time. It has been the experience of the consultants that while there may be some variation between companies, as a whole these percentages are representative of a typical short-line operation and they were used to identify each cost element in the Pro-Forma statements. To further validate the larger costs such as labour as a percentage of revenue (approx. 35%), the consultants have also priced in details (only year 1) the potential labour costs required to run such an operation in light of the volume requirements identified (see Pro-Forma Statements - Appendix B).

5.2.4 Diesel Fuel

Diesel fuel has also been priced based on volumes of 1 to 2 million litres and local pricing as quoted by Shell Canada in Thunder Bay in early October 2005, and a PetroCanada dealer in late October 2005.

Given the present volatility in the price of diesel fuel, the consultants have further identified the impact of a price change on the bottom line. The projected impact for each one cent change in the price of diesel fuel (for rail) would be around $13,000 for one year under a most likely scenario, and up to $20,000 for each one cent change by year three given the estimated volumes under an optimistic scenario.

It is important to note that the industry standards being used show the cost of diesel fuel at around 8-10% of revenue (Genesee & Wyoming – North America Operations). While such percentage could be viewed as on the low side given the purchasing capacity of a larger company, operating efficiencies and more flexibility in a smaller operation could offset the higher diesel costs based on lower volumes (i.e. 1 million litres versus 5-10 million litres per year for a larger operation).

6 PRO FORMA STATEMENT

6.1 Overview

The Pro-Forma Statements represent the most likely volume scenario for year 1, with the optimistic scenario represented in year 3. This provides a benchmark (year 1) from which to extrapolate potential financial results based on potential volumes and industry operating standards.

These financial projections are obviously susceptible to influences and changes from a number of sources. The industry dynamics in Northern Ontario is fast changing, **but the consultants believe - based on the review of similar operations** (see Section 8, Short Line Successes) - that **a focused management team and innovative industry practices could make this a viable operation**. In fact there are many examples throughout the industry where a Short-line railroad experienced a major turnaround in few years going from a loss to a healthy operating ratio of 82% (as per the following example):

> RAILWAY AGE ANNOUNCES SMALL RAILROAD WINNERS[10]
>
> Railway Age magazine has named Exeter, Ca.-based San Joaquin Valley Railroad as Short Line Railroad of the Year and Hammond, Indiana-based Indiana Harbor Belt Railroad as Regional Railroad of the Year.
>
> This year¹s award winners personify the type of success smaller railroads can achieve, even when faced with economic hardships and uncertain outlooks, ² said Railway Age Publisher Robert P. DeMarco. The turnaround experienced by both carriers shows what can be done when basic railroading principles, like customer service, safety, and performance, become the building blocks of resurgence.

6.2 Potential Profitability and Start-up Costs

Given the volumes identified in the revenue section and an operating ratio that matches the industry average in Canada and North America for short-line railways, the operation could show a profit within the first couple of years of operation. In the Pro-Forma Statements each year is shown separately, and the most likely scenario is shown for year 1. However, many things could happen that would **push this level of activity to the second year and the optimistic scenario to the fourth year as well**. It is appropriate in these circumstances then to ensure that the operation would have sufficient funds to allow for a proper start-up (usually 6 months of operating expenses), and the ability to weather the ups and downs of the first couple of years given the risk factors identified below.

6.3 Risk Factors

The consultants have not gone into the level of detail that is more appropriate for a Business Plan; however, the greatest risks would be the loss of major shippers; the loss of potential revenue from other complementary projects such as the passenger train; high maintenance cost for the tracks and bridges; increases in the cost of diesel fuel; higher labour costs due to unionized employees; insurance costs going up due to risk on a track bed that has not been maintained; the sellers' market in equipment continuing into the future, and pushing the purchase cost of necessary equipment up; and others such as steel prices and the competition for freight cars from scrap merchants and demolition-debris shippers.

6.4 Fixed and Variable Costing

To ensure a proper analysis of breakeven points, the consultants have divided the operating costs between fixed and variable. However, it is evident from the cost structure that some costs do not lend themselves to a proper fit between the two. In fact some of the variable costs are part fixed and part variable such as in the case of labour (administration is considered part fixed and part variable, that is, it is scaled up or down with the level of activity in a step process and not in a straight line. The same can be said for maintenance and other labour costs). Given this limitation, it is still reasonable to assume that the operation will have to cover the fixed costs as identified in the Pro-

[10] See full article in section 8.6

Forma Statements even if there is no level of activity. In other words, the operation will have to have a level of revenue (or cash flow) sufficient to cover its fixed cost (insurance, property taxes, etc.), before the doors are even opened.

7 ECONOMIC ISSUES

7.1 Overview

The forest industry in Northwestern Ontario is undergoing economic challenges, with Norampac (in Nipigon and Red Rock) recently announcing the lay off of about 125-175 employees. Kimberly Clark in Terrace Bay had also announced a lay off of some 100+ not too long ago. This does not bode well for the short line operation (at least in the short term) because potential clients are downsizing. However, at the Northwestern Ontario Regional Conference (NWORC) held in Thunder Bay September 22nd to 23rd, a local economist forecasted that in the long run the industry should turn around due to the increasing demand for the product worldwide, including the USA. Right now the problem is the high Canadian Dollar, high cost of transportation and wood from the bush, and high cost of energy (hydro rates).

Support services required by the industry in relation to the operation of a short line railroad would also include intermediate level companies/agencies that would provide supplies, products, services, food and lodging, security services, training, etc to both industry and the short line operation.

An overview of current industry indicators may be found in appendix D.

On September 29th 2005, the Government of Ontario announced aid for the forestry sector, from which the following is extracted:

"The forest industry provides good jobs for northerners and supports the prosperity of the entire province, but the sector is facing some tough challenges, including the adjustment to a higher Canadian dollar," said Ontario Premier Dalton McGuinty. "Together with northerners, we will work to make forestry a viable sector. We're doing our part, and we're urging the federal government to honour its own commitment to come forward with tangible financial support."

"The Ontario government is committing $330 million over the next five years by:

- *Investing $150 million over the next three years through a Forest Sector Prosperity Fund to leverage new capital investments in a variety of areas*
- *Investing $28 million annually to maintain primary forest access roads to reduce delivered wood costs*
- *Investing $10 million annually by 2007/08 to enhance the Forest Resource Inventory to ensure the long-term sustainability of the wood supply*
- *Investing $1 million per year, beginning in 2006/07, in an Ontario Wood Promotion program to enhance value-added manufacturing.*

"Today's measures build on several initiatives announced in June, including a five-year, $350 million loan guarantee program. These measures respond to the many challenges facing the forestry industry, including changing global markets, increasing competition, escalating costs and a rising Canadian dollar.

"Supporting our province's forestry sector is part of our government's plan to build economic prosperity and responds to the report of the Forest Sector Competitiveness Council," said Ramsay. "By supporting the forest sector today, we are attracting new investment and helping the industry become globally-viable."

"The government of Ontario is working with the forest industry by supporting capital projects in areas such as electricity conservation and co-generation," said Minister of Energy Dwight Duncan. "This initiative complements the programs the Ontario Power Authority is developing to encourage more efficient, cost-effective energy use across the forest industry, and it reinforces this government's commitment to addressing the challenges the industry faces."

> *"The forest sector is one of the key economic engines of Ontario's economy. With annual sales of about $18 billion and exports of about $9 billion, the forest industry provides direct and indirect employment to over 200,000 people across the province. While many communities in the north depend on the industry, thousands of jobs in southern Ontario depend on companies that supply the industry or use its products.*

A report on the announcement in The Globe and Mail[11] on the same date noted, in part:

> *The industry has shed more than 3,400 jobs in the past three years…. An industry-led advisory council that Mr. Ramsay appointed in June said Ontario's forest sector was in a crisis, and it predicted a dozen mills are at risk of closing with the loss of 7,500 jobs.*
>
> *An oversupply of newsprint has left the industry struggling with rising costs and falling revenue. As well, the high Canadian dollar has reduced export profits, and wood fibre prices are soaring in Eastern Canada, as are energy prices in Ontario.*
>
> *The rising cost of gasoline, combined with the increasing distances between harvestable forests and plants, has increased the cost of delivering wood. The price per cubic metre for wood in Ontario is $55, compared with the average world cost of $35.*
>
> *Government sources say the total of the initiatives will add up to more than $500-million, "depending on how you do the math," but would give no details. Included will be a "prosperity fund" that will encourage companies to upgrade their plants. Some sources said they expected this to be worth about $150-million and will be targeted specifically at the pulp-and-paper sector.*
>
> *The initiative to reassume responsibility for road maintenance was a key recommendation of the minister's advisory council. The province handed the cost of building and maintaining logging roads to the industry a decade ago. But companies argue that these roads are vital to Ontario's tourism industry and that the province should take on some of the burden.*
>
> *Ottawa will have no role in today's announcement. Mr. Ramsay said earlier that he is counting on Prime Minister Paul Martin to follow through with a promise to participate in the forestry package. A spokesman for federal Industry Minister David Emerson said details of the federal plan are still being worked out and an announcement will be made "in the coming weeks."*

The consultants believe that the Province's announcement overlooked the rail sector. A golden opportunity to revitalize the rail sector, considering the massive problems faced by the trucking industry and in Northwestern Ontario in particulars should be exploited aggressively by the Municipality. The rationale for the consultants' view is explored in more detail in the next few sections.

7.2 Rail Transportation Benefits

The current rail demand in Greenstone and adjacent municipalities is limited to freight transportation, and that, with the proposed abandonment is under major threat. Predicting the long-term transportation needs of the region is difficult. It is not possible, and is not within the remit of the contract, to address all imaginable scenarios. Although current use of the Kinghorn Subdivision is narrowly restricted to freight, future regional needs *may* necessitate the use of it for passenger rail. Keeping the subdivision and ensuring maintenance assures substantial flexibility in addressing the changing needs in the region or adapting innovative transportation technologies.

Private autos and trucks presently dominate transportation in Greenstone and adjacent municipalities. This mode of transit relies on fossil fuels and requires a large expenditure of energy. As the national and international arena alters course in respect to oil production, crude oil cost, or federal gas subsidies, the current truck and auto dominated transportation system may prove too costly to sustain.

[11] "Ontario plans aid package for troubled forestry firms" The Globe and Mail, September 29, 2005 Page A10

As these changes occur, *a region lacking maintained rail corridors has limited transportation options, which in turn would potentially impact the region's long-term economic viability.*

7.3 Production and Manufacturing Benefits

Rail service and a maintained rail corridor offer many potential economic benefits to Greenstone. Apart from supporting existing clientele, rail service can be critical in attracting regional business investments. Also, maintaining rail service is an important issue in business retention or expansion and could potentially benefit the region's tourism industry.

Rail availability is often critical for developing a community's manufacturing base. Some industries and producers that rely on large quantities of bulk goods for their production process or industries that produce large bulk goods must have rail access to reduce shipping costs and remain competitive in their respective marketplace. These sectors could include automobile and other transportation equipment producers, chemical facilities, food producers utilizing large quantities of agricultural products, or industries moving bulk metal products. When deciding where to locate facilities, these *manufacturers will not consider locating where rail is not available*. If Greenstone and area were to permanently lose the availability of rail service - in this case the Kinghorn Subdivision - then attracting investment from these sectors would be significantly impaired.

The retention of existing businesses that use rail may not be possible if service is lost to the region. Interestingly, an example of this potential problem was identified in a 1995 rail feasibility study surveying potential rail users in the Grand Traverse region of Michigan. The study found the largest rail user in the region shipped four trains of material per week from October to May and one train of material per week throughout the remaining months of the year. If rail service were no longer available to this manufacturer, all of the material moved by rail would have to be redirected to truck carriers. As a result, transportation costs would increase and certain geographic markets in the nation could potentially be unavailable for their products. *In the end these factors might significantly impact the producer's operating costs and profit margins.* This example could be applied to all current rail users if rail services were lost in the region.

7.4 Tourism and Recreation Benefits

The economic impact of the tourism industry in Northwest Ontario is unquestionable. The impact of rail on the tourism industry of the region has not been fully explored. **The preservation of the Kinghorn subdivision would enhance the region's existing tourism industry and recreation opportunities**. As a previous study carried out by the consultants showed, the Kinghorn subdivision could support tourist trains. Also, preserving the corridor could potentially integrate tourist and recreational activities by providing a non-motorized transportation network throughout the region.

Tourism related passenger rail is a common enterprise in regions with thriving tourist industries. Countries such as the UK (particularly) and the US host scores of such railways contributing millions of pounds/dollars to the local economies. Tourist trains often connect important tourism activities, such as resorts, parks, and casinos. Train riders experience the unique opportunity to travel by rail, while indulging in the scenic landscape surrounding rail corridors. Well-planned tourist rail ventures can be very successful. A well documented example is the "Adirondack Scenic Railroad" established in the late 1990's in New York's Adirondack Mountains which had 62,000 riders its first year of operation and hosted more than 200,000 riders in its first three years. The governor of New York has responded to this success, *investing over eight million public dollars into preserving and improving the rail line.*

7.5 Preserved right-of-way equals Opportunity

The advantages provided by rail service and rail corridors provide ample evidence of the many benefits of preserving these features. Rail is the best method of moving bulk commodities. The Kinghorn Subdivision will help meet the future transportation needs of the region. Maintaining rail service can aid in economic development and strengthen the region's tourist industry. Rail corridors also provide potential non-motorized transportation and recreation routes, which could bring social and economic gains. All of these attributes share one common theme. **If**

the Kinghorn Subdivision is not preserved these opportunities will be severely if not permanently limited, leaving the region fewer options in meeting the economic and societal challenges of the future.

7.6 Transportation: Rail or Truck?

7.6.1 Overview

After serious declines in the 1970s - 1990s, the railway industry has been successful in regaining much of the market that it had lost to trucking. Many if not all the reasons are probably too arcane for the average observer to understand, or even bother with. However, what the railways have been doing is of singular significance to our energy-starved, ever-more-polluted, and economically challenged future. This subject is explored through the next few sections.

The on-road transportation industry is facing a difficult challenge. Fuel costs now account for 30% of operating costs, making it an increasingly uneconomical proposition. Furthermore, this industry is struggling to attract and retain workers. These difficulties make it more difficult to maintain a good working relationship between truckers and their clients. Finally, **the forest industry is sensitive to the greenhouse gas emissions. The industry's environmental performance is not only important as a corporate citizen; it is also a requirement from many of its clients. Therefore, the forest industry must seek alternative ways to transport its products**.[12]

7.6.2 Fuel Efficiency

Rail service holds a considerable economic advantage in moving many bulk goods, most notably for long distance shipment of bulk commodities. Shipping costs for bulk commodities on rail can be as little as 20% of the cost for the trucking industry per ton-mile. A study by the U.S. Department of Transportation found that trucks used more than four times the fuel needed by rail carriers for regional routes of less than 100 miles.[13]

> Railroads are three times more fuel-efficient than trucks. If just ten per cent of the freight moved by highway were diverted to rail, the nation could save as much as 200 million gallons of fuel each year. *U.S. Department of Transportation (DoT) and Association of American Railroads*[14]

Railways currently move 64% of all surface tonne-kilometres (while producing only 3% of greenhouse gas emissions - GHG) while trucks carry 36% of surface tonne-kilometres (*and* produce 22% of all GHG emissions)[15]. The **loss of rail transportation for bulk commodity producers can result in large transportation costs increases, severely impacting their competitiveness**.

Railroad fuel efficiency has increased by 72 percent since 1980. Then, a gallon of diesel fuel moved one ton of freight an average of 235 miles. In 2001, the same amount of fuel moved one ton of freight an average of 406 miles.[16]

7.6.3 Impacts of Fuel Prices on the Two Modes

Trucking will depend on oil for the foreseeable future.[17] The next best alternative fuel would be 56 per cent more expensive than using diesel at current prices.[18] This ratio could change if oil prices rise.

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12 Contract Reports CR-0224-4-NRCAN-1 and 2, "Intermodal Freight Efficiency", Forest Engineering Research Institute of Canada (FERIC), 2003-2005

13 Noted in a report by The Northwest Michigan Council of Governments for The Traverse City Area Chamber of Commerce, Transportation Committee, October 2002.

14 "Freight Rail Fact Book:, Chapter 2 – Societal Benefits

15 "The Environment – Our Track Record," film, Railway Association of Canada, September 2005.

16 ibid.

17 "Financial Situation in the Trucking Industry" February 2002

18 Cost comparison from report by Charles Rivers for Diesel Technology Forum

The Canadian Trucking Alliance, quoted in Today's Trucking, October 10, 2005 is no slouch in trying to battle the rising cost of diesel fuel:

> *"Diesel fuel is the second largest component of operating cost for a trucking company and recent escalations have motor carriers wondering how long before fuel becomes their largest cost component," says CEO of CTA, David Bradley.*
>
> *"It is imperative that trucking companies recoup these cost increases, or they won't be around for very long,"*
>
> *'No company can, or should be expected to, absorb those sorts of increases... Carriers who think they can are deluding themselves and shippers who think their carriers can had better think again if they want to sustain the service levels from the industry to which they have become accustomed."*

With the recent increases (and predicted further increases in the future) in fuel costs, **the cost per unit of cargo carried by truck will increase. While the same overall increases will also affect rail, two significant off-setting issues will tend to tilt to tend the balance even more to rail transportation: (a) huge bulk-buying power; (b) rails' 3:1 or greater fuel efficiency over trucking.**

7.6.4 Taxation

The Federal Government of Canada collects a considerable amount of revenues in the form of fuel taxes. Railways alone pay $170 million per year in fuel tax, yet they fully finance, build, improve, maintain and pay property tax on their own networks. Road users also pay fuel tax, yet the important difference is that they do not pay for the construction, improvement or maintenance of the network. As well, a big truck inflicts an estimated 34,000 times as much wear and tear on roads and bridges as an automobile. In the U.S., proposals are in place to reduce fuel taxes and free-up scarce resources for critical investment. The Canadian federal fuel tax for railways is four cents per litre, compared to 1.89 cents (Can.) for U.S. railroads, which makes Canadian products less competitive in continental markets. Another logical approach would be to reimburse, through strategic investment, the fuel taxes paid by the different modes. A key component of such a proposal would be the introduction of user fees, as the CTAR Panel recommended, for road users.[19]

7.6.5 Insurance in the Trucking Industry

In 2000, companies insuring long-haul trucking operations were losing $0.40 per the dollar of revenue, or $0.27 loss after $0.13 investment income. This compares to a net profit of $0.06 per dollar revenue in general insurance. There is a lack of experience in underwriting long-haul trucking. Claims are often big, and in U.S. dollars.[20]

7.6.6 Trucking Costs Hit Municipality's Budgets

Freight rail has a very beneficial impact on roads and highways by removing substantial truck traffic from the road network. One rail boxcar can move approximately the same amount of material as three trucks and a single freight train can equal approximately 500 trucks in terms of cargo. Removing freight traffic would increase truck traffic, traffic congestion, and wear and tear on the highway system.

A recent study conducted in Québec demonstrates the impact of trucks on the highway network and the environment. It has arrived at interesting and relevant conclusions, reporting that **large trucks in Québec cover approximately 50 percent of the cost of their contribution to highway and environmental degradation. In dollar terms, this equates to an annual subsidy per truck in the range of $10,000. Furthermore, the report**

19 "Short Line and Regional Railways – Response to the Canada Transportation Act Review Panel's Report", Railway Association of Canada November 9th 2001 pp 5-6

20 Mark Ram, President and CEO of Markel Insurance Company of Canada, remarks to OTA annual convention (November, 2000) as reported in Motor Truck, December, 2000

highlighted the fact that the majority of this subsidy is paid by municipal governments.[21]

7.6.7 Pollution

> According to the American Society of Mechanical Engineers, if ten per cent of intercity freight now moving by highway were shifted to rail, 2.5 million fewer tons of carbon dioxide would be emitted into the air annually.[22]

For a more pertinent Canadian case, see also section 7.5.9, FERIC feasibility study for Domtar Forest Products in Val d'Or, Quebec.

7.6.8 Safety and Health Issues

Rail's dedication to safety is demonstrated by its active promotion of programs that enhance rail safety. Railroads have a lower employee injury rate than trucks, barges and airlines, and lower than most other major industry groups, including agriculture, construction and manufacturing.

> The volume of HAZMAT moving by rail has more than doubled since 1980, with approximately 1.7 million carloads now moving each year. In 2000, though, only 35 rail accidents resulted in a release of hazardous materials, and 99.996 per cent of rail hazmat shipments reached their final destination without a release caused by an accident.[23]

7.6.9 A Lesson We Can Learn From?

Transporting wood by train is not new, however, on distances less than 1,000 km, transportation by truck was traditionally preferred, since it was simpler to implement and less costly. Today, with the cost of fuel counting for an increasingly important part of the operating expenses of a truck as well as for road maintenance machinery, along with new physical inputs, communication, and logging camp organization, the train is again becoming competitive.

The Forest Engineering Research Institute of Canada (FERIC), with a significant grant from Natural Resources Canada and several forestry companies, has been conducting a multi-year study/pilot project at two sites – in North-Western Québec and along the North Shore of the St-Lawrence.[24] The pilot projects compare in detail the costs of intermodal transportation amongst and between three modes: barge, train and truck.

FERIC carried out a feasibility study for Domtar Forest Products in Val d'Or, Quebec. This study showed that significant cost savings could be experienced if transportation was shifted from trucks to rail. Benefits do not only come from the reduced transportation costs, but also from reduced road maintenance costs and elimination of inventories due to spring load restrictions. In addition to the cost savings identified, a significant reduction in greenhouse gas emission would be achieved. The implementation of transportation by rail in that operation alone would reduce the total emissions by 48,000 tons of CO_2 per year. (See Appendix J for a full description of this pilot project).

The proposed shift in transport modes has been approved and the infrastructures are already under construction. A new siding and unloading facilities had to be installed. Actual rail transportation started in 2004.

The similarity between the study, in particular in the Val d'Or region, and Greenstone is striking - forest industry products being the main product transported over a distance not much shorter than the Kinghorn.

The following table is a cost comparison between rail and road transportation in the Val d'Or region.

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21 "Short Line and Regional Railways – Response to the Canada Transportation Act Review Panel's Report", Railway Association of Canada November 9th 2001 pp 5-6

22 "Freight Rail Fact Book:, Chapter 2 – Societal Benefits

23 "Freight Rail Fact Book:, Chapter 2 – Societal Benefits

24 Contract Reports CR-0224-4-NRCAN-1 and 2, "Intermodal Freight Efficiency", Forest Engineering Research Institute of Canada (FERIC), 2003-2005

INFRASTRUCTURE TYPE	TRAIN ($/m^3)	Truck ($/m^3)
Restoration of chippings	---	$0.82
Road maintenance	$0.28	$1.76
Layout of siding	$0.08	---
Total infrastructure cost	*$0.36*	*$2.58*
TRANSPORTATION MODE		
Transportation by truck	$3.22	$13.90
Transport by train	$10.15	---
Load	---	$0.65
Unload	$1.74	$1.75
Cost of forest siding operation	$0.09	---
Total transportation cost	*$15.20*	*$16.30*
Total infrastructure + transportation cost	**$15.56**	**$18.88**

Notwithstanding a requirement to install and maintain a forest rail siding, with timber being transported by truck a short(er) distance to the siding, the cost per cubic metre is $3.32 cheaper by rail.

See also, Appendix F, J and K)

7.6.10 Conclusion

It is difficult not to conclude from the foregoing that rail-based transportation has a potentially bright future, but if it is to be realized, foresight, determination, leadership and good marketing needs to come to the fore.

7.7 Economic Impact analysis

7.7.1 Overview

The consultants were mandated to conduct an economic impact analysis into the direct and indirect economic dislocation that will occur with the loss of the Kinghorn Sub. In the sections above, the consultants have provided not only a top-level view of the strengths and weaknesses of the area, particularly as it applies to economic (primary) and tourism (secondary) opportunities, and the potential impact of the closure of the line on the local and regional economy, but a macro-economic perspective. In the section below, a more focused and specific impact will be outlined.

7.7.2 Comparison of financial and economic impact analyses

An economic impact analysis measures the change in economic activity (hopefully additional spending and jobs) from a mooted project. While the Pro-Forma financial statements have provided a financial impact analysis applicable directly to the viability of the Kinghorn line, it will form the basis of determining the impact of such investment on the overall economy of the region, including direct and indirect costs, and induced multiplier effects.

As stated above, financial and economic impact analyses are interrelated. A financial impact analysis is narrower in scope than is an economic impact analysis. A financial impact analysis estimates the increase in capital and annual operating costs and the increase in annual revenues arising from a project. The net result (impact) indicates whether or not the project will be a net generator of revenue (from the perspective of a potential investor for example). This usually determines if the project is viable or not.

An economic impact analysis is more wide ranging than the financial impact of a project and it extends to include the impact on local government and importantly, on the economy. It measures the net increase in economic activity

(additional spending and jobs) in the local community from a project or event, and may provide additional information to decision makers who may otherwise view the project from the narrower financial perspective.

7.7.3 Why do an EIA (Economic Impact Analysis)?

To a large extent this question has been answered above. However, additional reasons are as follows:

- To indicate the potential economic/financial benefits of the project – who wins and who loses?
- To indicate whether or not the project should proceed.
- More importantly in a political environment, to protect against unwarranted and unsubstantiated public criticism and thus, provide political benefits.
- To provide information that may be required for budgetary purposes, especially where there is a cost of undertaking the project.

The key steps (elements) of the decision matrix for the EIA (Economic Impact Analysis) are:

Step 1: Determine Objectives

Step 2: Measuring Costs

Step 3: Measuring Benefits

Step 4: Measuring the Multiplier Effect

Step 5: Sensitivity Analysis

Step 6: The Decision Rule

7.7.3.1 Measuring costs

Since the objectives have already been defined above, the second step is to measure the costs. This would include the value of resources displaced from other projects (opportunity costs). In the case of the Kinghorn Line, the analysis can be approached in two ways. One is to look at the cost and impact of abandoning the line, and the second, equally important, is to look at it from a benefit perspective. That is, given that the financial evaluation shows the potential profitability of the line, what would be the benefits accruing to the region if the line was kept open.

In using the cost approach, it is evident from other data in this report that a number of complementary projects may be relying on a convenient and efficient method of transportation given the present cost of diesel fuel. The **opportunity cost** of this project not going forward may be substantial but difficult to measure at this time. As well, **capital costs** of improving/upgrading the line are also difficult to calculate given the uncertainty about the need for such improvements without a detailed technical review.

7.7.3.2 Measuring Benefits

The benefits are measured by the net increase in economic activity. They are easier to measure, since the consultants have provided a Pro-Forma financial statement based on industry standard costing. For a business such as the Kinghorn line remaining open and/or expanding, the **direct benefits** would be measured by the net increase in the number of new jobs in the capital improvements phase (difficult to measure at this time), and the ongoing operational phase over the years (18 positions - see appendix C), times the annual compensation paid to those employees (approx. $2M per year including benefits). As well, if the business were to purchase materials and supplies from other businesses in the local community, this would be also included because it increases local economic activity. This latter is estimated as the total general operating expenses of $5M, less the labour costs of $2M, or $3M.

This direct benefit to the local economy will need to be reduced by the expenditures that will be expended outside of the local supply chain, as in the case of leasing, casualty insurance, diesel fuel (local suppliers get only a percentage of the total price paid), as well as some purchased services (contracting out). It is estimated that around $1.5M (of half) of the $3M operating expenditures will be spent outside the region, leaving approximately **$3.5M in direct benefits**.

Employment Effects

In addition to those employed directly by the operation, it should be noted that secondary employment effects would also arise from the expanded level of annual economic activity. Provincial data indicates that one full-time job equates to $75,000 in economic activity.

7.7.3.3 Measuring the Multiplier Effect

The multiplier referred to in this report is called an expenditure multiplier as distinct from an employment multiplier. It is an expenditure multiplier because it measures the extent to which an initial expenditure or project in a community leads to additional induced and indirect expenditures in that community or region. Indirect effects occur when those who supply the local businesses that benefit from direct effects increase their purchases of production material and services from other businesses and these businesses, in turn, increase their purchase (second and third round effects).

Multiplier values for most industries are around 2.5 with the highest value applying to national impacts and the lowest value applying to local areas. For example, national multiplies tend to be around 3.5; provincial multipliers in the range of 2.0 to 2.5; local impacts in the range of 1.5 to 2.0[25] Lower multipliers are generally used for smaller areas because more of the indirect and induced activity "leaks out" of the local area (dollars spent in a regional centre like Thunder Bay). For the purposes of this report the **multiplier used will be 1.5** given the rural, smaller and less urbanized area of Greenstone, with a higher propensity for leakage.

7.7.3.4 Sensitivity Analysis

Since the results of an Economic Impact Analysis are based on estimates of benefits, costs and multipliers, it is important that a sensitivity analysis be completed. In the following table, the annual benefits will be matched to the Investment cost with differing multipliers. A Net Present Value calculation of the net cash flows (Net Income plus depreciation) for the first 5 years of operation as per Pro-Forma financial statements are also provided to highlight the time value of the investment.

Direct benefits: $3.5M

- Labour expenditures including benefits for 18 positions = $2M per year
- Operating expenditures (supplies and purchased services) = $1.5M

Indirect Benefits: $1.65M

- Impact on local employment (1 FTE for every $75,000 of new spending) = $3.5M/$75k = 47 FTE
- Increase in income of indirect and induced workers (47 FTE x average employment income of 35,185 in Greenstone – from Stats Canada 2001 Census) = $1.65M

Sub-Total: $5.15M

Multiplier 1.5

Total impact on the community/area = $7.72 million

Multiplier of 2.0 = **$10.3 million total impact on the community/area**

[25] Ontario Economic Development Network: The Theory and Real world Practice of Economic Impact Analysis

7.7.3.5 Decision Rule

The decision rule says that the project should be undertaken if the local community is better off as a result of its implementation. Using the same rule, it should not be undertaken if the community is worse off. Since the above benefits have not been matched to costs, the decision has to be taken in the context of the comments that t**he above estimated benefit to the community/area/region can be compared to the possible investment that Greenstone would be willing to make to keep the line opened.**

Since there is a substantial level of uncertainty in projecting future benefits, it needs to be understood that the above results are estimates that can vary. For example, the level of spending for supplies and purchased services from local suppliers versus outside suppliers can vary. A project of this magnitude can have additional positive spin-off effects in complementary projects in the region, thereby allowing local suppliers to expand, introduce more products, and capture more of the local purchasing dollar.

As well, the level of labour expenditures may vary from those assumed in the Pro-Forma statements (used 35% of revenue as per industry standards) to reflect a tighter cost of operation until the short-line has secured the necessary volumes. This could delay full operational expenditures for 1 to 2 years.

7.7.3.6 Net Present Value Calculation

This calculation is presented to emphasize the time value of money, and extend the operational scenarios to the first five years of operation. The net cash flows from operations are estimated as the operating income excluding depreciation (a non-cash item) but before interest expenses which are based on the capital and financing structure of the investor.

Given the above parameters, the net cash flows are as follows:

	Year 1	Year 2	Year 3	Year 4	Year 5
General Operating Income	$247,303	260,793	393,390	412,659	506,929
Depreciation	338,819	355,760	513,972	539,670	565,369
Cash Flow from Operation	586,122	616,553	907,362	952,329	1,072,298

Calculation of present value of benefits (net cash flows) discounted at 10% over 5 years = $2,746,453

The cash flows below are discounted by a factor that takes into account the time value of money. That is, a dollar tomorrow is worth less than a dollar today. The benefits are projected to begin the year after the project is completed (line fully operational). The first year factor is therefore 1+ rate of interest (10% in this case) to the power of 2 +1 power for each additional year)

Year 1: 586,122/(1+.10)² or 586,122/1.21 = 484,398
Year 2: 616,553/1.33 = 463,225
Year 3: 907,362/1.46 = 619,740
Year 4: 952,329/1.63 = 581,043
Year 5: 1,072,298/1.79 = 598,047

Over 10 years assuming year 5 remains constant over years 6-10 = $5,010,758

Year 6 = 1,072,298/1.969 = 544,314
Year 7 = 1,072,298/2.167 = 494,831
Year 8 = 1,072,298/2.384 = 449,789
Year 9 = 1,072,298/2.622 = 408,899
Year 10= 1,072,298/2.926 = 366,472

Evidently, the present value amount would change with a different discount rate (some companies use their cost of capital while others may want to use an expected rate of return) and if the cash flows were extended to year 15 or 20 (higher if cash flows were positive). However, because of the higher factor, future years' cash flows would have a lower present value the further one goes into the future.

For the purposes of this report, the above numbers could be used as an estimated range for the potential cost (value) of investment into the project on the assumption that it would generate the above cash flows. Obviously if net cash flows (operating income before depreciation) were to change lower so would the Net Present Value. The consultants have identified some key variables such as diesel fuel, insurance, unionized labour, loss of a major shipper, etc. that would have a serious impact on such cash flows.

8 Short Line Successes

8.1 Overview

The rail industry in Canada has undergone a remarkable rebirth since deregulation began in 1987. Prior to 1987, the industry was stagnating. Investment and productivity was declining and government assistance through subsidies was commonplace. 1996 is also an important year in Canadian rail deregulation as it marked the streamlining of the network restructuring process. Since the Canada Transportation Act of 1996, transfers to short lines outranked discontinuances by five to one, and enabled the creation of 35 new short lines in five years, compared to 11 in the prior 10 years. During the past 10 years, short lines have preserved and improved rail service on 9,750 kilometres of track that otherwise would have been discontinued by the major railways.

Short line railway employees do a wider variety of tasks than those of larger railways. The enterprises are flexible in identifying and responding to customer needs and local business opportunities. As a result, short lines have lower labour costs and less equipment expenses than the major railways.

There are significant economies in organizing crew rotations, infrastructure and equipment maintenance and long-haul train operations with a larger organization. The new short lines have been able to retain rail traffic and also grow their business, to the benefit of industries that represent the economic backbone of the Canadian economy and local communities across the country.

- Québec-Gatineau Railway[26] established auto transfer and lumber reload facilities in Quebec City. Added specialized freight cars to fleet to meet shipper demand. Expanded rail access, improved transit times to U.S. Northeast and South.

- The Chemin de Fer de Charlevoix[27] reload center at Clermont transfers approximately 2,100 carloads of lumber annually. The center provides storage and transfer facilities for 200 million board feet of lumber annually that is produced by three sawmills in the area. The centre offers a full range of client services, including dispatch of truck traffic direct to customers in Quebec and Ontario, and customs documentation for U.S. bound traffic.

- Chemin de fer de la Matapédia et du Golfe[28] has begun transporting 1,200 carloads of logs a year from Baie Comeau to a sawmill near Mont Joli. Previously, the logs were trucked. The short line's service package included construction of a reload facility and rail siding at Price.

- Huron Central Railway[29] transports Algoma Steel traffic to a new Hamilton storage and transfer facility, including product logistics management.

[26] "Short Line and Regional Railways – Response to the Canada Transportation Act Review Panel's Report", Railway Association of Canada November 9th 2001 pp 5-6
[27] ibid.
[28] ibid.
[29] ibid.

- Central Manitoba Railway granted running rights through Winnipeg to link former CN Pine Falls and Carmen subdivisions and created a viable operation. New Saskferco reload facility to be located on that short line.

See also, Appendix G.

8.2 Port of Tillamook Bay Railroad

The consultants have examined a number of short lines in Canada, the USA and the United Kingdom with a view to finding illustrative examples of what can be done with a railway line that the major Class I operator no longer has a use for. We looked, in particular, for a line serving the woods industry. While there are a number of candidate lines, some are not well documented, some are too new to have accumulated conclusive examples of success or otherwise, and not all are on the scale of the Kinghorn subdivision with its 195 miles of secondary mainline-type track. Fortuitously TRAINS Magazine published an article[30] on the Tillamook Bay line this summer, and we found that the 96-mile line starting on a large body of water across wooded rough country to connections onward in the interior of Oregon was a good equivalent.

The Tillamook line was for a long time a Southern Pacific branch, but SP wanted to unload it in part because of problems with washouts, and sold it to the Port of Tillamook in 1989. "Today, the … Port of Tillamook Bay Railroad is busier than it ever has been in its existence as a short line. Tonnage trains loaded with finished lumber for the national housing industry tackle 3% grades, burrow through 10 tunnels and cross 82 bridges …". This is a tough and expensive environment, yet according to TRAINS the line survives and even prospers (modestly). (The line) "… also offers seasonal tourist trains powered by diesels, geared steam (locos) and an RDC (Budd car)".

The railway "rosters a fleet of 15 SD9 diesel locomotives as its primary power … (and) keeps two GP 9s running, mostly for freights working along the coast and also on passenger and work trains. The Port … solidified its position with the venerable units by purchasing a group of retired SD 9s from BNSF in 2002. … 'We've found nothing else that really works …' says Chief Mechanical Officer Dick Jones. … The railroad runs a pair of freight trains six days a week – one to handle switching … and another to take the loads to interchange with the Portland and Western Railroad at Banks".

When the Port took over operations, there were only 454 carloads a year, down from 7,000. Now the railway "helps support 1,000 jobs". The purchase of the line, with three SD9 locomotives, cost 2.8 million US dollars in 1988. That is a capital investment of 2,800 dollars for each job protected. The purchase occurred when a buyer was considering a mill site at the port's industrial park and another company wanted the railway to haul rock. The forests in the area were being opened for cutting, which created a logging boom. The state's new lottery helped pay for the buy-out.

Today the line has five shippers west of Banks, where the Port switches Banks Lumber Co. Finished lumber moves from three mills. The line also handles inbound feed for the farm members of the Creamery Association. A new shipper, Georgia-Pacific began moving raw logs from Tillamook to mills in Coos Bay, Ore. in late 2004.

Financial support has come from a variety of sources, and the Port itself has invested 30 million USD in the line. "'The public monies ploughed into the railroad have reaped an almost dollar-for-dollar return …' economic development and railroad officials say". Investment continues as the line has upgraded from 75 and 80-pound rail and gone from 160,000 lb cars to 260,000 lb cars. …"That was a real challenge in itself, keeping up with the tonnage. And all that time, the traffic was increasing too. It just never ends", says former Road master Gary Beachy. The Port's excellent web site shows 36 railway employees in management and a wide variety of trades in both the dominant freight department and the smaller passenger operation, and in shops and maintenance of way.

In conclusion, the Tillamook Bay railway has a similar scale to that of the Kinghorn subdivision, and while it is only half as long it makes up for that in grades, curves, bridges and tunnels! Not only has it protected a thousand jobs, it has helped to create new industry in its region. The Port of Tillamook has considered it worth investing 30 million

[30] "The Port of Tillamook Bay lives to haul lumber, logs and livestock across one of the toughest mountain railroads in the Pacific Northwest" - Judy Moore and Brian Jennison, TRAINS Magazine, August 2005.

dollars in the line, and this has in turn generated the other investments and economic expansion in this remote area. Even in a difficult environment a short line like the Tillamook Bay can operate successfully. While we have not been able to find out how many carloads it is carrying, two trains a day means substantial volume is originating on the line. While the Port is likely not expecting big short-term profits from the line, the economic spin-off effects and social benefits make up for the possibly marginal bottom line. One must look at the wider picture, and it is an attractive one.

8.3 Athabaska Northern Rail [31]

Alberta-Pacific Forest Industries Inc. (Alpac) signed a 10-year contract (renegotiated every year) with Athabaska Northern Rail, which began in early 2004 to haul logs by train from their forest licenses in northern Alberta to their mill in Boyle.

Alpac plans to transport 500 000 m³ of wood annually by train, once they have smoothed out all of the kinks in the present system. This is equivalent of 10 000 truck trips per year. Over the average distance of 250 km, these truck trips add up to roughly 8 100 tonnes of CO_2 produced per year, while the train transport will produce around 3000 t, a reduction of 5 100 t of CO_2 per year. However, even once the system is running smoothly, they still plan to retain some truck transport so as to maintain flexibility.

They load the trains from two satellite yards in close proximity to their wood supply, one in Fort McMurray and the other in Windell. Each yard has a capacity for roughly 150 000 m³. A third yard is planned to go into operation within the next two years. The advantages for Alpac to have large-capacity satellite yards are:

- The wood dries while it is stored in the yard and they pay their transport by the tonne;
- They reduce the inventory in their mill from 900,000 m³ to 650,000 m³;
- The inventory cost in the satellite yard is 15 $/m³ compared to a cost of 35 $/m³ for the mill yard.

The wagons used have a capacity of 100 tons of tree length logs and their objective is to ship 16 to 20 wagons per day to the mill.

One of the key reasons for Alpac going to rail transport was the opportunity to deal with a short-line operator like Athabaska. Because they have fewer overheads and a less-restrictive union contract than the large rail companies, short lines can be more flexible and more aggressive in providing reliable service at a lower cost. Another important point for Alpac was that they only have to deal with one rail company. Rail costs are significantly higher when shipping must be done with two rail companies due to transfer costs between the companies. They also feel that they are treated as an important client by Athabaska and thus treated with priority, which is not always the case with the bigger rail companies.

Another key to getting low rates is if the schedule can be organized so as to maximize the number of cars per trip. For example, two trips of 60 cars are less costly than 10 trips of 12 cars.

As with Domtar, Alpac has found that they have significantly reduced their road maintenance costs with a rail transport system.

8.4 Barrie-Collingwood Railway (BCRY)

BCRY provides rail car transportation and switching service for customers of the City of Barrie and the Town of Collingwood. The BCRY, Cando's first registered short-line operation, began operations on January 26, 1998.

The City of Barrie and the Town of Collingwood purchased the rail property and trackage between them. Short line operator Cando operates and maintains a total of 63 miles of railway trackage for the two towns, and provides all of the necessary equipment, under an Operating Agreement with a local community development association. The

[31] Contract Report CR-0224-4-NRCAN-2, “Intermodal Freight Efficiency”, Forest Engineering Research Institute of Canada (FERIC), 2005

BCRY services a rapidly growing industrial area and commodities shipped including grain and lumber products, clays, chemicals and industrial products.

BCRY interchanges traffic daily with CP Rail, a Class 1 Railway connected directly to the North American Rail network. BCRY and CP staff will work with local industries to evaluate railway-shipping options to reduce freight costs and improve the bottom line. BCRY staff is interested and prepared to work with potential clients/shippers to evaluate the benefits of railway shipments to support their business.

The BCRY mandate is to provide rail service to all industries in and around Barrie and Collingwood. BCRY can either arrange for the construction of a rail siding directly into the customer's facility or alternatively provide trans-loading service from their team tracks in Barrie or Utopia and arrange truck delivery to the customer's operation.

BCRY currently provides daily rail service to shippers in the Barrie-Collingwood areas. BCRY operates two locomotives and employs five full-time and several part-time staff from an office and locomotive building at Utopia. BCRY provides rail service to customers at Utopia daily, to customers in Barrie on Monday, Wednesday and Friday and to customers in the Collingwood area on Tuesday and Thursday.

To improve the safety and operating efficiencies of the rail operations, the BCRY Partnership has completed a major track refurbishment program that has allowed an increase in trackage weight capacities and speed on key segments of the BCRY line. This refurbishment program ensures the long-term viability of direct rail service to industries located in the Barrie and Collingwood areas.

8.5 Ottawa Central Railway (OCR)

Since business start-up in October 1999, Ottawa Central Railway revitalized an ailing industry and has grown traffic from 8,964 carloads to 21,000 carloads annually – a 134 per cent increase.

Ottawa Central, Rideau Bulk and Canadian Pacific Railway opened a new warehousing and distribution centre in 2001 that helps relieve highway congestion in the Ottawa area.

Eight hundred carloads of forest products now move by rail from Espanola to OCR's Walkley Yard in Ottawa. The traffic is transferred there to truck for local delivery to Domtar's E.B. Eddy plant in Hull (Gatineau), and takes 2,000 truckloads of freight a year off Highway 17.

Products handled by the Ottawa Central Railway and Rideau Bulk for customers in eastern Ontario and western Quebec include a variety of dry goods, wood and lumber products, steel, construction equipment and computers. Ottawa Central Railway also introduced a cost-effective rail service to metals recycler Baker Metals that turned truck traffic into 700 freight carloads of new business moving from Ottawa to Ivaco Rolling Mills in L'Orignal, about 80 kilometres to the east.

CN's acquisition of Illinois Central, and its links with Mexican regional railway TFM, also streamlined traffic flows between Canada and Mexico. As a result, 100 carloads of telephone poles, produced by IBP's plant in the Hull (Gatineau) area, are now transferred annually from truck to rail at Ottawa Central's reload facility in Walkley Yard, reducing long-haul road and border congestion.

See also, Appendix I.

8.6 San Joaquin Valley Railroad

Railway Age magazine in 2003[32] named Exeter, Ca.-based San Joaquin Valley Railroad as Short Line Railroad of the Year for very good reasons:

> *"This year's award winners personify the type of success smaller railroads can achieve, even when faced with economic hardships and uncertain outlooks," said Railway Age Publisher Robert P. DeMarco. "The*

[32] Railway Age Announces Small Railroad Winners, http://www.aslrra.org/whats_in_the_news/views_and_news/results.cfm

turnaround experienced by both carriers shows what can be done when basic railroading principles, like customer service, safety, and performance, become the building blocks of resurgence."

"The San Joaquin Valley Railroad saw the close of 2001 with an uncertain future due to a financial statement of over a half million dollars in the red, seven reportable personal injuries, over 200 miles of our 321-mile railroad in excepted track status, almost 100 miles of track being submitted for abandonment, and customers taking their business elsewhere at an alarming rate due to a lack of customer responsiveness," said Littlefield. RailAmerica acquired the San Joaquin Valley Railroad and put in place a new management team and approach and turned the railroad around 180 degrees and into one of the biggest surprises of the RailAmerica network.

"We focused heavily on building back our customer base through consistent and quality service, resulting in 9% carload revenue growth over 2001," says Littlefield. "We trimmed our costs substantially and then controlled our costs. With the increase in carloads, we established an 82% operating ratio, beating a plan of 97%. Not only were we able to increase revenue from in-the-red to in-the-black, but we operated the entire year without a single reportable personal injury." As of late April, the San Joaquin Valley Railroad had compiled 562 injury-free days. It also finished 2002 with only one reportable derailment and thus far this year has not had any reportable derailments.

9 Prospective Partnerships

9.1 Confederation College

The rail industry across North America suffers from a lack of trained employees. This is due mainly to numerous retirements in a short period. The problem is the tip of the iceberg - analysis shows that retirement rates from the railways could go as high as 70% in Canada over the next 10 years.

The railway industry through the Railway Association of Canada and the Institute of Railway Technology (IRT) is trying to address the problem. It put in place training programs that are offered in specific locations. While the training program targets conductor and signal communication specialists, the potential for expansion is always being reviewed.

Why IRT?

- Top quality pre-employment training programs:
  - Developed for and by companies to suit their needs
  - Leads to excellent careers in the rail industry
  - Programs:
    (All courses are offered in English only with the exception of Collège Gérald-Godin)
- Is an innovative training institute:
  - Curricula developed by the IRT
  - Delivered by community colleges
  - Based on 'occupational profiles' of the specific skills and knowledge required for a particular career in rail
- Ensures high quality, consistent training across Canada to meet the needs of industry:
  - Audits training programs delivered by training organizations using a formal accreditation process

- Successful programs will be IRT accredited, on behalf of the Railway Association of Canada.
- The 60 some RAC member railways will consider these graduates because they are the best prepared for their chosen career in rail anywhere across Canada.

- Graduates receive the best possible training for the job:
  - Consults extensively with industry
  - Makes sure students learn the skills currently in demand
  - Programs meet industry standards recognized by all railways in Canada.

While no training programs have yet been designed for mechanical and electrical disciplines, the IRT mentioned that it is looking at the needs of the industry; if the interest from their members were there they would design training programs for all crafts typically offered through the Community College.

With the potential of a passenger Tourist Train, as well as the addition of a short-line operation, training would be required. From mechanical inspector to electrician, track maintenance, engineer, conductor and much more all will need to be trained to the standards required by short-line operation and/or passenger train.

Being located in the centre of Canada there is potential of a National training program to be offered in the area. A strategic partnership could be created between a short-line operator, Confederation College or another school board as well as the Railway Association of Canada through The Institute of Railway Technology.

Such a partnership would bring more revenue and/or subsidy to the short-line operation. Some organizations including Confederation College, Bombardier and the Tourist Train group of consultants have manifested their interest in pushing this hands-on training process a step further.

In response to our approach, **Confederation College has gone on record that it is interested in participating as a training partner in the Kinghorn Subdivision Initiative.** Donald Bernosky of Confederation told us, in part:

> *"There is an opportunity to link existing programming as a common core element for training in motive power systems. The specialization components could be developed or there are potential partnership opportunities with other colleges who offer this type of training.*
>
> *"I would suspect you would be applying for funding to support this initiative. We would be willing to assist in the application and consider being a partner in this venture.*
>
> *"I would be prepared to discuss this initiative with you and provide any support that I can.*

At this juncture we have advised Mr. Bernosky that we will be contacting him when we have the final results of this study.

The next step would be to ask various organizations for a commitment for the short-line governing board to enter into formal discussions with Confederation College, the Railway Association of Canada, etc.

9.2 Thunder Bay Port Authority

Refer to observations in section 4.3.3

10 ACQUISITION/ORGANIZATION

10.1 Background

Bulletin #1 of the (Iain Angus and Associates) 'Kinghorn Sub Project' dated 23rd November 2004 recommends that two parallel strategies in this regard be considered:

> *i. The retention of all or part of the Kinghorn Sub by CN as a result of the development of a plan that proves the economic advantage to CN of retaining the line;*
>
> *ii. The retention of all or part of the Kinghorn Sub under ownership other than CN.*

10.2 Acquisition Options

While the present study excludes costing of acquiring the railway line from Canadian National Railways, subsequent to contract award, the consultants were asked by the Municipality and its Project Manager to consider the option of leasing.

In order to evaluate the pertinence of the lease option, it is necessary to inventory other possible vehicles for acquisition of the line.

10.2.1 Outright Purchase.

The classic method is *outright purchase.*

The Canada Transportation Act requires that CN, in its "advertisement of availability of railway line for continued rail operations (Part III, 143)**:**

> (2) The advertisement must include a description of the railway line and how it or the operating interest is to be transferred, whether by sale, lease or otherwise, and an outline of the steps that must be taken before the operation of the line may be discontinued, including
>
> (*a*) A statement that the advertisement is directed to persons interested in buying, leasing or otherwise acquiring the railway line, or the railway company's operating interest in it, for the purpose of continuing railway operations;

It is widely assumed that Provinces or municipalities are the first to whom CN must offer a proposed abandonment for purchase, but this is not the case as evidenced by 143 (2) (a). Note the "… to persons interested in buying, leasing or otherwise acquiring the railway line, or the railway company's operating interest in it…" The private sector or even an individual could purchase it. The most likely purchasers would be a "short line empire" or a regional railway, but a consortium of local or other private interests is another possible buyer. The cost is likely to be in the millions dollars, so the financial strength of the buyer would have to be substantial.

10.2.2 Donation

Another option is for the railway to *give* the line to the Municipality or municipalities interested, which could issue a tax receipt for the value of the subdivision, in doing so producing for CN an attractive tax break. Our understanding is that for the 20-mile Section of the Maniwaki Sub donated by CPR to the city of Hull and the municipalities of Chelsea and La Pêche the value was in the range of two million dollars.

The line could perhaps be donated to a charitable foundation set up by the municipalities and other interested parties, and a precedent exists in the form of the (Vancouver) Island Corridor Foundation, which has been given income-tax donation receipt status by Revenue Canada.

The municipality could then go to tender for a private operator. In the case of the Hull Chelsea Wakefield (a tourist operation) the line is municipally owned, hence no taxes are due. The HCW, the operator, pays rental to the municipality as part of the deal, so a form of leasing is in place. Unlike a lease by the municipality from the mainline railway (CNR) it produces a positive revenue flow for the three municipalities the line crosses. It is true that they forego taxes, but they view the lease payments as a form of in-lieu of tax.

It is important to note that Municipal ownership of the line also paves the way for federal grants for infrastructure upgrades (see section 10.5 - Post-Acquisition Funding Possibilities (Federal/Provincial**).**

10.2.3 Lease

An interested party can propose a lease. The Québec-Gatineau Railway short-line operation from Hull to Québec City is leased from CPR by Genesee & Wyoming, the parent company. Many other railways have been leased by other railways, sometimes for very long periods such as 99 years, or longer.

This was discussed between the consultants and CN in Montréal. Further information is contained within section 9.3 (Timing – Challenges).

N.B. There is a well-publicized case[33] of CN providing $2.4 million to upgrade a connecting short line in the southern US. In return, CN has obtained long-term traffic guarantee for a long distance movement from one of the shippers on the short line. We have not identified any similar cases in Canada, however it is reasonable to presume that the long-haul railways would have some incentive to ensure the viability of their feeder lines, especially where shippers have competitive alternatives. Unfortunately for the short lines, the competitive alternative is sometimes highway transportation to a reload centre on the long-haul railway. On balance, however, recent experience seems to indicate a greater incidence of traffic shift from the road to short lines rather than from short lines to the road.

10.2.4 Ontario Northland Railway

The consultants were able to reach an ONR official (Director of Freight Marketing), who was pleased to give us an insight into the Ontario Northland Railway's current status and a perspective on ONR and the Kinghorn Subdivision's future. The consultants described the work of Iain Angus and the subcontractors in the analysis of the Kinghorn line for the Municipality of Greenstone. The official asked right away, with no prompting, if the promoters or consultants were envisaging a possible ONR acquisition of the line as a short line subsidiary. To this he was informed that it is an option the consultants were asked to explore. He advanced the opinion that given the distance (481 miles via CNR) from the ONR to Longlac, that was unlikely. "It may be difficult to set up a short line and operate it because of distance" he added. He was unable to recall any regular traffic flows that ran over both lines, (so mutual interest from that source would be absent). He did opine that a number of short line corporations would likely bid to operate the line, however.

The main area for cooperation might be the use of the well-equipped shops at North Bay. In this facility, 115 bi-level GO commuter train cars are currently being stripped down and completely rehabilitated. Contract work at these shops has also been done for Inco, Ottawa Valley Railway (locomotives), VIA Rail Canada (rebuild passenger cars), and CNR.

Another area might be car supply, ONR "occasionally leases out log flat cars", the consultants were informed. ONR owns no wood chip cars, but moves wood chips in open topped boxcars towards Wisconsin, and has moved wood chips from Cochrane towards Thorold.

The above operations are self-supporting, but ONR has a "non-commercial" sector, given over to the movement of passengers, such as the Northlander service, the Polar Bear Express train, etc. We suggested that the ONR might be

[33] "Sustaining Capital Requirements for the Short Line Railway Industry", Research conducted for the Canada Transportation Act Review, prepared by Research and Traffic Group, February 2001

prepared to offer an advisory service to the Municipality, and our informant did not discount this, nor did he confirm it.

Before calling the ONR, we had, on October 2nd, 2005 identified certain criteria for analysing a Kinghorn takeover option by the ONR. These are listed below, and a short *comment* follows each criterion:

- through traffic: *little or none;*
- connectivity, possible physical connection: *none, distance 400 mi. +*
- synergies, long term mutual interest: *limited*;
- economies of scale, personnel: *some;*
- workshops: *high potential*
- labour costs of ONR collective agreement: *a potential negative unless Kinghorn operated separately as a short line*
- Other potential interested parties: *ONR contact above predicted numerous bidders*
- Comparison with community rail: *less local control, more expertise but distant*
- Comparison with short line: *again less local control, communications at a distance, less commitment from staff possible if owners seen as distant "government" corporation.*
- Comparison with short line empire: *ONR would have fewer financial reserves, it has had financial problems of its own, workshops with contracts directed by Ontario (GO) is the money-spinner for ONR - this has limits in scale and in time. On the other hand ONR could be a conduit for money from Queen's Park (?).*

In summary, the criteria once applied lead to several negative and a few positive results for an ONR ownership of the Kinghorn line. **The ONR would be interested in providing certain services, such as repairs in its workshops and possibly leasing of some freight cars, but the prospects for a takeover (unless this is imposed from above) do not seem bright seen from the viewpoint of the Ontario Northland Railway executive consulted. It seems reasonable to assume this is a representative position within the railway, since it comes from the department head responsible for freight marketing, and freight would be the main traffic of a Kinghorn Subdivision short line.**

The negative prospect was also garnered independently from an industry association executive.

10.2.5 Return on Investment

A return on investment (ROI) calculation is based on the premise that there would be a potential investor prepared to invest a given sum that would be matched against the expected profits (net operating income) from the operation, in determining the viability of such investment.

Another scenario would look at a mix of private/public partnerships, with the ROI taking more of a general evaluative approach (i.e. economic impact analysis for the region). This part was covered in more details in section 7.6.

Given the range of possible options as identified below, the ROI can take many forms:

1. Involve the Government of Ontario through a direct acquisition of the line as a subsidiary, for example, through the ONR.
2. Acquire the line through a donation to the municipality (tax write-off for CN).

3. Direct purchase by the Municipality.
4. Negotiate with CN to lease it to the Municipality as a Short-Line operator.
5. Issue a RFP for an existing large short-line operation (e.g. Genesee & Wyoming, RailAmerica) to acquire the subdivision.

In other words, what is the invested capital against which future cash flows can be compared to (discounted to the present through a Net present Value calculation at a given discount rate)? It is outside the consultants' current mandate to look at the cost of acquiring or leasing the line, including maintenance facilities.

The investment then is considered to be only the cost of acquiring and/or leasing rolling stock, maintaining and operating the rolling stock, and track maintenance. The latter two, being part of operating income, have already been included in the cost of operation (see Pro-Forma statements). Excluded from the calculation is also the cost of upgrading the line from its existing somewhat parlous state in certain sections. Such cost has been estimated by at least one reputable US study at between $300-500 thousand per mile. However, this was (a) based on upgrading the infrastructure to safely carry 286,000 pound cars at a reasonable speed, and (b) based on the fact that money for such projects are freely available from State and Federal governments in the US. A more realistic range of $50-$100 thousand per mile (a unit cost – i.e. *not* the entire length – only where it is needed) would be applicable in Canada. Some sections will require more and some less. This can only be determined by professionally qualified railway engineers, and would be carried out at a later stage, and it is not part of this report.

10.2.6 Return on Capital

In the case where a large short-line operation would be interested in the acquisition of the Kinghorn line, the ROI calculation would be more focused on, and in line with, industry practices that look at return on capital as a better tool to gauge investments.

Return on capital is employed as the ratio of operating income to average capital employed, where the latter is frequently defined as the sum of long-term debt (including the current portion) plus shareholders' equity. Return on capital employed has the advantage that the numerator, operating income, reflects the underlying income-generating capability of the business itself and is not affected by how the firm chooses to finance its operations through debt or equity.

10.2.7 Return on Equity

Return on equity is the most basic accounting measure of profitability, because it is the one most directly related to shareholder value creation, the main goal of the firm. Using return on equity, as the basis of comparison between firms or industries is difficult, however, because it is affected by how the firm chooses to finance its operations, which can vary greatly, and also because return on equity reflects the numerous special and extraordinary items that can affect a firm's net income, as opposed to its operating income.

Since the capital investment will be a combination of many factors including negotiations, it is extremely difficult to match operating income to such as investment in this report without the benefit of additional information.

10.2.8 Discounted Cash Flow

Another option, and one that may help evaluate a possible value for the operation, is to calculate the Net Present Value of a stream of cash flows or earning from operation. As explained above, the operating income (before depreciation and interest expenses) is usually the equivalent of net cash flows. In cases where the cost of capital of the potential investor is known, this could be used as the discount rate to bring the cash flows (revenue less operating expenses = operating income) to a present value to be matched against the possible investment, or to also determine what price a company would be willing to pay given the projected profits.

10.2.9 Projected Profits

Using industry standard costing, based on the projected volumes, the operation could be making a profit from year one based on an operating ratio of around 90%. Interest expenses would be added to that and would be based on the mix of financing required for the investment. For the purposes of this report, the industry average represented by a large short-line operation such as Genesee & Wyoming was used (G&W owns 3 short-line operations in Canada, and such operations provide 15 percent of the revenue from the North American operations).

As the Pro-Forma Statements indicate, the profits for this operation can be negatively affected by the increasing cost of diesel fuel. The consultants have been able to obtain local prices for the expected volumes of traffic based on standard consumptions for the industry. The price being used is based on a current quote by the PetroCanada dealership in Thunder Bay at $.75 per litre ($.85 quoted less 10 cents per litre average for national pricing based on the estimated volumes of over 1 million litres per year). This number is higher than the September 2005 quote of $ .778 by the Thunder Bay Shell dealer, and reflects the volatility of the diesel fuel market which has been going up while gasoline prices have been moving down literally as we surveyed prices and developed this report.

It is important to note that given the substantial impact of increasing diesel fuel prices over time, on the bottom line, the impact would be even more devastating on the trucking industry, due to the demonstrated superior fuel efficiencies of rail-borne versus truck-borne transportation.

The projected impact for each 1 cent change in the price of diesel fuel (for rail) at the volumes identified for the Kinghorn would be around $13,000 for year one under a most likely scenario, and up to $20,000 per cent by year three given the estimated volumes under a optimistic scenario.

The following table identifies the key Items in the Pro-Forma Income Statement

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Volumes (carloads)	16,269	17,082	26,316	27,632	29,013
Revenue	$ 5,646,987	$ 5,929,337	$ 8,566,193	$ 8,994,503	$ 9,422,812
Operating Expenses (Incl. incr. fuel costs)	$ 5,060,865	$ 5,312,783	$ 7,658,832	$ 8,042,173	$ 8,350,515
Net Operating Income	**$ 586,122**	**$ 616,554**	**$ 907,361**	**$ 952,330**	**$ 1,072,970**
Depreciation	$ 338,819	$ 355,760	$ 513,972	$ 539,972	$ 565,369
Interest Expenses	$ 208,939	$ 219,385	$ 316,949	$ 332,797	$ 348,644
Net Income	**$ 38,364**	**$ 41,409**	**$ 76,440**	**$ 79,561**	**$ 158,957**

As can be observed from the table above, the line could be profitable given the projected volumes and industry rates per carload. Usually, a Net Present Value calculation would exclude the depreciation expenses from the equation, which would increase the net cash flow. If the investor were a private company, there would be an after-tax impact of Capital Cost Allowance to be included in the formula, as well as working capital as part of the initial investment (purchase price). Since this information is not available to the consultants, the full calculation for ROI is not feasible or doable at this time.

The consultants suggest that the information provided in this report should be sufficient to attract a *knowledgeable* investor who would then be in a position to use its internal cost of capital and financial structure (along many other criteria, e.g. an Ontario Northland Railway takeover, applicability for Provincial and/or Federal grants, etc.) to determine the feasibility and operational fit of such investment.

10.3 Timing – A Challenge

10.3.1 Canadian National Railways

On October 17th 2005, the consultants met in Montréal with a CN official and discussed a number of issues including the lease option.

It all came down to CN's bottom-line - they were putting more money in to the line than they were taking out so "… it has to go." The official added:

> *"We're open… if a big shipper came to us, we would be willing to re-run the numbers, but… let's face it they had only one big shipper and they're basically gone."*

(As an aside, the consultant was to ignite one spark - 'thinking of the bigger picture' rather than just the quarterly financial statements so beloved of North American stock market analysts. We described the FERIC pilot projects on Québec's north shore, and centered on Val D'Or. When the official was showed the bottom line – the savings of $\$3.32/m^3$ and savings of shipping by rail versus by truck in a *real project* and not just some consultant's 'guestimate' he sat up and took notice. He welcomed our offer to send him the reports covering the fiscal years 2003/4 and 2004/5 (done).

A summary of CN's abandonment milestones were given to us:

- December 15 2005: open to bids
- February 15 2006: receipt of offers
- March 1, 2006: gone.

Finally, the official noted:

> "We are in no big rush, but neither are we going to be dragging our heels."

10.3.2 Information of Strategic Importance for Greenstone

As has already been noted, the processes for the abandonment of railways is prescribed at some length in the Canada Transportation Act. The extant version was given Royal Assent in 1996. In the year 2000, as required by the Act, the Canada Transportation Act Review Panel was struck by then Transport Minister Collenette. The Panel traveled extensively, held many meetings and received hundreds of submissions on what turned out to be a volatile subject.

Rail and rail freight issues are examined extensively in Chapters 4 and 5 of the Panel's findings.[34] The Panel submitted its report to Government in June 2001. For a variety of reasons, no legislative action has taken place, thus the process is still governed by the 1996 Act.

The range of issues facing a prospective buyer, particularly a municipality, is encapsulated in "Developing Short Line Rail – Support for our Communities", by the Saskatchewan Association of Rural Municipalities (SARM), which can be found in full in Appendix M. A summary of the problems that that are likely to be encountered was identified by SARM thus:

a. Timelines

1. Unlike railway employees, local elected government officials are not employed on a full-time basis. Generally, municipal councils meet once per month. This means there will usually be only one official council meeting during the time frame. Councils will not have time to evaluate all of their options at one meeting. Ideally, councils would have a chance to attend an initial meeting to discuss the situation, take time to gather more information, and then make their final decision at a subsequent meeting.

[34] http://www.reviewcta-examenltc.gc.ca/english/pages/final/tablee.htm

2. Municipalities do not have adequate financial resources to buy a line without incurring a relatively large debt. Given that there is a financial risk, and that the purchase of a rail line is a new endeavor for any council, many municipal councils would prefer to consult with ratepayers before purchasing a line. This takes time.

3. One month is not enough time to complete a detailed business plan for the purchase and operation of a railway.

4. One month is not enough time to investigate financing sources and ensure that financing is in place.

5. One month is not enough time to commission and complete a thorough environmental review of the line.

Timelines regulating the abandonment process must be extended, and made more flexible. Railways must be required to make key personnel available during periods of negotiation.

b. Confidentiality agreements

Groups negotiating with CN or CP must be able to share information (in confidence) with other short line groups and affected local governments.

c. Revenue Sharing

Groups negotiating to purchase rail lines from main line carriers are caught in a Catch-22 situation. CN and CP ask to see a business plan before they will negotiate; it is impossible to develop a business plan before the amount of revenue that the main line carrier will share with the company is negotiated.

CN and CP have much more negotiating power than community groups interested in purchasing a line. There is an unfair balance of information and power.

A standard method of determining revenue sharing must be developed and included in the CTA.

The consultants recommend that, should the Municipality of Greenstone decide to embark on a procurement process that it:

a. Recognize that 'time is of the essence' and move quickly;
b. Engage pro-actively with CN from the start;
c. Engage the services of an experienced negotiator who has extensive railway experience as soon as is fiscally possible;
d. Engage in the appropriate communications at the Provincial and Federal levels, again, from the start.

10.4 Valuation

Regardless of the method chosen, there comes the question of valuation. CN no longer has to advise interested parties of the net salvage value of the line, but it should be possible to cost this based on other recent comparable purchases as well as informed estimates of the value of the property, track and structures. Additionally, should prospective purchasers encounter problems in agreeing a price with CN, the Canada Transportation Act requires, Part III 144. (3.1):

The Agency may, on application by a party to a negotiation, determine the net salvage value of the railway line and may, if it is of the opinion that the railway company has removed any of the infrastructure associated with the line in order to reduce traffic on the line, deduct from the net salvage value the amount that the Agency determines is the cost of replacing the removed infrastructure. The party who made the

application shall reimburse the Agency its costs associated with the application.

10.5 Post-Acquisition Funding Possibilities (Federal/Provincial)

10.5.1 Overview

Canada, unlike the US, the UK, and Europe has no cohesive policy on rail transportation funding, and from a freight perspective, given the lack of success in updating the 1996 CTA it is sadly 'everyone for himself'. Having said that, governments have provided some capital funding in one way or another. There is municipal participation in a dozen short lines across Canada. These tended to ones that commercial short line operators did not see as viable long-term investments. Thus municipalities-sometimes in conjunction with affected shippers - have invested in the infrastructure as a means of protecting rail service and have contracted out the actual operation of the line to short line companies.[35]

Quebec has an ongoing assistance program for rail transport. The province will provide grants of up half of the cost (to a maximum of $5,600 per km) to assist with rehabilitation of track and structures. This program is open to short lines not owned by a long-haul carrier and whose business is at least 75 percent for hire operations. The province will also provide grants of up to one-third of the cost of construction of reload centres, intermodal facilities or new industrial track.[36] There are other instances of various levels of government providing funding for some specific short line projects or to assist in their establishment.

10.5.2 Québec Infrastructure Program

Simply put, the agreement between the federal and Québec governments covers the construction, improvement or renovation of transportation infrastructure and systems. Municipalities, urban and inter-municipal transportation corporations, and short line railways are eligible for funding under this component. The eligible infrastructure includes:

1. Line rehabilitation (80%)
   - Lines operated by short line railways
   - Where required to ensure safe operations at speeds acceptable for profitable operations
   - Track, structures, construction of sidings

2. Intermodal Infrastructure (20%)
   - 75% reduction in property taxes

The intent is to maintain the existing rail network; revitalize transportation by rail and ensure the emergence of intermodal transport; and reduce costs to government from expensive road rehabilitation

The approved budget to date consists of 19 million dollars over a four-year period.

Eight Short lines have qualified for funding to date.

10.5.3 Nova Scotia

In 2005 Cape Breton and Central Nova Scotia Railway Limited applied for abandonment of the line running from St. Peter's Junction to Sydney. Following discussions with the Government of Nova Scotia the railway will continue to operate the railway line thanks to a $10-million agreement. The agreement provides up to $2 million per year over five years to cover operating losses and capital/maintenance expenditures incurred by the St. Peter's Junction-to-Sydney section of the company's rail line.

35 "Sustaining Capital Requirements for the Short Line Railway Industry", Research conducted for the Canada Transportation Act Review, prepared by Research and Traffic Group, February 2001

36 ibid.

In a government media release[37], on September 22 2005, Premier John Hamm said:

> *"We are strengthening our economic future by investing in this important Cape Breton transportation infrastructure. This investment will support the hard-working men and women of Cape Breton who use the rail line to run successful businesses."*
>
> *Energy Minister Cecil Clarke, on behalf of Economic Development Minister Ernest Fage said "The agreement preserves an important shipping line, and is built on potential new markets that would make the line sustainable, especially in the mineral-resource sector."*
>
> *"We are very optimistic about new customers and will be exploring these opportunities energetically through a concentrated marketing effort," said Peter Touesnard, assistant general manager of the railway.*

10.5.4 Federal Government

A number of programs are available and should be explored**, in particular the third and fourth in the following:**

1. Canada Strategic Infrastructure Fund ($2 billion)
   Intent: To fund large strategic projects in Canada. Targeted areas are water and sewer, tourism, highways and railways. To date no rail funding has been approved.

2. Border Infrastructure Fund ($600 million)
   Intent: To improve infrastructure at major border crossings. Selected rail projects have been identified.

3. Infrastructure Canada Program ($2 billion)
   Intent: To finance typically smaller scale municipal infrastructure over the next five years (the Québec agreement described in section 8.3.2 is an example of what has been achieved already).

4. Climate Change Fund ($1.7 Billion)
   Intent: Targeted at infrastructure projects that reduce Canada's GHG emissions. Details and criteria are to be determined.

10.6 Organization

The short line will require a simple, near horizontal organizational structure with no rigid barriers between crafts and multi-tasking where possible. For example, most short-line managers are ready to help with marketing, take over from a foreman absent for illness, and do sales and marketing. Conductors help sell the freight service to shippers along the line, and so on. Hence, setting up departments and separate functional cells is antipathetic to short line culture, and creates rigidity and incurs lost opportunities and costs.

Organizational structure typical of short lines has a manager, to whom the following report directly; a few office staff, operating personnel, maintenance of way foreman, shop lead hand or foreman. All these, and employees working for lead hand or foremen are given general job descriptions with multi-tasking written in. ALL function as salespersons, in synergy with the work done by a marketing professional.

11 RECOMMENDATIONS

The consultants have analyzed the critical factors facing the Kinghorn Sub. In the context of the impact it would have on the municipality of Greenstone and surrounding region. As it can be observed by other short line success stories, the abandonment of the line by CN can provide tremendous opportunities for the region, especially when viewed from the synergetic results it could provide to the complementary projects going on or being planned for in Northwestern Ontario.

[37] http://www.gov.ns.ca/news/details.asp?id=20050922005

It is also important to note, that while the Pro-Forma financial statements show the potential for a viable operation, ultimately it will be the combination of the players that come to the table (private/public partnership), organizational structure, financial structure of investment, political will, and the determination to succeed that will make the difference between success or failure.

Our research has looked at the risk inherent in this type of operation especially in light of the recent volatility in the price of diesel fuel. Such outside pressures, however, also offer an insight into the changing economic dynamics of this region, demonstrating that the impact on the economy due to an over reliance on tracking industry, cannot be taken lightly. The missed opportunities of not having a second choice can be just as damaging.

Potential Effects of Short line Railroad Abandonment

The following list is a summary of the critical areas that would be impacted by the loss of the Kinghorn line. While the consultants have reviewed and analyzed them throughout the report, they are provided below as a base from which to establish the needed recommendations.

1. Lower Commodities Prices Received by local and regional Industries
2. Higher Transportation Costs and Lower Profits for Rail Shippers
3. Loss of Market Options for Shippers
4. Lost Economic Development Opportunities for Regional Communities
5. Loss of Local Tax Base Needed for Basic Government Services
6. Potential Increases in Highway Accidents Due to Increased Truck Traffic
7. Increased Road Damage Costs on Municipal Roads and Provincial Highways

The items below are conclusions collected from each section, and further support the recommendations.

(4.3.1 - Bio-Fuel): The consultants were not in a position to fully explore the potential of this, or possible use of construction waste and/or hog fuel, so our findings are preliminary. A full Business Case would be required to analyze and arrive at solid conclusions.

(4.3.2 - Mining): Studies by and for the Canadian mining industry and reported to Transport Canada have highlighted the importance of the rail transport for their industry.

(4.3.3 - Port Authority): In the view of the Consultants, the positive results resulting from the FERIC truck-barge pilot project on the Québec North Shore should be examined in a business case study for their applicability to the Thunder Bay/Greenstone situation.

(5.1.2 - Interview with Southern Rail Leasing): inclusion of the Kinghorn line in a larger entity such as Genesee & Wyoming, RailAmerica or les Chemins de fer du Québec could give access to a large pool of equipment, some of which could be assigned to the line under review.

(6.1 - Organization): but the consultants believe - based on the review of similar operations (see Section 7, Short Line Successes) - that a focused management team and innovative industry practices could make this a viable operation.

(6.2 – Potential Profitability and start-up costs): many things could happen that would push this level of activity to the second year and the optimistic scenario to the fourth year as well (high level of risk).

(7.1 – Overview): The consultants believe that the Province's September 29th 2005 announcement overlooked the rail sector. A golden opportunity to revitalize the rail sector, considering the massive problems faced by the trucking industry and in Northwestern Ontario in particulars should be exploited aggressively by the Municipality.

(7.3 and 7.4 – Tourism, Recreation, Opportunity): The preservation of the Kinghorn subdivision would enhance the region's existing tourism industry and recreation opportunities. If the Kinghorn Subdivision is not preserved these opportunities will be severely if not permanently limited, leaving the region fewer options in meeting the economic and societal challenges of the future.

(7.5 Truck or rail): the forest industry is sensitive to the greenhouse gas emissions. The industry's environmental performance is not only important as a corporate citizen; it is also a requirement from many of its clients. Therefore, the forest industry must seek alternative ways to transport its products

(7.5.2 – Fuel Efficiency): loss of rail transportation for bulk commodity producers can result in large transportation costs increases, severely impacting their competitiveness.

(7.5.3 – Fuel Price Impacts): the cost per unit of cargo carried by truck will increase. While the same overall increases will also affect rail, two significant off-setting issues will tend to tilt the balance even more to rail transportation: (a) huge bulk-buying power; (b) rails' 3:1 or greater fuel efficiency over trucking.

(7.5.6 – Municipal Budgets): large trucks in Québec cover approximately 50 percent of the cost of their contribution to highway and environmental degradation. In dollar terms, this equates to an annual subsidy per truck in the range of $10,000. Furthermore, the report highlighted the fact that the majority of this subsidy is paid by municipal governments

(7.6.3.5 – Decision Rule): the above estimated benefit to the community/area/region can be compared to the possible investment that Greenstone would be willing to make to keep the line opened.

(9.1 – Confederation College): Confederation has said it is interested in participating as a training partner in the Kinghorn Subdivision Initiative.

(10.2.2 – Donation of line): It is important to note that Municipal ownership of the line also paves the way for federal grants for infrastructure upgrades

(10.2.4 – ONR): The ONR would be interested in providing certain services, such as repairs in its workshops and possibly leasing of some freight cars, but the prospects for a takeover (unless this is imposed from above) do not seem bright seen from the viewpoint of the Ontario Northland Railway executive consulted. It seems reasonable to assume this is a representative position within the railway, since it comes from the department head responsible for freight marketing, and freight would be the main traffic of a Kinghorn Subdivision short line.

Strategic Recommendations

The consultants recommend that, should the Municipality of Greenstone decide to embark on a procurement process that it:

(a) Recognize that 'time is of the essence' and move quickly
(b) Engage pro-actively with CN from the start
(c) Engage the services of an experienced negotiator who has extensive railway experience as soon as is fiscally possible
(d) Engage in the appropriate communications at the Provincial and Federal levels, again, from the start.
(e) Explore obtaining funds from Infrastructure Canada Program and the Climate Change fund.

11.1 Top Priority (Immediate action)

1. The Municipality should determine its preferred strategy and have a reserve strategy in case the first one meets insurmountable difficulties;

2. Obtain support from neighbouring municipalities and senior levels of government, at the same time inform the population and gather its feedback and hopefully support for the acquisition or other option;

3. Hire a expert professional railway engineer to determine the value of the line and necessary rehabilitation costs;

4. Signify interest to CN rapidly and begin negotiations towards the preferred acquisition or other option.

11.2 High Priority (Near-term Action)

1. Prepare a business plan if the municipally-owned or community railway model is selected;

2. Take concrete steps to interest short-line railway operators including large short line corporations in the Kinghorn subdivision if it is decided to confide the operation or ownership and operation to such a private sector operator;

3. Apply for and obtain federal and provincial funding for investment in the line.

11.3 Lower Priority (Action within months)

1. Stimulate or take the lead in creating partnerships with various transport and shipping interests;

2. Work with community college on creation of training scheme;

3. Carry out studies to prove out innovative projects such as intermodal terminals and movements.