Public Report

Due Diligence Report
Montreal, Maine & Atlantic Railway

Prepared For:

Maine Department of Transportation
16 State House Station
Augusta, ME 04333

February 11, 2010

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Executive Summary

Introduction and Project History

The Montreal, Maine & Atlantic Railroad (MMA) runs along the former Bangor & Aroostook Rail Corridor along Interstate-95 and is considered one of the most important north/south logistical links in this region of Northern Maine. In order to compete in the global marketplace, the State of Maine has developed a Rail and Port Investment Plan which targets the transportation system in Maine, focused on helping its manufacturing sector be more competitive, reducing maintenance needs on its highways, and increasing transportation and mobility options. The link between rail and ports has served the State of Maine well with shippers located along the MMA line utilizing rail as a mode of transportation to and from the deep water Port of Searsport. Rail service is vital to the continued efforts of the state to create opportunities and advance development within Northern Maine.

MMA is a Class II railroad, part of a railroad system established in 1891. Today, the MMA owns and operates 745 route miles of track in Maine and Canada. Per MMA, due to marginal traffic on roughly 233 miles of track and subdivisions running between mile marker 109 in Millinocket and mile marker 260 in Madawaska, and branch lines to Presque Isle, Fort Fairfield, Limestone and the Houlton subdivisions, MMA filed a Notice of Intent to Discontinue Service and Abandon certain lines of MMA located in Penobscot and Aroostook Counties, Maine with the Surface Transportation Board (STB) on February 4, 2010. This Notice of Intent outlines MMA's intention to file an abandonment application on or about February 24, 2010.

MMA has stated that this segment of track is losing money for the railroad and is not economical for the private organization to continue to operate and survive. MMA states that the portion of the railroad considered for abandonment has experienced a decrease in traffic of 35 - 40 % since 2006 due to a marked decline in demand for forest products. The recession has played a large part in this declined traffic during the last 2 years.

Consequently, throughout the last several years, service has gradually decreased over these lines as traffic volumes have gone down. During this same time, shippers have invested well over 200 million into their own facilities to be well positioned to increase production as the economy recovers. Additionally, the State of Maine granted several million dollars to MMA in order to maintain and rehabilitate the lines serving shippers in the state.

The State of Maine, shippers and communities affected by the rail service on this line have voiced their opposition to MMA's desire to abandon this line, and together, they have acted to preserve their rail access and service. The Maine Department of

Transportation (MaineDOT) has retained the services of rail attorney, Eric Hocky, and transportation consulting firm, Railroad Industries Incorporated (RII), to investigate its options and the processes for restoring service to full capacity and preserving its rail service. In order to protect the rail service in light of the actions of MMA in this case, preliminary negotiations with MMA have taken place. The State will ultimately need to file a petition with the STB opposing the anticipated abandonment filing by MMA on February 24, 2010.

In November 2009, a preliminary desktop analysis of the MMA line was performed. This analysis reviewed facility information, financials, traffic and carload information, schedules and present operations of MMA using information gathered through communications with MMA and MaineDOT. This initial analysis determined that the traffic on the portions of the line to be abandoned could be enough for a profitable operation with a strict operating plan and sustained traffic levels. Therefore, Phase II of this study included collecting primary data from actual stakeholders, examining the operational options for the portion of the line to be abandoned and developing a more detailed feasibility analysis for evaluation and negotiations.

This report presents the research, analysis and findings of the study commissioned by MaineDOT. The study includes an analysis of the rail assets included in the portion to be abandoned, a traffic analysis and operational feasibility analysis, an examination of public benefits for preserving service and options for moving forward. The report findings will be used as the basis for negotiations with MMA, and may be used in support of any petition to the STB.

Summary of Findings

The Market Analysis revealed that there is significant traffic still moving on this line regardless of the economic decline over the last several years. Most shippers still have substantial traffic, expect traffic to increase, would ship more by rail if service were more consistent and most all rely on rail for economical transportation of their products.

The operational analysis further revealed that operation of the line without debt service should be a profitable operation for MMA. The analysis also showed that a nominally profitable operation could be run by a third party operator as long as current traffic does not decline further and a large debt obligation was not required. With the increases in traffic expected by shippers, an even more profitable operation could be realized.

A Net Liquidation Value was provided by MMA for evaluation purposes. MMA was not available to allow an inspection of the line before this report was produced. In addition, MMA's NLV includes 30.25 miles of track not located on the track charts or any other documents. Until this can be resolved, RII concluded the NLV figure for acquisition negotiations is $18 - $21 million.

The State will likely need to lead the cause and shoulder the burden for acquisition. There are multiple funding options available, including two federal programs slated specifically for rail projects. In addition, RII believes that there is interest from shippers and potential third party operators to help fund the costs of rehabilitation. Although an inspection of the track will be required to substantiate this, the MMA has stated that there is $19 million in deferred maintenance. Once those figures are validated, a formal financing package can be developed.

RII has identified several third party operators who take an interest in projects like this. This operation will require someone with the knowledge and determination to actively market the line and develop new business and traffic, as well as have the ability to modify operations to suit needs and maintain customer service, negotiate with other parties for equitable rates and service, and to invest in this operation based on its own potential and their plans for developing it. This is a unique type of operator, and those identified should be contacted soon to begin developing their terms, requirements and what they can bring to the table for Maine.

The lines planned for abandonment have been analyzed as a system. One of the keys to making this a successful operation will be to maximize the competitiveness of the rates and service. RII has recommended that Maine DOT attempt to negotiate access to the station called St. Leonard, southeast of Madawaska, in order to interchange directly with Canadian National Railroad. This connection will reduce the through rates and transit times for the shipments and give the new operator access to the entire rail network. MMA will either need to agree to this through sale, lease or trackage rights, or will need to enter a formal agreement regarding service commitments and competitive rates. RII has also recommended requiring direct access to Brownville Junction to eliminate an unnecessary interchange with MMA for traffic moving easterly. This system rationalization will ensure a smooth operation.

This report also examines the environmental impacts of abandoning the line. Environmental impacts could total over $6 million annually in new highway maintenance costs and fuel consumption due to 36,000 truckloads per year added to the highway system. This also adds significantly to the particulate and carbon dioxide emissions and to highway safety concerns.

Economic impacts for abandoning the line range from lost businesses, jobs and tax revenues to decreasing the ability to attract new industries to the area and losing the corridors for future development of industry, utilities and transit operations. This particular rail corridor is located in an economically distressed area, and most of the shippers on this line rely on rail service to keep transportation costs low enough to remain competitive in their own markets. Additional industries were identified that have been considering locating to the area and would require rail service; these include

biofuels, engineered wood products and wind turbine equipment. These opportunities and the attractiveness of the area for many other industries in the future would be lost without the rail access in this corridor. Although traffic is down due to the worldwide economic environment, most indicators, including the industries currently located on the line to be abandoned, expect the economy, business and traffic to begin recovering within the next 12-18 months. Without protecting this infrastructure now, this area, as well as the entire state of Maine, will lose a valuable asset and one of its best resources for a strong position for economic recovery.

Market Analysis

The most important factor in determining whether the line can be operated feasibly or not is to determine the traffic actually moving and expected to move on the line. Although carload counts were provided by MMA, the preliminary analysis of this traffic performed in November 2009 indicated that there was substantial traffic on the line. Comparing this traffic with what operational costs for the railroad should be resulted in what looked like a possible profitable operation. Therefore, to look deeper and gain a more concrete understanding of the traffic, it was important to perform primary research. Speaking directly to the customers on the line not only provided the traffic numbers expected, but also gives insight into service issues that can affect the actual traffic counts and future plans to understand the impact of the rail line to economic development concerns and future needs beyond what the past year can illustrate.

During the week of December 1st, 2009, RII interviewed over 20 shippers in person to gain an understanding of their traffic, service needs, past problems with the railroad, intentions moving forward and impacts of rail service to their businesses. Additional interviews were conducted by phone, and several communities and economic development agencies were also interviewed.

Methodology

- RII contacted and interviewed the existing and potential customers on the rail line as identified by Maine DOT and MMA as well as the stakeholders of this project.

- The interviews determined current traffic on the line and also identified potential traffic that could be pulled from other modes of transportation given service issues were addressed.

- RII was also able to identify potential traffic that would most likely become available; this information was based on responses from the interviewed shippers regarding their anticipated traffic volume increases based upon their own economics and forecasting.

- RII also reviewed traffic numbers supplied by MMA for the years July 2004 to July 2009, with most current fiscal year numbers being used for analysis purposes.

- Based on the traffic numbers obtained during the interviews of shippers located directly on the line and MMA supplied traffic figures for the shippers that were not

interviewed, RII prepared a traffic analysis and traffic forecast. These figures were used in the operational and business analysis of the railroad.

Summary

This section is an overview of those interviews, but most importantly provides the traffic figures for the line. These figures are used in the operational economics to determine feasibility of the operations and profitability for a potential third party operator or investor.

RII was able to contact and interview 20 existing customers and two additional potential customers, which make up 95% of the business on the lines. The following shippers were interviewed:

Shippers	
Aroostook Starch	Beaver Brook Mill, Inc.
Boralex, Inc.	Columbia Forest Products
Dead River Company	The Fiber Resource Group
Fraser Papers Ltd.	Fraser Timber Ltd.
Huber Engineered Woods	Irving Woodlands LLC
Louisiana Pacific Corporation	McCain Foods
MPG Fresh	Maine Woods Company
Old Town Fuel & Fiber	Seven Islands Land Company
Lane Construction	Cavendish Farms
Cavendish Agri-Business	Moose River Lumber Compnay

Individual traffic figures for each shipper cannot be revealed, but the aggregated traffic results from these interviews are illustrated in the following chart:

Company Contacted	Existing Traffic Low	Existing Traffic High	Additional Potential	Total with Potential	Commodity
Shippers #1 - 20	8,563	9,257	3,426	12,207	Starch, Logs, Wood Chips, Veneer, Heating Oil, Propane, Paper Starch, Talc, Clay, Lumber, Resin, Powder PF, OSB, Wax Potatoes, Cooking Oil, Barley, Oats, Fertilizer, Limestone, Aggregate, Sand, Hardwood
Total Traffic:	**8,563**	**9,257**	**3,426**	**12,207**	**in carloads per year**

The shippers that were interviewed report existing traffic on the line totaling between 8,563 carloads to 9,257 carloads per year. During normal years, such as when the economy rebounds, traffic numbers could reach well over 12,000 carloads annually.

RII did not interview all shippers with annual carloads of less than 50 cars. These small shippers have a combined traffic of about 143 cars based on 2009 traffic numbers. In addition, RII was unable to interview one larger shipper with estimated traffic of 207 annual carloads. The chart below outlines MMA Fiscal Year 2008/2009 traffic numbers for the eleven smaller shippers and one large shipper on the line not interviewed, but included in the economics to follow:

2008 Traffic Numbers of Customers not Interviewed	Traffic Counts	Commodity
Shippers #21 - 32	350	Logs, Wood Chips, Soybean Oil, Corn Starch, Petroleum Gases, Potassium Sulph, Woodpulp Propane
Total Traffic:	**350**	**in carloads per 2008 year**

Based on all interviews, the traffic in this analysis is likely to move by rail; however, factors such as service, rates and equipment will all be important for determining what actually moves by rail.

Miscellaneous Area Interviews & Profiles

In addition to the above 20 existing customers RII interviewed in depth, RII interviewed one potential customer for future rail use upon the development of its facility. This potential customer outlined a minimum scenario of approximately 680 carloads during years 1-5 of production and up to possible 3,400 carloads at full capacity thereafter.

Please note that these potential future business development traffic numbers identified were not included in the economic pro forma analysis.

The following economic development agencies and government entities were also interviewed and their information and interviews are profiled below:

Loring Development Authority
154 Development Dr
Limestone, ME 04750
207-328-7005
Contact Person- Carl Flora, CEO

The MMA Line runs from Caribou to Limestone. In the past, the Air Force handled 25 inbound cars per week to Limestone and utilized rail to send supplies and equipment.

There are currently two potential businesses for rail:

1) This company has been considering building a DSB plant. The key to this project was that their location allowed them to use back roads to source material from the mill around to Loring with a potential 5-7 cars per day.

2) This company has been considering the construction of a French Fry factory and would also need rail service.

Without rail service the economic impact on the area would be high due to the fact that rail would be necessary for future projects on the campus.

Presque Isle Industrial Council
650 Airport Drive, Suite 10
Presque Isle, ME 04769-2088
Office: (207) 764-2542
Cell: (207) 227-2524
Contact Person: Larry Clark - Executive Director

Located in a strategic distribution area, the Skyway Industrial Park owns 5.5 miles of track and also has a transload facility with 1800 feet of track. The transload facility, built in 2001 has handled containers, windmill products, salt and fertilizer. The warehouse itself is 90,000 square feet with a 3-car siding.

The Skyway Industrial Park currently has 50 tenants, a few of which use rail presently. The industrial park needs rail service to draw future tenants and cannot afford to lose this service.

City of Caribou
25 High Street
Caribou, Maine 04736
(207)493-3324 ext. 230
Contact Person – Steve Buck
City Manager

Maintaining rail service in the area is extremely important to the City of Caribou. Without rail service, the City businesses could face a loss of customers, higher product prices and be forced to pay high trucking prices. This could put their city out of the competitive arena; they feel they need reasonable and reliable rail service for their economy.

One of the key shippers on the MMA line is located in the City of Caribou and an identified future business development would also be a key customer of the line.

Town of Fort Fairfield
18 Community Drive
Fort Fairfield, ME 04742
(207) 472-3800
Contact Person: Dan Foster
Ft. Fairfield Town Manager

Years ago, the Town of Fort Fairfield secured financing to purchase and rehabilitate the rail line from Easton to Fairfield with the hope of using rail in the future. To date, only a small amount of grain has moved. However, there is a biomass plant in Fort Fairfield that could use rail service in the future.

The line totals 8.6 miles and the Town of Fort Fairfield would like to develop this line, for future use. Losing rail service would greatly affect the area and the City feels it is imperative that whatever needs to be done should be done to preserve rail service.

Conclusion

It appears that there is substantial existing traffic, potential traffic and future traffic opportunities on this line to allow it to be self-sustaining in the future. There is not only enough traffic to marginally sustain the current operations, but there appears to be solid plans for increasing traffic with shippers in the near future. Much of the traffic that has declined in the last two years can be pointed back to diversions to truck due to inconsistent rail service.

It is much harder to re-establish rail service if it is allowed to lay dormant for too long. The area loses valuable industries as shippers go out of business, leave the area, or move to other modes of transportation. Other alternatives are invested in, and the area loses its attraction for new rail-conducive industries.

The public benefits of maintaining rail service are an upward spiral. With the identified and future industries attracted to the area due to the rail service, new jobs are created, and the entire area benefits from the growth. If the rail service lapses for too long, the condition of the line deteriorates as well since there typically is no maintenance from the current owner of the line.

In referencing the shipper interviews conducted by RII, a recurring theme is evident. The current shippers are interested in keeping their rail service and need it to continue at the present time and for future needs.

Operational Analysis

The Operational Analysis is a review of the operational requirements of the line and their associated costs to determine the economic sustainability of the line. The analysis takes into account traffic numbers, rates and other revenue sources, as well as the costs of operating the line based on the required service per shipper traffic and commodity demands. Rates, traffic numbers and service can be modified to develop the operation into an economically feasible plan, identify if the line cannot be operated economically and identify the revenue and traffic threshold for sustaining it.

In general, the objective of an operating plan is to establish a train schedule, which will move both loads and empties to and from the customers in an efficient and cost effective manner. The purpose of this rail economic analysis is to illustrate how viable the MMA railroad operation would be for a separate short line operator based on all available information and data provided to RII.

Methodology

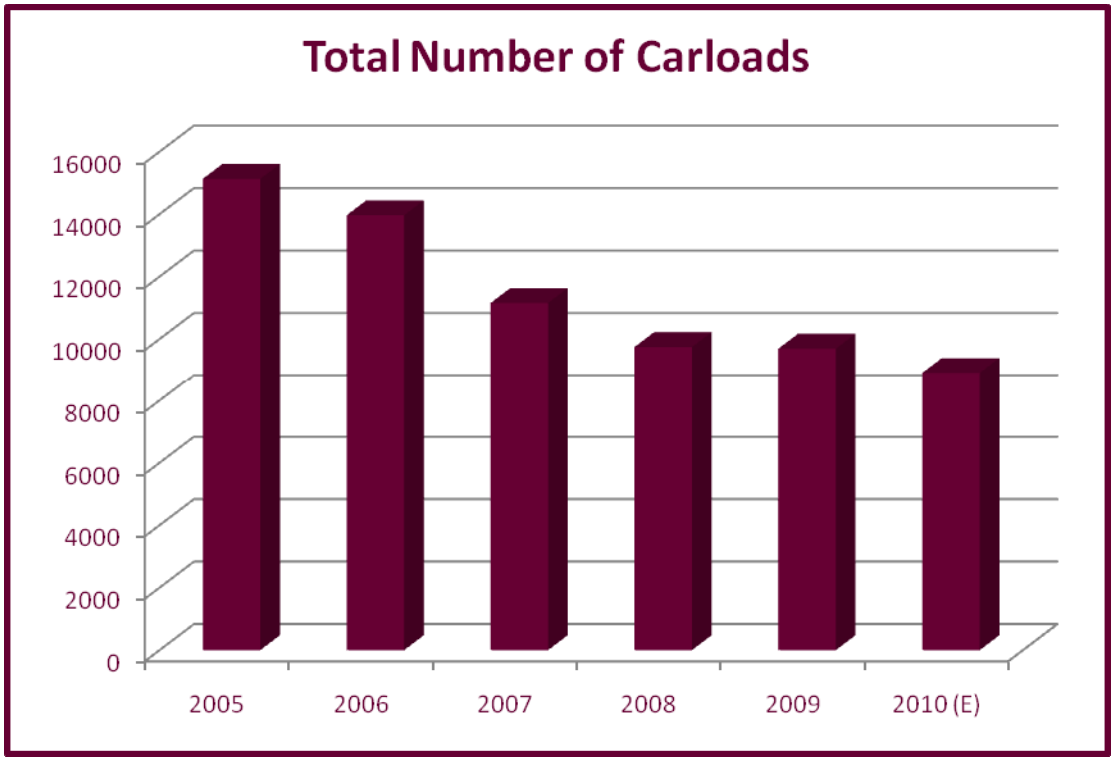
Operational economics are produced by inputting operational data into a proprietary model developed by RII that accounts for the unique railroad operational cost and revenue components. Data is developed by analyzing the existing operating plan and/or developing a new operation plan for each specific operation based on the traffic expected for the line and service needed. The model allows comparison of multiple operating plans with variable components to develop the rates and traffic needed to sustain operations at various levels, producing pro forma financial statements for each operation scenario for comparison of sustainability, profitability, return on investment, etc. The operation plan, including staffing and equipment needs, was designed based on RII's experience with rail operations and information provided by Maine DOT and MMA on this rail line. Traffic and revenue were determined based on the shipper interviews as described in the previous section.

Analysis

For purposes of this analysis, RII examined three operating scenarios to compare options for operating this line:

- The low range current traffic estimates from existing customers interviews
- The high range current traffic estimates from existing customers interviews
- The potential traffic estimates including the current traffic and the potential traffic based on customer interviews

Since 2005, the traffic volume along the referenced rail line has declined significantly, from over 15,000 cars to barely 9,000 cars in 2010. The distressed economic environment resulting from the global financial crisis in 2007 played a large part in this declined business activity. The following chart provides a glance at the traffic volume since 2005:



(Note: these carload numbers from 2005-2009 were provided by the State of Maine DOT. The yearly traffic number includes all the carloads from Aug.1 of previous calendar year to July 31 of current calendar year. For example, the 2005 traffic includes all the carloads from Aug. 1, 2004-July 31, 2005. The 2010 traffic is an estimate based on RII's recent interviews with shippers in November 2009.)

RII reviewed the historic traffic volume going through the stations along the rail line and developed the operating plan to handle all the traffic in a timely and efficient manner. The interchange point with MMA is at Millinocket. The operation was developed for the portion of MMA line identified for potential abandonment, estimated at a total of 233 miles in length with traffic ranging from 9,000 to over 10,000 carloads per year at this time. The operation calls for five-day train service from Monday to Friday every week.

Low Traffic Scenario

Based on RII's interviews, the low range of total traffic along this line is estimated at just under 9,000 cars. This low level of traffic generates only marginal freight revenue, barely covering daily operational expenses. This does not leave enough cash flow to pay the debt obligation incurred from commencing the operation. The cash flow streams are negative for the first seven years assuming that the traffic will maintain at least its current level, at which time only nominal profit is realized. This scenario of operation would not be lucrative to any potential operator. Due to increased cost pressures that shippers are facing today, raising the freight rate is likely not a viable solution either. For this scenario just to break even, it would require an increase of at least $40/car in freight rates.

High Traffic Scenario

Based on RII's interviews with shippers, the high range of total traffic along this line is estimated at 9,600 cars. The operation at this level of traffic generates sufficient freight revenue to cover daily operational expenses and to repay a small startup debt obligation. Although the cash flow in the first year is negative, the sustainable traffic gradually builds cash reserve and the overall operation is moderately profitable.

Unfortunately, given the scale of capital expenditures for purchase power and equipment to commence the operation, the ten year return is below 2%, which does not look attractive for potential third party operators. Furthermore, the operational economics do not take into account the capital cost for acquiring the rail line and to rehabilitate the rail line. MMA claimed that there is deferred maintenance on the line as high as $19M. If this is accurate, it will add significant financial burden to the MaineDOT's efforts to preserve and to improve the rail service. The ideal situation for the operation would be that the operation generates sufficient cash flow to help pay for a portion of the financing incurred. Since the operational expenses were developed based on a stand-alone operation with a relatively lean structure, there are only two ways to generate more revenue: one is to raise the freight rate and another one is to develop additional shippers and additional traffic. As mentioned previously, the shippers have been enduring increases in freight rates with declined services and reduced interchange schedules over the past several years. Continued freight rate increases is risky and might drive shippers away or divert traffic to trucks. Developing new traffic depends largely on the recovery of the overall economic environment and the rail service level the railroad can provide. In summary, this scenario is a profitable operation if projected traffic can be sustained for a long period of time and additional traffic developed in order to generate a high enough return to attract an operator.

Potential Traffic Scenario

The potential traffic was determined by the average traffic shippers reported during "normal" years, before the economic downturn, and what they expect to be shipping again in after 2011/2012.

With traffic increased by almost 30% compared with that of the high traffic scenario, this operational scenario is significantly profitable and provides sufficient cash flow for railroad acquisition costs and further capital improvement costs for rehabilitating the line. Although the potential total traffic seems high at over 12,000 cars annually, it is still slightly below the traffic levels realized in 2006. The peak traffic in 2005 had over 15,000 cars. This indicates that as the overall economy gradually recovers, the potential traffic level is definitely achievable. Given the State of Maine's abundant forest reserves, the traffic in logs, wood chips and wood related products are sustainable in the long run. Therefore, the economic impact of preserving the rail service could be significant.
If we assume that it takes a total of $20M to acquire the line, and the State of Maine is able to obtain a long term debt to fund the rail line acquisition, the annual repayment obligation is projected as follows: (assuming the interest rate is 5% with 20 year term):

TERM DEBT Senior Debt	START-UP	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Principal Beginning Amount	$ 20,000,000	$ 20,000,000	$ 19,395,148	$ 18,760,054	$ 18,093,205	$ 17,393,013
Term (years)	20					
Annual Interest Rate	5.00%					
Annual Payment	$ 1,604,852	$ 1,604,852	$ 1,604,852	$ 1,604,852	$ 1,604,852	$ 1,604,852
Interest Payment		$ 1,000,000	$ 969,757	$ 938,003	$ 904,660	$ 869,651
Principal Payment		$ 604,852	$ 635,094	$ 666,849	$ 700,191	$ 735,201
Term Loan Ending Principal		$ 19,395,148	$ 18,760,054	$ 18,093,205	$ 17,393,013	$ 16,657,812

Based on the operational economics, the potential traffic scenario for this operation is able to generate sufficient cash flow to cover at least 50% of the repayment obligation, while still leaving reasonable return for the potential operator. RII strongly suggests a final financing plan be developed depending on the final negotiated acquisition value and the potential financing arrangements among the State, Counties, Shippers and Operator.

In summary, with sustainable and achievable traffic levels, the preserved and improved railroad operation along Madawaska corridor will not only help businesses along the corridor recover more quickly, but will also have an impact on the State of Maine's future economic development. Further, attracting more business and diverting more truck traffic to rail, will contribute to more fuel and energy efficiency, reduced highway maintenance and cleaner air quality.

Issues & Concerns

The biggest concern for pursuing this project lies in the fact that MMA's potential abandoned segment of the railroad along Madawaska subdivision has no direct connection with any other regional or Class I railroads. This would force a potential third party operator to rely entirely on MMA for its interchange needs, unless MMA would like to be the operator for the line after MaineDOT acquires it. It would be difficult for a potential third party operator to improve the rail service if it has to rely entirely on MMA for interchange because it would not have control over its own service. Additional interchanges cause additional transit delays. In addition, adding a third carrier into the route would likely increase rates as each party must cover their own costs of handling the traffic.

According to RII's interviews and surveys, shippers have already endured increased rates and reduced service schedules, among other issues. The declining rail services have severely affected the shippers' business activities and competitiveness. It is not enough to simply preserve the rail line without improving the rail service. However, if an alternative operator is restricted by another carrier's interchange service, it likely will not be able to improve the service to levels necessary to increase traffic numbers. In addition, a potential operator would have to compensate MMA for the intermediate interchange service, which could easily turn a marginal operation into a loss situation.

Therefore, RII recommends that whoever acquires and/or operates the line will need to purchase or lease the trackage rights to the St. Leonard station at the north end of the proposed abandonment portion of the line and to the Brownville Jct. on the south end to gain direct interchange access to other carriers. Without direct interchange points, the line will not be able to negotiate competitive rates and control its own service levels, and preservation of this corridor may be unobtainable. If purchasing or leasing additional trackage rights are not negotiable, **an alternative option is to obtain MMA's commitment to cooperate on service schedules and fees as a precondition for acquiring the line and ensuring further support from the MaineDOT on MMA's overall operations in the state.**

Conclusion

This analysis basically shows that it is likely that additional reasons other than declining traffic contribute to MMA's lack of profitability on this portion of track and/or its decision to abandon it. The recession has had a hard impact on traffic as well, but it cannot be blamed as the sole cause for the situation on this line. If the Madawaska operation is truly losing money, it could be that there are large debt obligations unknown to Maine DOT that are eroding profitability/cash flow of the MMA operation either in its entirety or for the segment of the Madawaska subdivision. It could also be that overall operations on the MMA system are more costly than a usual situation, increasing the costs of operating this segment. There are multiple reasons for the possible lack of profitability, but the analysis of the segment from a third party perspective shows no reason why the operations cannot be operated profitably under the right conditions.

This operation can be sustained with a marginal profit with the current traffic, and could l be more profitable as traffic increases. Based on interviews, traffic could be increased by improving service levels, which would restore shipper confidence in rail and divert more traffic back from truck to rail. In addition, most shippers expect to be shipping back to "normal" levels within the next 2 years, which would restore traffic to highly significant and profitable levels. Some shippers indicated that they lose business sometimes due to the inconsistent rail service problem, which is another lost traffic opportunity that can be remedied toward a profitable operation.

These problems with service and loss of traffic are exactly what the State of Maine is concerned about. If business must be turned away by shippers, the area's own economic recovery will be hindered. In addition, reliable rail service is one of the key factors that attracts new industries to Maine, and the state has invested heavily in its transportation infrastructure, which is include reliable rail service. The key will be to negotiate an equitable approach with MMA to ensure this portion of line can continue in service profitably for the MMA or a third party who shows interest in operating the line, and maintaining it, and continuing to develop new business on it.

Net Liquidation Valuation

Net Liquidation Value (NLV) refers to the market value of an asset less the costs associated with its disposal. The disposal costs can include, but are not limited to: sales commissions, excavation, disposal, and environmental restoration. In essence, Net Liquidation Value is the realizable value of the assets - the track, land, equipment, vehicles and other structures - less the costs associated with their disposal to be used for any purpose. The NLV would be used for purchase value on this line from MMA, as well as collateral value for future RRIF loans.

Methodology

Due to weather conditions and unavailability of MMA's track personnel, RII could not perform the track inspection as originally planned. Usually, an inspection will provide the condition of each tie and section of rail by weight so the NLV analysis can estimate the market value of all components by their condition. Since RII was unable to perform this inspection prior to this report, a thorough NLV was not performed. Typically, if sufficient documents are provided, a desktop NLV can also be performed. This is less accurate than an inspection to determine actual condition of the track components, but by providing an "average" condition formula to the components, a solid figure for comparison can still be developed. In this case, RII was not provided with sufficient documents to develop a complete NLV. MMA provided its own NLV for the lines to be abandoned dated November 2009. This NLV included 30.25 miles of track not substantiated by the track charts or any other documentation. Therefore, for purposes of the NLV in this report, RII simply took for granted the same assumptions of condition and amount of assets as reported by MMA, but applied its own pricing based on its own research of current market values for these materials and costs.

Current rail, scrap, ties and salvage costs for rail were developed by consulting American Metal Market, the Scrap Price Bulletin and several rail salvage companies specializing in relay and reroll rail to develop the most recent pricing for a given area. The MaineDOT provided the estimated value of right-of way property along this line. It was assumed that the salvage condition of the railroad track structure and ties have not deviated from the salvage condition listed on MMA's NLV estimate dated November 2009, so those same conditions were used for track components.

There are a total of five subdivisions involved with MMA's intended abandonment. The NLV that MMA provided broke each subdivision down with its own track charts, identifying miles, rail weights, sidings, etc. For reasons of confidentiality, the NLV from

MMA cannot be disclosed in this report. Therefore, each subdivision is provided with its own comparative NLV in this section, to be aggregated at the end of this section.
The pricing RII developed for track components and salvage costs differed on many items. Therefore, using the same assumptions as reported in MMA's November 2009 NLV, RII recalculated the NLV based on the new component pricing. Since each subdivision had slightly different OTM per rail weights and salvage costs, a comparative chart is provided for each. Rail inventory used for this evaluation was provided by MMA.

Rail, OTM and Ties

Madawaska Subdivision

The main line of Madawaska subdivision runs from MP109 to MP206, for a total of 151 miles in length. There are a total of 32.6 miles of tracks that MMA claims to be sidings, yard and other industrial tracks. Although these are not substantiated by track charts, they have been included in this evaluation. Over 50% of the tracks in this subdivision are at weight 100 lb. and the rest of the tracks are split almost evenly between 112 lb. and 115 lb. Scrap steel value has gone up in January 2010. In addition, several other unit values have changed since November.

RII's most recent salvage value is as follows:

Madawaska Subdivision	
	RII's Estimated Recent Salvage Value
100 lb. Scrap (per GT)	$270
100 lb.Reroll (per GT)	$285
100 lb. Relay (per NT)	$550
112 lb. Relay (per NT)	$650
115 lb. Relay (per NT)	$700
115 lb. Relay (CWR) (per NT)	$750
OTM % of total weight (100 lb. & under)	25%
OTM % of total weight (over 100 lb. rail)	45%
Tie #1 Relay (each)	$12
Tie #2 Relay (each)	$10
Tie Landscape (each)	$4
Tie Scrap (each)	$0
Tie Dismantle Cost (per Tie)	$4
Track removal cost (per mile)	$17,500
Transport rail & OTM (per NT)	$45
Net Liquidation Value in Total	**$15,118,670**

Fort Fairfield Subdivision

There are a total of 12.3 miles of track reported by MMA for the Fort Fairfield subdivision, including 10 miles of main line track and 2.3 miles of sidings. Most of the rail is 80 lb. and 100 lb. track with only half a mile of 112 lb. rail. The majority of the rail can be salvaged as scrap rail. Only about 2.5 miles of 100 lb. rail were claimed as relay condition.

RII's most recent salvage value estimate is as follows:

Fort Fairfield Subdivision	
	RII's Estimated Recent Salvage Value
80 lb. Scrap (per GT)	$270
100 lb.scrap (per GT)	$270
100 lb. Relay (per NT)	$550
112 lb. Scrap (per NT)	$270
112 lb. Reroll (per NT)	$285
OTM % of total weight (100 lb. & under)	25%
OTM % of total weight (over 100 lb. rail)	45%
Tie #2 Relay (each)	$10
Tie Landscape (each)	$4
Tie Scrap (each)	$0
Tie Dismantle Cost (per Tie)	$4
Track removal cost (per mile)	$17,500
Transport rail & OTM (per NT)	$45
Net Liquidation Value in Total	**$300,112**

Limestone Subdivision

The Limestone subdivision has a total of 35.26 miles of tracks including 29.85 miles of mainline and 5.45 miles of sidings according to MMA. About half of the tracks are 80 lb. and 85 lb. rail and a majority of the rest of the tracks are 100 lb. rail. Only about 1.6 miles of the track are 112 lb. heavy rail. Most of the rail can be salvaged as scrap rail and the 112 lb. rail can be sold as relay.

RII's most recent salvage value estimate is as follows:

Limestone Subdivision	
	RII's Estimated Recent Salvage Value
80 lb. & 85 lb. Scrap (per GT)	$270
100 lb.scrap (per GT)	$270
100 lb. Reroll (per NT)	$285
112 lb. Scrap (per NT)	$270
112 lb. Relay (per NT)	$650
OTM % of total weight (100 lb. & under)	25%
OTM % of total weight (over 100 lb. rail)	45%
Tie #1 Relay (each)	$12
Tie #2 Relay (each)	$10
Tie Landscape (each)	$4
Tie Scrap (each)	$0
Tie Dismantle Cost (per Tie)	$4
Track removal cost (per mile)	$17,500
Transport rail & OTM (per NT)	$45
Net Liquidation Value in Total	**$626,486**

Houlton Subdivision

According to MMA's record, there are a total of 24.43 miles of track in the Houlton Subdivision, including 16.9 miles of main line track and 7.53 miles of siding tracks. Over 80% of the tracks are 100 lb. rail. About 1.5 miles of track are 115 lb. rail. Over one third of the 100 lb. rail can be used as relay rail. All of the rest of the rail is in scrap condition.

RII's most recent salvage value estimate is as follows:

Houlton Subdivision	
	RII's Estimated Recent Salvage Value
All Scrap Rail (per GT)	$270
100 lb. Relay (per NT)	$550
115 lb. Relay (per NT)	$700
OTM % of total weight (100 lb. & under)	25%
OTM % of total weight (over 100 lb. rail)	45%
Tie #1 Relay (each)	$12
Tie #2 Relay (each)	$10
Tie Landscape (each)	$4
Tie Scrap (each)	$0
Tie Dismantle Cost (per Tie)	$4
Track removal cost (per mile)	$17,500
Transport rail & OTM (per NT)	$45
Net Liquidation Value in Total	**$1,115,165**

Presque Isle Subdivision

According to MMA, the total length of railroad tracks for the Presque Isle subdivision is 29.14 miles with 25.3 miles of main line and 3.84 miles of sidings. Most of the rail is a mix of 100 lb., 112 lb. and 115 lb. rail with just about 1.4 miles of 80 lb. and 85 lb. rail. Some of the 100 lb. 112 lb. and 115 lb. rail can be used as relay rail.

RII's most recent salvage value estimate is as follows:

Presque Isle Subdivision	
	RII's Estimated Recent Salvage Value
All Scrap rail (per GT)	$270
100 lb. Relay (per NT)	$550
112 lb. Relay (per NT)	$650
115 lb. Relay (per NT)	$700
OTM % of total weight (100 lb. & under)	25%
OTM % of total weight (over 100 lb. rail)	45%
Tie #1 Relay (each)	$12
Tie #2 Relay (each)	$10
Tie Landscape (each)	$4
Tie Scrap (each)	$0
Tie Dismantle Cost (per Tie)	$4
Track removal cost (per mile)	$17,500
Transport rail & OTM (per NT)	$45
Net Liquidation Value in Total	**$1,928,410**

A summary of RII's NLV estimates for each subdivision is as follows:

		RII's NLV Estimate
Madawaska Subdivision	$	15,118,670
Fort Fairfield Subdivision	$	300,112
Limestone Subdivision	$	626,486
Presque Isle Subdivision	$	1,928,410
Houlton Subdivision	$	1,115,165
Subtotal NLV of Track & Ties	$	19,088,843

Real Estate Right-of-Way Value

RII did not appraise the right-of-way property value along the referenced railroad. The MaineDOT provided the real estate value at an estimated $1.8 million.

Based on all information provided, the comparative Total Estimated NLV for this portion of the line including Right-of-Way Value is as follows:

		RII's NLV Estimate
Madawaska Subdivision	$	15,118,670
Fort Fairfield Subdivision	$	300,112
Limestone Subdivision	$	626,486
Presque Isle Subdivision	$	1,928,410
Houlton Subdivision	$	1,115,165
Subtotal NLV of Track & Ties	$	19,088,843
Estimated Right-of-Way Value	$	1,800,000
Total Estimated NLV	**$**	**20,888,843**

Bridge Report Analysis

MMA recently performed inspections for the bridges located on its lines, including the portion planned for abandonment described in this report. This bridge report was provided to RII to determine the condition of these structures and assess any significant rehabilitation costs that might be required. These costs would need to be considered in the negotiation strategy for acquiring the line, as well as any financing plan.

Since RII was not afforded the opportunity to inspect the line physically, these bridge reports were thoroughly reviewed by RII's consulting bridge expert. Based upon this analysis, there appear to be no immediate concerns or repairs needed. The bridges noted on the watch list do need minor service, but nothing critical with regard to safe railroad operations. Based on these reports, if MMA follows its normal routine annual bridge maintenance program, these bridges should be maintained adequately.

Concerns and Conclusions

One of the biggest concerns was that according to the NLV information provided by MMA, there are a total of 284.7 miles of track including main line, sidings, industrial track and yard tracks. According to the track chart of the Madawaska Subdivision and the station timetable information for other related subdivisions provided by MMA, the total length of tracks including main line and sidings add up to 254.45 miles, resulting in 30.25 miles of unsubstantiated track mileage, which will need to be verified through inspection. If there are 30.25 miles of track in sidings and yards to be included in this transaction, RII suggests that this discrepancy in track mileage be further verified since this could represent an estimated $1M-$2M deviation in the final NLV of the rail line.

RII's NLV for the 5 subdivisions, based on the reported condition of MMA was $20,888,843. This includes the 30.25 miles of track claimed by MMA that needs to be verified by an inspection. Without these 30.25 miles, the NLV would be only approximately $18,000,000.

The purpose of the valuation is to provide a referenced salvage value of the rail line so negotiation strategies and funding plans can be developed based on the estimated value. In reality, if the railroad is to be disposed of, the actual salvage use and salvage value could vary from any estimated NLV at that time. In addition, since the market values for scrap steel and reroll/relay rail are constantly changing, the ultimate realizable value of the referenced rail assets could vary when the railroad is actually salvaged. Therefore, if several months pass before the acquisition is completed; a new NLV should be calculated.

Funding Options

Based on the NLV, the estimated preliminary rail line acquisition price will be about $19 - $21 million. The figure will serve for helping to identify what funding options are available for this acquisition, any rehabilitation needed and start up costs for an operator. Given the extent of capital involved with this railroad acquisition, there are several options for pulling all the interested parties together to obtain sufficient funding to accomplish this goal.

Ownership Options

Public Ownership: Public Ownership means that the State of Maine acquires and takes the full ownership of the referenced railroad via public funding sources, such as grant, bond issuance or term loan, etc. Another option is to create a newly initiated public entity under the umbrella of the State of Maine/Maine DOT, such as a Regional Rail Authority. It can also be a public ownership pool from a combination of the State and area Counties and Cities, etc. The public entity can designate either another public entity or utilize existing public employees or a third party private operator to operate the railroad. The continued operation of the railroad can be self-sustained by the operations, funded partially with public funds or by a combination of public funds and private debt if a third party private operator is selected. The full financial risk of the acquisition is assumed by the public entity, which can in part be mitigated through guaranteed volumes by shippers, and fixed user fees over a set period of time. The biggest benefit of this option lies in the public entity's zero tax liability and its wide access to a variety of grants, loan and loan guarantee funding programs at both federal and state levels.

Private Ownership: In this scenario, a private entity acquires, takes ownership of the railroad and operates the railroad. The private party assumes the full financial risk. Public funds are generally not involved with this type of ownership. The private party can either be another railroad, an individual investor, an investment group or a pool of interested parties. Funding is generally obtained from a specific loan program or from the private sector in the form of shareholder equity or debt. The debt can be secured using future revenue streams from the railroad customers. For the referenced Madawaska subdivision, RII is not completely ruling out the possibility of private ownership for acquiring and further operating this line. However, given the marginal operation of this line and the extent of capital involved based on the claimed and anticipated high deferred maintenance expenses, it may not be that lucrative for a private investor, and would be hard to attract such a private party. Generally a private

investor/party requires at least 15% ROI on its capital investment, which is not practical with the line's current traffic level.

Public Private Partnership: Another option is to form a Public Private Partnership based on public ownership. The benefit of this scenario is that public ownership has wide access to federal and state grants and other funding opportunities, thus creating interest and motivation for private parties to contribute a certain amount of capital towards the total capital required to consummate a purchase transaction. The interested parties would include dominant shippers along the reference railroad, a potential short line operator who will be operating the line, and possibly even CN and NS that have a significant amount of traffic moving through this line. The major shippers along this line might be willing to participate in preserving and improving the rail service on this line. If improved rail service makes the traffic sustainability viable in the long run, the MaineDOT can help persuade shippers to commit a certain amount of traffic over a number of years, and the potential third party operator would have motivation to contribute funding to gain exclusive operating rights on this line. RII can approach CN and NS to explore the possibility of getting these Class I's involved with this project financially. Depending on the extent of support the public entity can provide, it could be lucrative enough for private parties to get involved financially.

Funding Programs

One grant programs currently exclusively available to public entities is the US Department of State's "Rail Line Relocation and Improvement Capital Grant". In FY2010, there is a total of $20,502,500 available for competitive projects. Anticipated application submission is expected to be in early 2010. It is strongly suggested that the MaineDOT explore this funding option and take action as soon as possible. The eligible projects are construction projects undertaken for the improvement of the route or structure of a rail line that either (1) is carried out for the purpose of mitigating the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life or economic development, or (2) involve a lateral or vertical relocation of any portion of the rail line. Since there is a significant amount of capital improvement work on the track that will be involved after the railroad is acquired, RII believes work on this line meets preliminary criteria of the eligibility statute. However, further communication with US Department of State would be necessary to further confirm eligibility, the process and time line, etc.

Another program established specifically for railroads is the Railroad Rehabilitation and Infrastructure Financing (RRIF) loan, from the Federal Railroad Administration of the US Department of Transportation. In general, RRIF would be the most viable long term loan option regardless of what type of ownership is in the final deal. The RRIF program can provide direct loans and loan guarantees to state and local governments, government-sponsored authorities and corporations, railroads and joint ventures that include at least one railroad. Direct loans can fund up to 100% of a railroad project with

repayment periods of up to 35 years and interest rates equal to the cost of borrowing to the government. The loans are required to be used for one or more of the following:

- Acquire, improve or rehabilitate intermodal or rail equipment and facilities
- Refinance outstanding debt incurred for the purpose above
- Develop or establish new intermodal or railroad facilities

Pro: The benefit of the RRIF program is that it does not restrict the ownership of the applicant and it has recently extended the repayment period from 25 years to 35 years. There is also a six year grace period where repayment can be postponed.

Con: The disadvantage of the RRIF loan is that it can take up to 120-180 days for the FRA to review the application once all information is complete, and MMA has already been awarded a RRIF loan in 2005. Based on information received to date it is believed that MMA is still under the repayment period for the loan. At this moment, it is still unknown whether the abandoned portion of the railroad was involved with the previous RRIF application or not. If funds from the RRIF loan were supposed to go toward improvements on the portion now proposed for abandonment as per the strict RRIF application guidelines, MMA may need to repay part of that loan to the FRA prior to transfer of ownership.

Another financing option could be to provide MMA with a carry back note, which means MMA will not get the full payment for the rail line acquisition amount up front. The mutually agreed amount of the railroad value can be paid off through a number of years with reasonable terms on the note. This option heavily depends on MMA's financial situation and cooperation, but is ultimately worth exploring through further discussion and negotiation with MMA.

Lastly, the shippers on the line should be approached for contributions, either for ownership of the line in whole or part, or for loans to be paid back over time. Interviews expressed that there was interest in this possibility. This is a common solution for gaining capital for a rail project where large shippers require the rail service for their operations, and one of the shippers on the line currently has experience with this type of financing partnership.

Conclusions

A detailed financing plan can only be developed after the total capital cost for purchasing and rehabilitating the line is finalized. According to the MaineDOT, MMA would be liable to MaineDOT for $4,826,239 under the payback provision of the grant agreements from a previous grant program if they pursue abandonment in calendar year 2010. There is also a current balance of $711,338 under an existing contract that MMA was entitled but has not drawn. The fact that MMA has received $10,488,662 in State funding since 2002 under different grant programs should also be considered and could further have impact on the outcome. The exact amount that the shippers can pool together and that the potential operator could contribute will all depend on how the MaineDOT will take direction on this project and how much financing burden the MaineDOT would be able to take.

After negotiations with MMA to determine their likely position on trackage rights to reach other carrier interchanges, actual acquisition pricing, existing debts and payback obligations, deferred maintenance deductions, rate and service commitments, etc., a strategy on what funding package will work best to cover all costs. This will also be affected by negotiations with the dominant shippers on the line and potential third party operators, all of whom represent private party investment options toward reaching the financing goals necessary for this project. These parties may contribute capital to the project, and/or provide cooperation through traffic commitments, fixed rates and service commitments, reimbursement from operational cash flow, etc. Traffic commitments would be in the form of a “take or pay” agreement, so that the railroad could be assured of a minimum revenue amount.

Once the full costs and contributions for each party are known, we can develop a complete Financing Plan for the acquisition, rehabilitation and ongoing obligations of the facility.

Third Party Operators

A third party operator (3PO) is a private party that operates a facility on behalf of the owner. The 3PO is completely responsible for the operations and business of the facility, usually leasing the property for a long term period. The 3PO usually holds no ownership in the facility, and the owner can select the 3PO that best fits their goals for the facility and service.

There are numerous 3PO's providing rail operations throughout the country. However, this situation will require a special type investor/operator. This operation is not a picture-perfect operation where multiple 3PO's would compete for the opportunity. The role of the operator in this operation will need to be negotiated to establish the contributions and responsibilities of the operator to ensure they receive an acceptable benefit while still reaching the goals of MaineDOT and its shippers. There is a small set of 3PO's that seek out operations such as this as an investment and have experience in making marginal operations profitable.

RII approached several of these private parties to assess their interest in the MMA operation and several expressed that they would consider contributing a certain amount of capital toward the total capital cost to continue the rail service on this line, depending on the amount of rail traffic available.

Several of these special operators expressed interest, but would need more information before expending efforts at due diligence.

Conclusions

In order for any 3PO to continue their assessment of the MMA operations, they will need to see final numbers in relationship to the NLV and the required capital improvements that need to be identified. This will require a thorough track inspection in order to determine the true rehabilitation costs and substantiate the NLV figures from MMA. Based on these solid assessments, we will be able to determine the Return on investment (ROI) for 3PO's to attract their interest and determine what contributions they could make to the overall financing plan.

System Rationalization

Rail system rationalization is streamlining of the rail system based on careful examination of operations, service requirements, traffic, logistics, existing assets and future goals. The purpose is to identify segments of the system that are necessary in order to provide the most efficient operation and preserve future goals so that resources can be focuses on those segments. Rail operation is a capital intensive endeavor. Providing train service and maintaining track are costly. Therefore, it is imperative to ensure those resources are going to the parts of the system most needed, as opposed to being wasted on unused sidings, little to no traffic branch lines or redundant lines.

For this line to be viable, it must have the option to interchange with another carrier. It must have control of its own operations and traffic development to move beyond the marginal economics to which it has been brought. This can occur by providing access to the St. Leonard station, southeast of Madawaska, to allow direct access to Canadian National Railways (CN). Another concern is having a southern connection with another carrier, so extension of access to the Brownville Junction, south of Millinocket would be necessary. Access to these stations could be handled by any of the following means:

1) Include these portions of track in the sale of the line.
2) Lease these portions of track from MMA.
3) Pay for trackage rights to access this track and these stations.

Further recommendation is that the Branch Line beyond Presque Isle be evaluated within one year after the new operation is in place. If this section of the line is not producing a set amount of revenue for the new operator, then it may be pivotal to eliminate this portion in order to reduce operating costs of the line. If and when this option comes to pass, it may be worthwhile to look at the value of the track that can be pulled up and salvaged for additional revenue vs. the loss of traffic, and MaineDOT may wish to examine the economic impact of rail service to those branches on the surrounding area and shippers. The other branch lines should also be examined, and DOT may look at establishing a transload for branch line shippers to access the line if the branch lines are found to have insufficient traffic to continue rail service on them.

Environmental & Economic Impact

The State of Maine has deeper concerns than what traffic is available today and how profitable the operation will be in the future. The greater issue here is a regional outlook on competitive rail service, a forest products industry largely dependent upon rail to remain competitive itself and the environmental and economic costs to the entire state if rail service is lost. Many environmental, economic and safety benefits for retaining its rail infrastructure were identified in the state's recent ARRA TIGER grant application. This section highlights those benefits and others for protecting and preserving the rail infrastructure remaining in the state.

Maine Rail Initiatives

This project will compliment other Maine rail program initiatives, including the Industrial Rail Access Program and Freight Rail Improvement Program. The Maine Integrated Freight Strategy identified this rail corridor as important to the economic viability of the natural resource-based industries of northern and western Maine. Maine also established the Rail Corridor Protection Program to purchase, lease or otherwise partner with railroad companies/operators to improve rail corridors that are at risk of abandonment or have deferred maintenance due to reduced traffic levels. The goal of this program is to protect economic assets including paper mills, forest and lumber product facilities and other manufacturing facilities critical to the state's economy, sustainability and overall quality of life.

Characteristics of Corridor

Improvements to the rail infrastucture in this economically distressed area of Maine will provide upwards of thirty immediate jobs during construction and increased economic opportunities for existing and new industries using freight service. This project would also increase economic activity associated with development of new and emerging markets in the region.

Aroostook County, rural in nature, has a population of 73,938 (US Census 2000), and is Maine's largest county consisting of 6,435 square miles. The Aroostook County per capita income is 72.4% of the national per capital income for 2006, and has an unemployment rate that is at least 1% greater than the national average unemployment rate. The poverty rate for people of all ages in Aroostook County stands just under 18%.

MaineDOT has identified twenty-one (21) businesses that use rail transportation in Aroostook County. The outright abandonment of freight rail service will have an immediate and direct negative economic effect on these companies. These companies,

already experiencing serious economic challenges, will endure increased operating costs for the delivery of materials used in production, in turn making them less competitive in regional and national markets. Without continued rail service these firms may be forced to cut production levels, potentially resulting in layoffs.

Environment Cost for Abandoning the Railroad

If MMA eventually abandons the railroad of Madawaska Subdivision and the rail service along this line is completely shut down, the potential damage to the community would be significant. At the beginning, all the shippers along the line might have to divert all their current traffic to truck to try to survive. This will create an additional traffic burden on Maine's existing road transportation system in highway maintenance cost, increased fuel consumption and spending and pollutant air emission. In the long run, the shippers along the rail line will lose their competitiveness due to the increased cost of truck shipping. If we assume all the business will be able to survive and have to divert all the traffic to truck, the environmental cost resulting from the closed rail service follows:

Additional Highway Maintenance and Congestion Expenses		
Average annual truck trips added if railroad abandoned	36000	
Average tons per truck load	25	
Average hauling miles via truck within the State of Maine	400	
Additional Annual Highway Maintenance Expenses	**Unit Variable**	**Total**
Number of annual truck trips added		36,000
Additional annual pavement replacement costs ($ per ton mile)	$ 0.007	$ 3,528,000.00
Potential Additional Highway Accidents Per Year	0.28 Per 1 million vehicle miles	***202***

Increased Highway Maintenance Cost

According to a previous Pennsylvania Railroad Economic Assessment Study, the marginal pavement replacement cost exceeding state diesel tax revenue ($/ton mile) is at an average of $0.007 per ton mile nationwide. If we borrow this variable to quantify the cost of diverting all the rail traffic to truckload, the additional annual highway maintenance cost and congestion prices are estimated as follows:

This calculation is based on the following assumptions:

1. Annual traffic is estimated at 9,000 rail cars.
2. Each rail car is assumed to be equivalent to four truck loads, with each truck holding net 25 tons of commodities.
3. The net weight of a truck without load is assumed at 10 tons.
4. The average hauling miles of one way truck traffic within the State of Maine is estimated at 400 miles.

Additional Fuel Consumption

According to United States Bureau of Transportation Statistics data, rail fuel consumption is approximately 87% less per ton-mile than trucks. One gallon of diesel fuel moves one ton of freight an average of 406 miles by rail compared with 217 miles that one gallon of diesel fuel can move by truck. The following facts compare the fuel efficiency of rail transportation to trucks:

- If just 10% of the freight moved by highway was diverted to rail, the nation could save as much as 200 million gallons of fuel annually.
- Railroad fuel efficiency has increased by 72 % since 1980. At that time, 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.
- Trains are 2-4 times more fuel efficient than trucks on a ton-mile basis.

It is becoming more and more apparent that trucks are adding to the daily traffic congestion on all of our major highways. The trend is that all the transportation related government agencies, whether it is Federal, State, County or City, are making great efforts to divert as much truck traffic possible to rail. The opposite effect of forced diversion of traffic from rail to truck will not only add significant additional traffic to road, but also increase the fuel consumption, and thus emit more air pollution as well. The quantified cost of diverting the rail traffic along the intended abandoned rail line to truck is illustrated as follows:

Additional Fuel Expenses if Railroad Abandoned

		Rail Fuel consumption	Truck Fuel Consumption	Total Additional Fuel Consumption via Rail
Fuel Efficiency (ton miles per gallon of diesel)		406	217	
Average annual truck trips added if railroad abandoned	36,000			
Average tons per truck load	25			
Average hauling miles via truck	400			
Total added annual truck trips	36,000			
Total added ton miles	1,008,000,000			
Additional Fuel Used in Gallon		2,482,759	4,645,161	***2,162,403***
Additional Fuel Cost Consumption Per Gallon		$ 7,448,276	$ 13,935,484	***$ 6,487,208***

Railroad Industries Incorporated
Full Service Transportation Consulting

Emissions

According to U.S. Environmental Protection Agency data, rail emissions are from 75% to 96% lower per ton-mile than trucks for three criteria pollutants: carbon monoxide, volatile organic compounds (VOC) and Nitrogen Oxide (NOx). In addition, automobile traffic tends to increase in emissions in urban areas when there is increased truck traffic involved due to lower speeds traveled. A few facts about emissions comparisons include:

- The U.S. EPA estimates that for every ton-mile, a typical truck emits roughly three times more nitrogen oxides and particulates than a locomotive. Other studies suggest that trucks emit 6 to 12 times more pollutants per ton-mile than do railroads, depending upon the pollutant measured.

- According to the American Society of Mechanical Engineers, 2.5 million fewer tons of carbon dioxide would be emitted into the air annually if 10% of intercity freight now moving by highway were shifted to rail.

- Trains are 3 to 4 times cleaner than trucks on a ton-mile basis.

If we just look at the number of truck trips that will potentially increase from abandoning of the MMA's Madawaska subdivision, the air emission will significantly increase and the increased air emission is estimated as follows:

Environmental Impacts - Additional Air Emissions if Railroad Abandoned		
Average annual truck trips added if railroad abandoned	36,000	
Average tons per truck load	25	
Average hauling miles via truck	400	
Total added annual truck trips	36,000	
Total added ton miles	1,008,000,000	
Variables of Air Emission Increase		
(Note: Variables are rail vs.truck grams per ton-mile)		
	Variable	Total Added Air Emission i
Carbon Dioxide Consumption	143.85	159,835.80
Nitrogen Oxide Consumption	2.53	2,811.15
Carbon Monoxide	1.2	1,333.35
Hydrocarbons	0.3	333.34
Volatile Organic Compounds	0.6	666.68
(Source: Carpenter, T.G. The Environmetnal Impacts of Railways)		

The total environmental cost is illustrated as follows:

Summary of Environmental Impact if Railroad is Abandoned		
Transportation System Impact		
Additional Annual Pavement Replacement Costs	$	3,528,000
Potential Additional Highway Accidents		202
Total Additional Fuel Consumed (Gallons)		2,162,403
Total Additional Fuel Consumed (Dollars)	$	6,487,208
Environmental Impact - Air Emission		
	Total Added Air Emission in Tons	
Carbon Dioxide Consumption		159,835.80
Nitrogen Oxide Consumption		2,811.15
Carbon Monoxide		1,333.35
Hydrocarbons		333.34
Volatile Organic Compounds		666.68

Safety Impacts

In addition to the impacts of air quality degradation, adding 36,000 truck loads per year to the state's highway system also poses safety concerns for roadway travel. More truck traffic increases the probability and instance of traffic accidents on highways.

There is also a misconception that abandoning railroads will reduce the number of railroad crossings, thereby reducing the number of accidents at railroad grade crossings. However, adding traffic to the other crossings does not reduce the number vehicles traveling over grade crossings. Adding 36,000 additional trucks traveling over the existing grade crossings throughout Maine's extensive short line railroad network will likely increase the traffic over even busier grade crossings, not reducing the probability and incidences of crossing accidents at all.

This acquisition will result in the immediate improvement of the physical conditions and operations of the rail lines. By reversing reduced service levels and maintaining the condition of the lines, the state and railroad will encourage development of new business on the line that will generate revenue. Newly emerging markets for edible oils, energy products and wind farm components do not have the current volumes required to support the rail service, but do offer the potential for economic sustainability in the region in the form of job growth.

With improved rail operations and transportations savings, truck to rail diversions are anticipated which will provide an overall reduction in gas consumption and associated

emissions. These emissions reductions have an economic value to our state, not only in the decreased dependence on petroleum products, but with the enhancement of our air quality thus reducing the common health risks such as asthma, cancer and other respiratory diseases associated with toxic pollutants most common in diesel combustion engines.

In the event that this portion of railroad is abandoned, a significant portion of the current carloads of products will most likely be shipped to market by truck. Given the fact that one carload of freight is equivalent to 3.5 to 4.0 truck loads, the loss of this important rail segment may translate into as much as an additional 34,100 to 39,000 trucks on local and state highways per year.

Based on weight limitations imposed on truck traffic throughout the region and the required travel routes to reach customers, trucking product in and out of the counties will require travel on secondary and local roads until they make their way back to the interstate. This significant increase in truck traffic will undoubtedly result in additional wear and tear on existing roads and bridges, but will theoretically increase motor vehicle and pedestrian traffic accidents.

MaineDOT completed a cost benefit analysis based on future volume growth and truck to rail diversion. Costs included capital investment and anticipated increases in operations and maintenance. Benefits in the analysis included estimates of savings for time, freight, emissions, and highway maintenance based on industry accepted values. With the base considered to be the complete abandonment of the MMA line, the major source of benefits is centered on the cost differential between $.20 per ton mile for truck versus $.05 per ton mile for rail with an initial 644,000 metric tons of freight expected to divert to rail. Ultimately, MaineDOT determined that the proposed project has a benefit cost ratio above 1.0 indicating that discounted benefits are higher than discounted costs and therefore provide a net gain in overall benefits for the investment.

Economic Impacts of Abandoning the Railroad

The objective of acquiring the rail line between Madawaska and Millinocket and the other four related subdivisions from MMA is to preserve and protect the rail service along these lines. The Madawaska subdivision of the MMA is a critical rail corridor that connects Northern Maine to the rest of the national and regional rail transportation rail network. Some of Maine's largest shippers sit on this portion of rail line, contributing greatly to Maine's economy and stability. Maine and its shippers cannot afford to lose competitive access to these markets.

This area holds one of the country's best remaining resources for forest products. Some of these industries cannot compete in the market without the economical transportation offered by rail alone. Utilizing rail typically reduces transportation costs by 10-25%. Without rail service, many forest products industries could close as they have in many other parts of the country. Jobs and public revenue lost when businesses close hurts the entire region and state. These industries play an important role in the economy of the entire state and are dependent upon rail service to remain competitive in their respective markets. Newly emerging markets in the area for edible oils, energy products and wind farm components will also be unable to develop their potential without reliable rail transportation as they grow.

In addition, shippers, communities and the state have invested millions of dollars into new infrastructure at plants, industrial parks and ports that is dependent upon continued reliable rail service and corridors into the future. Rail service is a key selling point in the attractiveness of an area for new industries seeking places to locate. The investments in Maine's rail infrastructure need to be protected for long term economic development and stability of the entire region.

MaineDOT has consistently sought to protect and preserve rail corridors through acquisition and/or public private partnership through the years, and the purpose of this project would include both the acquisition of the rail corridor as well as immediate capital improvements to the corridor. Rehabilitation will include replacement of rail and ties, surfacing of track and improvements to bridges, which will function as an accessible transportation network in this corridor.

The improved freight railroad system would provide a safe, affordable mode of transportation for companies to send and receive freight nationally, thereby enhancing the economic competitiveness of not only the immediate region, but the entire state. Without the renewal of this vital regional infrastructure, firms in the region would utilize more trucking which would have the combined effect of increased road damage, increased air pollution from diesel emissions, and more costs for the transport of goods.

Several additional benefits were in the State's recent application for an ARRA TIGER Grant to invest even more in this rail infrastructure. These benefits were identified as critical to the area and the state from this project:

1. The long-term employment of 20 railroad personnel is anticipated if the rail lines are not abandoned with an estimate of $1.2 million annual compensation.

2. Aroostook County, where the majority of the lines in question are located, will be ensured long-term rail service. With so many industries that directly rely upon rail transportation, the loss of service will eliminate their competitiveness in the national and international markets. The potential loss of jobs associated with reduced revenue for these businesses will have serious negative economic impacts to the region.

3. It is estimated that 30 additional jobs will be created to complete the capital improvements to the rail lines. Wages and benefits are estimated at $1.8 million annually for these contractors.

4. Continued rail service will reduce the anticipated increased truck traffic on the roadways. The wear and tear to the primary and secondary roads from the increase in the number of trucks will only worsen their current conditions.

5. Future economic development relies heavily on continued rail service. The State and the railroad's operator must actively seek opportunities to enhance the region and its economic advantages.

Conclusions and Recommendations

The bottom line discovered from this research and analysis is that the operation can indeed be viable with the traffic on line, but will take some commitments from other stakeholders in order to remove the risk of further declining traffic. The risks that would harm traffic and hamper a new operator from succeeding include:

1. If the new operation were solely reliant upon MMA for interchange and connection to other railroads, there is a risk that any service issues with MMA would impede service efforts for a new operator.

2. Inability to develop competitive rates for shippers due to interchange carrier rates and fees, either by MMA and by other carriers in the routing.

3. Any decline in traffic, which would need to be sheltered by commitments from the shippers.

4. Timing on determining who will hold the debt in order to acquire the line. Delayed commitment on this issue could harm the entire deal with MMA or position with the Surface Transportation Board (STB).

5. Commitments on contributions to remedy the deferred maintenance. Those stakeholders with the most to gain or lose may need to be approached to step up and commit contributions to the capital costs for the rehabilitation of the line.

6. Equipment may not be supplied by MMA, and may need to be acquired, and therefore included in the capital expenses for acquiring and operating the line.

7. A long delay in resolution of this problem due to lengthy negotiations or a long STB challenge could harm shippers as service declines, traffic is lost, and a new operator will ultimately have a harder time bringing it back.

Approaches

There are several contingent factors and unanswered questions that MMA will need to address, which could affect the viability and pricing for this line.

Based upon our knowledge of the MMA line at this time, the following items still need to be addressed with MMA:

1. Deferred Track Maintenance – MMA states that the dollar amount of deferred track maintenance and upgrades necessary is $19 million. While their numbers have not been substantiated by completing a track inspection, RII believes that this amount may be less.

2. Track Inspection – RII was not able to complete a track inspection, therefore, all claims regarding condition of the track, deferred maintenance figures and assets related to the NLV have been provided by MMA. This is workable for comparison and preliminary analysis, but will not suffice for due diligence on a purchase of this size and nature. An objective third party inspection of the assets will need to be completed before the acquisition is complete, and any 3POs will require more concrete data on this as well. This should be treated as a contingent factor during negotiations, stating any price is dependent upon the results of the inspection.

3. Declining Traffic – Traffic has declined for multiple reasons. Granted, traffic has declined dramatically due to the overall economy and business is down with all shippers. This is a temporary decline that has existed for the last 2 years, and is likely to continue for the next 12-18 months. However, traffic has declined artificially on this line as well due to dropping service levels and increased rates that have diverted significant traffic to trucks and lost some markets and customers for shippers on the line.

4. Relationship between Shippers and MMA – During the shipper survey, it was reported that the communication between MMA and the shippers had declined over the last year and earlier. Carloads that could have been shipped on the line were transferred to truck; the MMA or any new operator will need to pull back as much traffic to the line as possible in order to make the operation sustainable. This will require re-establishing relationships as well as a reliable service.

5. Current Proposed Interchanges – MMA's current proposed interchanges at Millinocket and Madawaska could make it difficult for an operator to conceivably turn this operation into a profitable operation. The current line as proposed for abandonment would leave a new operator captive. This is not a solid foundation

for a new operator to develop new business, keep rates down and develop competitive service and rates with multiple carriers.

6. Connecting Competitive Rates – If a new operator must interchange with MMA, they must also compensate MMA to do so. This adds a third (or more) carrier to rates that were already considered excessive by shippers. Interchanging directly with other carriers not only reduces rates, but keeps them competitive. It also gives the new operator the opportunity to develop service and rates with shippers to re-establish their relationships with the railroad and bring back rail business, which might otherwise be impossible. The State and new 3PO will need to develop competitive rates for traffic to move by rail.

7. Future Service from MMA – If MMA will provide future service to the new operator, some concessions must be negotiated. These might include competitive fixed rates or service commitments, or any other concessions that help allow a new 3PO to succeed.

8. Equipment Supply – A concern not yet addressed is the equipment supply for the new railroad. As RII understands, most shippers order their railcars from MMA, who supplies the majority of the equipment for all customers on this line. If MMA were relied upon to provide railcars, it would charge car hire for the time the cars are on the new operator's line. If MMA were not part of the service routing, it would not likely provide the cars. Cars would need to be ordered from the connecting carriers, who should be contacted to ensure equipment availability for this service. In lieu of or in addition to these options, the new line may need to acquire some of its own equipment to supply customers, which would be an additional capital expense. However, if the new operator does have its own equipment, it would also collect car hire for its railcar whenever it runs on another carrier's line.

9. Purchase Price –Without an inspection of the line, there is no clear NLV for the line. The NLV provided includes track that must be verified before a final price can be determined. In addition, typically, amounts for deferred maintenance may be negotiated to determine the final price.

10. Economics – For a new party to acquire and operate the line, debt service must be included to cover the acquisition costs, rehabilitation costs and possible equipment costs. This makes the line marginal with the existing traffic. Even though traffic is expected to pick up during the next 2 years and much can be done to bring back to rail much of the traffic that was diverted to truck, it still poses risk to a new operator to rely on "expected" traffic. It would be a more attractive project for a third party investor if the major shippers were willing to give traffic commitments. This would protect the 3PO in case of extended traffic

decreases, but still preserve the rail service for those shippers with expectations of traffic increases in the near future.

11. Funding for Purchase of Line – Numerous funding options appear to be available, both public and private. It would be difficult to speculate on the best options or package at this time with so many unanswered questions. Several shippers expressed their willingness to contribute capital, but no amounts or terms were discussed. A 3PO could contribute considerable capital since this would be its own business; however, no 3PO would commit or provide an amount without more information on condition of the track and how the interchanges would be handled. Contributions from these parties would greatly affect the amount needed from the state, and the sources sought for financing.

12. Regional Rail Authority – In order to get other parties involved and possibly even started at funding projects like this, the stakeholders might consider establishing a regional rail authority. This would be a non-profit quazi-public organization comprised of members from all stakeholders: relevant shippers, state, communities, economic development agencies, etc. Rights and responsibilities could be defined based on stake in the railroad (or railroads as a system). This entity would qualify for most of the loan and grant programs earmarked for public entities only, and take some of the burden off MaineDOT for owning and managing the facilities.

13. Timing of Transaction – This transaction could take anywhere from 6-12 months to complete. Communication with MMA will determine their level of cooperation, how quickly they want to move, and what concessions they are likely to make.

14. Long Term Concern – To purchase this line, one or more of the stakeholders will likely have to hold the debt and be responsible for the major capital expenses. MaineDOT will need to fully understand the commitment, capabilities and intentions of all other stakeholders to determine how this will be structured.

15. Northeast Service – Transit times in the northeast are excessive due to the multiple interchanges with short line railroads in the area. Working with other carriers, including MMA, Pan Am Railways, etc., to develop better service and transit times could be the goal, and a selling point for shippers to bring more traffic to rail.

Next Steps

A. Begin negotiations with MMA immediately to determine what plans, expectations and concessions they are willing to bring to the table.

B. Complete a thorough third party inspection of the line for its condition, deferred maintenance estimate and true inventory to be used in a detailed third party NLV.

C. Secure the financing to acquire the line.

D. Meet with potential 3PO's, open discussions and get a commitment on what they can contribute.

E. Meet with other connecting carriers to determine their intentions and what they can contribute.

F. Consolidate the efforts of shippers, counties and cities to determine stakeholders in this line, and what contributions can and should be made by each.

G. Prepare to challenge the abandonment with the STB.

Final Conclusion

The State of Maine will need to make a firm decision on how badly it wants to preserve rail service. This is likely the last chance to preserve the rail service for this area, as once a line is abandoned, it will likely never be reclaimed. The State and the region need to determine and compare the costs of losing rail service in the area now and for the future.

If the State makes the final decision to move forward with negotiations and acquisition of this line, it will need to be prepared to shoulder a substantial part if not all of the acquisition cost. There are many parties involved who are prime candidates for contributing significant capital to this project in order to protect their own interests. These contributions would need to be formalized into a true Public Private Partnership to outline the rights and responsibilities of each party.