

GISBORNE TO NAPIER COASTAL SHIPPING STUDY

FOR EASTLAND INFRASTRUCTURE

Revision 1 – March 2010

BY WARWICK WALBRAN CONSULTING LTD
IN ASSOCIATION WITH PACIFIC MARINE MANAGEMENT LTD



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1 **CONFIDENTIAL INFORMATION**

This report uses commercially sensitive information provided to the researcher in confidence. As a consequence, sections 4.1 FORESTRY FREIGHT; 4.2 OTHER FREIGHT; 4.3 IDENTIFY PRODUCTS THAT COULD BE TRANSPORTED ON A COASTAL VESSEL – CONFIDENTIAL; 5 POTENTIAL COASTAL SHIPPING SERVICE – CONFIDENTIAL; 6.3 RAIL COSTS; APPENDIX A: EVALUATION; APPENDIX B: CARGO VOLUMES; and APPENDIX C: SHIPPING MODEL have been excluded from the report.

2 EXECUTIVE SUMMARY

Freight transport to/from Gisborne (and in particular the Gisborne - Napier segment) has been a topic of discussion and concern for some time. The road link (State Highway Two) has significant lengths that have high grades, low speed curves, a relatively narrow carriageway and very limited passing opportunities.

In recent years there has been talk of discontinuing the Gisborne - Napier rail freight service. Transfund (one of the NZTA's predecessors) paid a subsidy¹ to the then rail operator to retain the rail service. The primary driver of the economic justification for that subsidy was an expected large increase in forestry harvests in the near future, with a consequential large increase in both logs and forestry product that would need to be transported out of the region.

Eastland Infrastructure Ltd (the operators of Eastland Port at Gisborne), Port of Napier Ltd, and Winstone Pulp International Ltd made application to NZTA for funding for an investigation into the viability of a coastal shipping service. NZTA approved funding for the investigation and, as is normal, required that it consider all viable modes of transport (in this case road, rail and coastal shipping). This report is the culmination of that investigation.

The investigation of potential freight generators revealed that forestry product is by far the dominant freight, and that forestry's dominance is expected to increase in the foreseeable future. Gisborne's other industries do generate a requirement for freight transport, but quantities are an order of magnitude less than the quantities associated with the forestry industry.

Consideration of shipping characteristics lead us to exclude non containerised freight from the pool of freight potentially available for a coastal vessel linking Gisborne with Napier and/or Tauranga. Breakbulk ships are generally small enough to call at Gisborne and we find it difficult to imagine a scenario where they wouldn't do so in the normal course of trade. If there is enough cargo to justify a breakbulk carrier, it would call at the nearest port to the cargo. If the volumes available at Gisborne were small, the operational economics could mean that the extra port call would be avoided. A feeder ship that carries breakbulk and containers would be a less efficient carrier than one that carries containers only.

¹ The Transfund subsidy for the Gisborne-Napier rail service was for 2003/04 only. The resolution stated that Transfund would purchase the Alternative to Roding benefits earned by rail freight between Gisborne and Napier of approx \$168,000. Hawke's Bay regional Council and Gisborne District Council were expected to contribute \$52,000 each for the same period. NZTA records the claim in TAPS for the subsidy was \$154k. NZTA has no evidence concerning payment of Hawke's Bay Regional Council and Gisborne District Council contributions.

An existing shipping cost model was revised and updated to arrive at current coastal shipping costs. The model confirmed our intuitive understanding that shipping via Tauranga was not attractive. All foreign destinations can be provided from Napier either as a direct service, or via transshipment. The domestic shipping leg (Gisborne to Napier or Tauranga) is more costly to Tauranga, because the sea distance to Tauranga is more than double the sea distance to Napier.

Enquiries were made to road transport operators and to KiwiRail regarding current freight rates for full containers from Gisborne to Napier, and empty containers on the return leg.

The freight transport costs from factory gate Gisborne to stack at Port of Napier by the three modes have been determined as:

Gisborne - Napier Container Freight Rates (Return Trip)			
	Road	Rail	Coastal
If all freight attracted – Low Volumes			
20 foot	\$650	\$777	\$708
40 foot	\$1,300	\$1,140	\$1,169
If all freight attracted – High Volumes			
20 foot	\$650	\$777	\$621
40 foot	\$1,300	\$1,140	\$994
If reduced freight (70% HFF and 50% other freight) attracted – Low Volumes			
20 foot	\$650	\$777	\$762
40 foot	\$1,300	\$1,140	\$1278
If reduced freight (70% HFF and 50% other freight) attracted – High Volumes			
20 foot	\$650	\$777	\$695
40 foot	\$1,300	\$1,140	\$944

The road leg in the above table allows for transport of the product from factory gate to Eastland port. The above costs exclude loading at the consignors yard. It has been assumed that JNL can load to rail at the siding in the adjoining Ravensdown site. No cost has been included for accessing the Ravensdown siding.

Clearly coastal shipping has a cost advantage for forty foot containers once Hikurangi Forest Farms (HFF) ramp up to full production. Whether this cost advantage translates into a market advantage will depend upon freight owners/consignors perception of risk. Service reliability is a key issue. Exporters need to be confident that the domestic leg of the export journey will connect reliably with the international leg.

The above costs represent current market costs from road and rail, the nature of any competitive response by those modes to the introduction of a new freight mode (coastal shipping) from these existing providers cannot be predicted, but we can reasonably expect that there will be a competitive response. There is a perception in the market place that rail has the ability to price beneath the cost of the competing freight mode (which is usually road transport). If the perception is accurate, rail may have the ability to undercut coastal shipping in a similar manner. This possibility arises from the lack of transparency around rail pricing and remains a significant threat to the establishment of a coastal shipping operation.

Road transport is understood to be a highly competitive mode, with reasonably transparent costs. Road transport is unlikely to be able to respond to the introduction of a coastal shipping service by reducing its freight charges in the medium to long term.

However road transport has responded in the past in this region to a concerted effort by rail to capture market share by dropping rates. It has been suggested that at the reduced rates road transport was only recovering its cash costs, i.e. making no return on capital or depreciation charges. While such a response could be mounted again in the short term, it would not be commercially sustainable in the longer term.

Establishment of a coastal shipping service between Gisborne and Napier would make a positive contribution to and/or be consistent with all relevant strategies. A move to establish a coastal shipping service would be a commercial decision, with no subsidy from the Government sought.

The economic analysis has revealed that establishment of a coastal shipping service, or movement of substantial freight volumes to rail would have substantial national economic benefits, with establishment of coastal shipping having more benefits than a move to rail. The table below summarises the results of the economic analysis.

National Economic Benefits (millions)			
	Social Benefits		
	Rail over road	Coastal over Road	Coastal over Rail
Net Present Value			
Accidents	\$8.72	\$14.44	\$5.72
Travel time savings/congestion	\$22.81	\$22.81	\$0
CO ₂	\$5.18	\$5.84	\$0.67
Particulates	\$1.06	\$0.55	-\$0.52
TOTAL	\$37.77	\$43.64	\$5.87

Accident benefits arise from removing trucks from the road network. Rail has accidents costs associated with level crossing accidents.

Travel time/congestion savings arise from other road network users not being delayed behind slower moving heavy trucks.

The negative particulate benefits associated with coastal shipping relative to rail reflect the need to move freight from the various producers through the Gisborne urban area to the Eastland port. Increasing use of low sulphur fuels may reduce the particulate costs associated with freight movements in future.

The national economic benefits are primarily improved travel conditions (ie not getting delayed behind trucks) for other traffic using State Highway Two between Gisborne and Napier.

In addition to the national economic benefits there is a fiscal benefit to government from the reduced road maintenance costs exceeding the loss of income from lost RUC by almost \$45 million (in excess of \$14.5 million NPV).

Where to from here?

1. The two port companies should consider this report, and decide whether they wish to actively pursue establishment of a coastal shipping service between Gisborne and Napier; and
2. If they do so wish, an early step will be to decide whether they want to be the vessel operator, or whether they wish to encourage a specialist shipping company to establish and operate the service.

The table below summarises the relative strategic merits of the three modes.

Strategic Factor	Modes		
	Road	Rail	Coastal
Competitiveness	Low barriers to entry, competitive	Very high barriers to entry	High barriers to entry (cost risk)
	From a national perspective modal competition increases competitive tension and reduces supply chain costs to users. However the volume of potentially available freight is finite, and may not be sufficient to support three modes		
Responsiveness	Very flexible	Not flexible (high fixed cost – mostly sunk cost)	Moderately flexible because of the ability to lease a vessel.
Commercially sustainable	Yes, under current charging regime	Uncertain, may not be	Yes
Sustainability (total cost)²	No	Partially	Probably
Network resilience to lifelines events	Vulnerable	Vulnerable	Largely resilient
Ability to cater for increased demand	Yes	Partial, axle weight restrictions. Not likely to become critical in the near future.	Yes

²  Subsidy – the rail industry receives various payments from central government. Most of these payments relate to passenger services, and particularly to urban passenger services. At present, there are some significant payments that do relate to rail freight. However the 2005 Surface Transport Costs and Charges study revealed that the rail freight industry comes much closer than the road freight industry to meeting its full cost and receives substantially less indirect subsidy than the road freight industry. The STCC states:

- “Total system revenue is some \$432 million pa (including \$26 million public funding for the urban passenger services)”.
- “Total recurrent costs are \$331 million pa. An appropriate capital charge to refurbish/replace rolling stock to maintain broadly its present age and condition would add some \$64 million, giving total costs of \$395 million p.a”.
- “In the medium/long term, it will also be necessary to renew/replace selected infrastructure assets (e.g. track, signalling etc.). An appropriate capital charge on these assets (excluding land) is around \$100 million pa. This would increase total costs to \$493 million p.a.”

The study did not consider coastal shipping.

3 INTRODUCTION

Eastland Port Ltd (in conjunction with Port of Napier Ltd and WPI Ltd) have commissioned this Gisborne – Napier Coastal Shipping Link Investigation utilising funding provided by central government through the NZTA under the Domestic Sea Freight Fund. The scope of the study includes consideration of freight movements by road/rail/coastal vessel to/from Gisborne from/to both Napier and Tauranga.

3.1 BACKGROUND AND CONTEXT

Freight transport links to/from Gisborne and particularly between Gisborne and Napier have been the subject of attention for some time. Outbound freight volumes from Gisborne are expected to increase significantly in the foreseeable future. There has been talk for some years of the “wall of wood” (substantial increase in freight volumes resulting from substantial increase in forestry harvest) that is coming.

The road link between Gisborne and Napier (State Highway 2) is less than ideal. Significant portions of the route are narrow, and have both steep grades and low speed corners – leading to low travel speeds (particularly for freight vehicles) and very limited passing opportunities. The total road distance (Gisborne Port to Napier Port) is 220 km, 75km is classified as mountainous, 45km is classified as rolling and 100km is classified as flat. Maintenance costs on this route are reported to be high.

There is a rail link between Gisborne and Napier. Earlier this decade the then rail operator advised that the line was not financially viable, and would be closed unless significant third party funding could be found. Hawke’s Bay Regional Council made application to Transfund (one of the NZTA’s predecessors) for subsidy to retain the rail line. One of the primary drivers of the economic evaluation submitted in support of Hawke’s Bay Regional Council’s funding request was the “wall of wood” that was (and still is) expected. Transfund approved the funding application, subsidy was paid in 2003/04, and the rail service continued to operate, and still operates as this report is written.

KiwiRail are currently embarking on a marketing drive in Gisborne. They perceive untapped potential to increase the quantity of freight carried on rail, both now and in the near future.

There is some Gisborne pressure to discontinue the Gisborne-Napier rail service. Some sections of the Gisborne community would prefer that the rail service ceased to operate, that the tracks were removed, and the rail corridor be converted to a bike track to attract tourists to the area (not unlike the Central Otago Rail Trail).

WPI has looked at alternative (non road) means of transporting wood chip from its Prime mill in Gisborne to processing plants outside the region (Tangiwai and Kawerau). None of the alternatives examined have proved financially viable.

The two port companies (and in particular Port of Napier) have previously considered the viability of coastal shipping between Eastland Port and Port of Napier; including constructing a financial model of a potential coastal shipping service.

The local road network has recently been reconfigured in the vicinity of Eastland Port, to give easy road freight access to the port.

There are substantial signs that the “wall of wood” will materialise in the near future. Foremost among these is Hikurangi Forest Farms receiving consent for construction of a sizeable plywood mill in Gisborne, and starting site works for the mill. Trevor Helson, CEO Eastland Wood Council is quoted as saying re the Wall of Wood *"In the East Cape area it very definitely is happening. 18 months ago we were harvesting about 600K JAS per annum, this year we have exceeded 1M, within the next few years that figure will, subject of course to markets and the appropriate resources such as man power and infrastructure, be in the 3.4M JAS range. To us that is not the status quo. Every month for the last year or so has seen a constant and unrelenting growth in the harvest"*

3.2 PREVIOUS WORK

Much previous work has been undertaken. Some of it provided useful context for this study, other work was relied upon for input data to the development of key aspects of this study.

The draft *“Tairāwhiti Regional Development Plan (Gisborne and Wairoa Districts)”* April 2001 provides interesting background, as does the *“Tairāwhiti Development Partnership Strategic Economic Development”* of January 2009.

The *“Napier-Gisborne Rail Line - ATR Evaluation”* February 2003 for Hawke’s Bay Regional Council contained useful information on existing road traffic congestion. The consultants that undertook the work have kindly provided some of the key traffic survey data that allows the economic analysis of heavy vehicle congestion effects to be quantified.

Forestry harvest volumes have been obtained from the Ministry of Agriculture and Forestry publication *“East Coast Forest Industry and Wood Availability Forecasts”* dated October 2008. These forecasts have been a key input to the derivation of freight transport volumes used in this study. A working paper titled *“Gisborne – Napier Coastal Shipping Link Investigation, Working Paper, Volume Scenario and Decision*

Drivers” was produced in June 2009; key parts of this working paper are reproduced in this report for completeness.

Port of Napier commissioned a consultant to produce a financial model of a coastal shipping service.

4 EXPORT VOLUME FORECASTS AND KEY DRIVERS - PRODUCTS AND TIMELINES

Exports from the region are dominated by forestry exports. This domination will increase in the foreseeable future.

4.1 FORESTRY FREIGHT

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4.2 OTHER FREIGHT

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4.3 IDENTIFY PRODUCTS THAT COULD BE TRANSPORTED ON A COASTAL VESSEL - CONFIDENTIAL

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4.4 FREIGHT OWNERS/CONSIGNORS DECISION DRIVERS OF FREIGHT TRANSPORT MODE

The mode choice decision drivers vary between the freight owners/consignors. The three major forestry companies (Juken New Zealand, Prime (WPI) and Hikurangi Forest Farms) control the substantive majority of the current freight, and they are expected to become more dominant in the near future. The analysis of the decision drivers below is heavily weighted towards the views and attitudes of the major forestry companies; account is taken of the views of the other freight owners/consignors.

4.4.1 PRICE

All company representatives interviewed indicated that price is (not surprisingly) a major factor in the freight transport mode choice of all freight owners/consignors. This finding is at variance with findings of other national studies, where reliability and service rank well above price in selection of mode choice. If price was the major determinant of mode choice then logically (based on the table on Page 3), there would be only small volumes going by road whereas the majority goes by road. However the majority of freight goes by road which strongly suggests that quality of service, ease of supply chain management and risk may be significant in the freight mode decision.

4.4.2 DESTINATIONS

Napier and Tauranga are the desired destinations of the three major forestry companies. The analysis in Section 5 below demonstrates that all required/desired export destinations can be served via Napier, and doing so is considerably less costly than serving them via Tauranga.

A number of the non forestry operators transport minor quantities of freight to Auckland on a regular basis.

4.4.3 SERVICE FREQUENCY

Service frequency is not as critical to the three major forestry companies; their product does not deteriorate or perish in short periods of time. Reduced service increases the storage area required. Service frequency is an issue for some of the non forestry operators, with Barnard Matthews requiring a daily service.

4.4.4 SERVICE RELIABILITY

Service reliability is an issue for most operators. Exporters in general (and the three major forestry companies in particular) need to be confident that the domestic leg of the export journey will connect reliably with the international leg.

4.4.5 CONTAINER HANDLING CAPABILITY

The absence of container handling capability at Eastland Port is an issue for Juken New Zealand; however it does not influence their choice of transport mode.

Hikurangi Forest Farms (HFF) has advised that much of their product will be containerised. Their view re Eastland Port providing container handling facilities is that it is a small port, so will at best attract small ships, and with the current major ports attracting major container services HFF thinks it would be challenging to build a case for container handling facilities at Gisborne. However, HFF indicated that if there is an attractive service available they will use it.

Eastland Port has however investigated the establishment of container handling facilities at Gisborne and has found that there is no commercial case for them to do so.

Clearly containerisation, and in particular the establishment of container handling facilities at Eastland Port, is a topic of some interest to the commercial parties, and each have their view about the subject, however there appears to be commercial drivers which prohibit the establishment of container handling facilities at Gisborne; and most, if not all, of these drivers are outside of the control of the Port.

4.4.6 REFRIGERATION

Refrigeration is not required for forestry product. If a coastal shipping service that could accommodate refrigerated or chilled containers was available, some additional freight may be shipped. However the volumes that could be available are comparatively small - about 20,000 tonne pa.

4.5 VOLUME SCENARIO

From all the above a volume scenario has been developed from 2010 to 2039. The volume scenario is in the worksheet labelled “Data Inputs” in the economic evaluation in Appendix A: Evaluation.

5 POTENTIAL COASTAL SHIPPING SERVICE - CONFIDENTIAL

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6 EXISTING AND POTENTIAL RAIL SERVICE

The existing rail service between Gisborne and Napier currently operates weekly. It has operated more frequently in the recent past, and KiwiRail are presently directing marketing effort to Gisborne and hope to generate sufficient new business to operate the service more than once per week.

6.1 ADDITIONAL RAIL INFRASTRUCTURE REQUIRED

No significant additional infrastructure is anticipated.

6.2 CAPITAL AND MAINTENANCE COSTS

KiwiRail advise that minimal periodic maintenance is required on this line “a few tens of thousands”. This is at odds with print media reports of statements by KiwiRail staff and statements made by the previous rail operator.

The Gisborne Herald of 29 September 2009 reports KiwiRail as confirming that the Napier-Gisborne line is costing between \$2,300,000 and \$3,000,000 pa in maintenance and renewals. The Hawke’s Bay Rural Transportation Study (2005) reports the line as carrying about 60,000 tonne pa. These numbers indicate that the maintenance and renewal cost is between \$38 and \$50/tonne transported. These costs are the network (below rail) costs only, operational (above rail) costs are additional to these costs. For comparison current road transport costs are about \$45/tonne.

KiwiRail have been asked to provide long term sustainable freight rates, and have agreed to do so. These have not been received to date, and the report has had to be finalised in the absence of that information.

6.3 RAIL COSTS

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7 EXISTING AND POTENTIAL ROAD SERVICE

There are road freight operators offering service between Gisborne and Napier, and this situation is not expected to change.

7.1 ADDITIONAL ROAD INFRASTRUCTURE REQUIRED

This report has not attempted to identify specific infrastructure required for road freight. The approach taken has been to use the standard values for net cost savings to government (\$/EDA km) given in the EEM Vol 2 SP8 as representing the road maintenance and infrastructure costs associated with the road transport option.

7.2 ROAD TRANSPORT COSTS

Current road transport costs have been obtained from road transport operators. Road transport would charge about \$1,200 per return trip (2*20' containers; or 1*40' container) Gisborne-Napier-Gisborne.

8 FREIGHT COST COMPARISON

In summary the current freight rates to transport full containers from Gisborne to Port of Napier, including return of the empty containers to Gisborne for road and rail (and the anticipated rates for coastal shipping) are:

Gisborne - Napier Container Freight Rates (Return Trip)			
	Road	Rail	Coastal
If all freight attracted – Low Volumes			
20 foot	\$650	\$777	\$708
40 foot	\$1,300	\$1,140	\$1,169
If all freight attracted – High Volumes			
20 foot	\$650	\$777	\$621
40 foot	\$1,300	\$1,140	\$994
If reduced freight (70% HFF and 50% other freight) attracted – Low Volumes			
20 foot	\$650	\$777	\$762
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If reduced freight (70% HFF and 50% other freight) attracted – High Volumes			
20 foot	\$650	\$777	\$695
40 foot	\$1,300	\$1,140	\$944

The costs in the above table allow for transport of the product from factory gate to Eastland Port. The above costs exclude loading at the consignor's yard. It has been assumed that JNL can load to rail at the siding in the adjoining Ravensdown site. No cost has been included for accessing the Ravensdown siding.

Clearly coastal shipping has a cost advantage for forty foot containers once HFF ramp up to full production. Whether this cost advantage translates into a market advantage will depend upon freight owners/consignors perception of risk. Service reliability is a key issue. Exporters need to be confident that the domestic leg of the export journey will connect reliably with the international leg.

The above costs represent current market costs, they do not allow for any competitive response to the introduction of a new freight mode (coastal shipping). There is a perception in the market place that rail has the ability to price beneath the cost of the competing freight mode (which is usually road transport). If the perception is accurate, rail may have the ability to undercut coastal shipping in a similar manner. This possibility arises from the lack of transparency around rail pricing and remains a significant threat to the establishment of a coastal shipping operation.

Road transport is understood to be a highly competitive mode, with reasonably transparent costs. Road transport is unlikely to be able to respond to the introduction of a coastal shipping service by reducing its freight charges in the medium to long term.

However road transport has responded in the past in this region to a concerted effort by rail to capture market share by dropping rates. It has been suggested that at the reduced rates road transport was only recovering its cash costs, i.e. making no return on capital or depreciation charges. While such a response could be mounted again in the short term, it would not be commercially sustainable in the longer term.

9 THE PROPOSAL

The proposal is for a coastal service offering to transport containerised freight between Gisborne and Napier to be established. Just who would operate this service has not been established; however operation as a joint venture by the two port companies has not been ruled out.

9.1 SERVICE

The service would operate four or more return sailings per week, giving reasonable utilisation of the vessel. Vessel size would increase from 45m length overall in the first few years of operation to a 60m length overall vessel as the cargo volumes ramp up (expected to be in 2015).

9.2 INFRASTRUCTURE REQUIRED

No new infrastructure is expected to be required.

10 STRATEGIC CONTEXT

10.1 RELATIONSHIP TO GOVERNMENT POLICY STATEMENT ON LAND TRANSPORT FUNDING 2009/10 – 2018/19

The Government Policy Statement on Land Transport Funding 2009/10 – 2018/19 (GPS) sets out what central government wishes to achieve from its investment in land transport. The GPS includes:

“Of particular importance to this priority are:

- *investing in the State highway network, as a key to the efficient movement of freight and people*
- *generating better value for money from the government’s investment across all land transport activity classes and enhancing the economic efficiency of individual projects”*

The proposed Gisborne-Napier Coastal Shipping Service will reduce heavy traffic volumes on the section of SH2 between Gisborne and Napier, effectively increasing capacity on *“the State highway network”* and assist in the *“efficient movement of freight”* and Section 11.1 of this report demonstrates that such shipping service would generate significant benefits, effectively providing *“better value for money from the government’s investment”* in road freight transport infrastructure and to enhancing *“the economic efficiency of individual projects”*.

The GPS notes that *“Investing in the State highway network is important as there are significant constraints on its current capacity to efficiently move freight and people, leading to congestion in New Zealand’s major cities. Unless investment in State highways is addressed, congestion will continue to negatively impact on economic growth and productivity”*. The proposed Gisborne-Napier Coastal Shipping Service will ease some of this congestion (in the form of delays to other traffic following heavy trucks) on the Gisborne to Napier section of SH2.

The GPS includes *“In particular, more emphasis should be placed on the economic efficiency of individual projects”*. The economic efficiency of the proposed Gisborne-Napier Coastal Shipping Service is examined in section 11, which demonstrates that the project would generate significant benefits, at no direct cost to the public purse.

Transfer of the general cargo from road to coastal shipping will make significant contribution to increasing national economic growth and productivity – getting freight to market efficiently is critical to national economic growth and productivity. The proposed Gisborne-Napier Coastal Shipping Service will result in significant reductions in internal freight transport costs.

The GPS goes on to list “*other objectives*” which are:

- Assisting economic development
- Assisting safety and personal security
- Improving access and mobility
- Protecting and promoting public health
- Ensuring environmental sustainability.

These objectives are discussed in section 10.3 below.

The GPS sets out “*The specific impacts the government expects to be achieved through the use of the National Land Transport Fund*” which are

Impacts that contribute to economic growth and productivity

- *Improvements in the provision of infrastructure and services that enhance transport efficiency and lower the cost of transportation through:*
 - *improvements in journey time reliability* Journey time reliability is enhanced by reducing delays and frustration experienced when following heavy trucks.
 - *easing of severe congestion* Delays experienced when following heavy trucks are a form of congestion. Removing long distance heavy freight traffic from the Gisborne to Napier section of SH2 will ease congestion on that route.
 - *more efficient freight supply chains* The potential increase in efficiency in the freight supply chain is demonstrated in 8 above.
 - *better use of existing transport capacity.* The proposed project gives much better use of existing transport capacity (both fixed infrastructure capacity and truck capacity). The improvement in truck utilisation is reflected in section 8. The improvements in fixed infrastructure utilisation are partially demonstrated in the economic analysis.
- *Better access to markets, employment and areas that contribute to economic growth.* The proposed project substantially improves access to/from supply points, production points and markets, section 8 again demonstrates and quantifies the improvement.
- *A secure and resilient transport network.* The proposed project makes a significant contribution to a secure and resilient network as discussed in section 11.5 below.

Other impacts

- *Reductions in deaths and serious injuries as a result of road crashes.* The crash reduction benefits have been quantified in the economic analysis and are discussed in section 11.1.3 below.
- *More transport choices, particularly for those with limited access to a car where appropriate.* The proposed project has little or no effect on transport choices.
- *Reductions in adverse environmental effects from land transport.* The potential reduction in adverse environmental effects is significant. Some of the reduction is quantified in section 11.1.
- *Contributions to positive health outcomes.* The potential positive contribution to health outcomes is also substantial. Some of the reduction is quantified in section 11.1.4 below.

10.2 NZTA’S STRATEGIC INVESTMENT DIRECTION

NZTA’s Planning Programming and Funding Manual includes:

The NZTA’s strategic investment direction is developed from the GPS. It provides the background against which assessment of activities and combinations of activities is carried out.

Activity class	Increased priority for	Maintain focus on
<p>12 New and improved infrastructure for local roads</p> <p>13 New and improved infrastructure for state highways</p>	<p><i>Investment in state highways and local roads where greatest economic growth and productivity impacts can be achieved through:</i></p> <ul style="list-style-type: none"> • <i>Investing in Roads of National Significance (RONS) to improve access through, in and out of the major urban areas</i> • <i>Investing in key freight and tourism routes to lift productivity and improve access to markets</i> • <i>Investing in infrastructure on local road networks that support RONS.</i> 	<ul style="list-style-type: none"> • <i>Improving journey time reliability on key routes</i> • <i>Easing severe congestion</i> • <i>Better use of existing capacity</i> • <i>Increasing capacity on key routes</i> • <i>Reducing the risk and number of fatal and serious injuries</i> • <i>Reducing risk from natural hazard or other transport operations disruptions</i> • <i>Managing adverse environmental effects from land transport.</i>

The Gisborne-Napier Coastal Shipping Service would support **Investment in state highways and local roads where greatest economic growth and productivity impacts can be achieved** by removing heavy freight traffic from the traffic stream on the Gisborne to Napier section of SH2, which is (and becoming increasingly so) a **key freight route**, resulting in a consequential **productivity lift**. It would **improve journey time on the route**, **increase freight capacity** on a key freight route, **reduce the risk of truck related fatal and serious injuries**, **increase the resilience of the land transport network** between key centres of economic activity (Napier & Gisborne), and **reduce the adverse environmental effects of freight transport**.

The Gisborne-Napier Coastal Shipping Service would also make a significant contribution to **network security and resilience** (refer section 11.4 below) and **improve journey time reliability** on the route. It would also make a **contribution to economic growth on key freight routes and maximizes access to significant markets, areas of employment or economic growth** (Gisborne, Napier, and the export markets).

10.3 RELATIONSHIP TO THE LAND TRANSPORT MANAGEMENT ACT

10.3.1 OBJECTIVE – ASSISTING ECONOMIC DEVELOPMENT

Transport of containerised products (primarily forestry products) from Gisborne to Napier by coastal shipping or rail will assist economic development by:

- Removing traffic from the section of State Highway Two between Gisborne and Napier(resulting in reduced journey times and improved travel time reliability for other road traffic);and
- Removing some delays caused by slower truck and trailer units on curvilinear rural State Highways (also resulting in reduced journey times and improved travel time reliability for other road traffic).
- Removing structural loading from existing pavement infrastructure and thereby extending its useful life

Transporting containerised products efficiently to port is in itself a contribution to economic development. Work on previous commissions using input-output models has demonstrated that this activity will have a useful multiplier effect that will add not only to the economic performance of rail transport, forestry and port activities but will also flow on to other areas of the economy. These benefits have not been included in the economic evaluation.

The operation will contribute to the LTMA objectives by:

- improving the reliability of road journey times on critical routes; and
- reducing average road journey times on critical routes.

10.3.2 OBJECTIVE – ASSISTING SAFETY AND PERSONAL SECURITY

Transport of containerised products (primarily forestry products) from Gisborne to Napier by coastal shipping or rail will improve safety by:

- Removing of loaded truck and trailer units from the road will address both the real and the perceived safety risk associated with heavy vehicles operating in a mixed traffic environment.

The project will contribute to the LTMA objective by reducing the social cost of road crashes.

10.3.3 OBJECTIVE – ENSURING ENVIRONMENTAL SUSTAINABILITY

Transport of containerised products (primarily processed forestry products) from Gisborne to Napier by coastal shipping or rail will:

- Minimise the use of non-renewable fossil fuels, which will in turn minimise green house and other gas emissions resulting from the transport of the containerised freight. Note that coastal shipping achieves this objective to a greater degree than rail freight;
- Increase coastal shipping or rail share of the freight task,
- Reduce the noise impact of the transport operation
- Reduce the emission of particulates; and
- Reduce the deposition of other contaminants on the road surface attributable to the transport of containerised freight.

Transport of containerised product by coastal shipping or rail will contribute to the LTMA objectives by:

- reducing per capita greenhouse gas emissions from domestic transport; and
- Increasing coastal shipping's share of interregional freight.

10.3.4 OBJECTIVE - IMPROVING ACCESS AND MOBILITY

Transport of containerised products (primarily forestry products) from Gisborne to Napier by coastal shipping or rail will make a minor contribution to promoting cycling and walking. The route (SH2 between Gisborne and Napier) experiences minor use by touring cyclists. Removal of trucks can be expected to improve cyclists' perception of the routes.

Additionally the removal of trucks from sections of State Highways with relatively heavy pedestrian usage (i.e. through rural towns) can be expected to improve pedestrians' perception of the walking environment.

The removal of truck and trailer units from the route will improve access between Gisborne and Napier. This improves access to/from the leisure activities available in the Gisborne region and the educational, health, employment and leisure opportunities available in Napier.

10.3.5 OBJECTIVE – PROTECTING AND PROMOTING PUBLIC HEALTH

The operation is expected to contribute to the LTMA objectives by:

- reducing the number of people exposed to health endangering noise levels from land transport;
- reduce the number of people exposed to health endangering concentrations of air pollution in locations where the impact of land transport emissions is significant.

The detailed work required to confirm and quantify the proposals contribution to the LTMA public health objectives has not been undertaken.

10.4 NEW ZEALAND ENERGY EFFICIENCY AND CONSERVATION STRATEGY – OCTOBER 2007

The proposal will make a contribution to achieving the outcomes desired by contributing to the high level target of reducing the overall energy use and greenhouse gas emissions from New Zealand’s transport system (high level target clause 1.5) and the more detailed target in chapter 4 of halving the per capita greenhouse gas emissions by 2040.

10.5 RELATIONSHIP TO REGIONAL LAND TRANSPORT STRATEGIES

10.5.1 GISBORNE REGIONAL LAND TRANSPORT STRATEGY

The Regional Land Transport Strategy for Gisborne includes

Key Issues, Section 6.1: - *Enhancing multi-modal transport opportunities, and modal shift to, rail, and coastal shipping*’;

Section 6.2.1 - *Economic Development and Rail*

When the RLTS was drafted, economic development received the most attention from both those consulted and the RLTC. In 2006 one of the main discussions centred on the role the rail network plays in the economic development of the District. There was a viewpoint from many that the rail network could not meet the timeframes of some exporters in the region. Many need their goods to get to markets within very short timeframes. The rail network remains not set up to cater for those exporters who have perishable goods. The rolling stock cannot provide the temperature management

requirements that are needed for many of the export producers in the Gisborne Region.

The rail network must also overcome issues of double handling of goods which affects cost efficiencies and also add time delays for distribution. It was agreed that despite these obstacles, rail needs to be recognised as an alternative to other modes. It is a mode that is increasingly important for the tourism focus of the region. With the recent amendments to the LTMA and development of the new NTS and GPS, the emphasis on rail together with coastal shipping as an alternative mode to road for the movement of freight and goods has been given much greater prominence. Specific targets set by the GPS in respect of 'shift' of goods and freight to rail and coastal shipping will need to be achieved.

There also needs to be work done on the weaknesses of the system in efficiently handling goods so that a mix of commodities using the service can be achieved. The Committee recognised that it is a key part of the land transport strategy for the region but that further information was required on the likely cost of the infrastructure upgrade that is required to keep the line viable.

The other key issue relating to economic development was the state of the roads within the district. While the Council commits a large proportion of its rating budget to maintenance and upgrade of the roads the RLTC believed that this issue was one of the most fundamental to the economic development of the region. Despite the heavy investment by Council and Transit New Zealand the state of the roads is still of concern to the RLTC and with the forecast increase in forestry the issue will be magnified. The Committee were of the opinion that the current geometric status of SH35 is unsuitable for the current and predicted logging growth, and combined with the expected increase in tourism traffic, this unsuitability may become unacceptable from a traffic safety perspective particularly as both increase in volume and numbers.

And

The forestry industry is very much seen as the major player in supporting the economic sustainability of the region. Recognised industry predictions show timber harvest rates to be between 2,500,000 and 3,000,000 tonnes per annum and will continue at this level on a sustainable basis through to 2026. Up to 1,000,000 tonnes per annum are likely to take the form of bulk log exports with the remaining volume being processed in the district. All of this resource will be exported and will rely on good transport services. The port was identified in consultation as a vital transport link for the region, and it was stated that recognition of the port and its servicing requirements needs to be at the forefront of all regional policy, be it land use or transportation planning.

And

Summary of Issues – Economic Development

- Encouragement for the use of rail transport for the movement of freight.*
- Importance of forestry to the regions economy.*
- Port identified as a vital transport link.*

Section 6.2.3 includes - *access to rail freight services is seen as important and desirable by a number of stakeholders. Others have expressed the opinion that the money that would need to be spent on rail would be better utilised on improving the state of road transport in the Region.*

Summary of Issues – Access and Mobility

- *Access to rail freight services.*

And

Section 7.2 Freight Traffic – Road and Rail

As with most areas in New Zealand much of Gisborne's economy is affected by the efficient movement of goods. Gisborne has a particular dependence on its State highway network to shift goods in to, out of, and around the region. In contrast the rail network (a single track to Napier via Wairoa) is not widely used for moving freight. Although there is a rail line available for some trips the majority of freight movement through the region is undertaken on roads, mostly state highway. There are currently issues in the region surrounding the use of the state highway for transporting freight.

These issues are already well understood within the region. Many of the parties consulted wished to see further reliance on rail freight to reduce the negative impacts of road freight traffic. This strategy identifies this as an option, but its viability is unknown at this stage.

It is interesting to note that although there seems to be a commitment to retaining the existing network and maximising its use for freight, the future of the Napier – Gisborne line is in question. A Dominion Post article (Nov 25 2005) stated that the fall in freight use of the line could see the line closed within two years. The article sited a 6-12 fold increase in freight by rail would be required to make the line viable. The line is currently used for one return trip each day³. Ontrack have committed to keeping the line operative and will review the line if or as demand increases.

The Hawke's Bay Regional Land Transport Strategy (2008) also recognises the importance of retaining options for rail as an alternative transport mode particularly in regard to freight rail.

The strategy identifies the improved focus on the maintenance and improvement of the rail network as an issue for improving rail usage. The rail network has not been maintained at a high level for a number of years. However, recent Government policy coupled with the creation of KiwiRail indicates a greatly increased focus on this maintenance and of developing the rail network to modern standards. Before major investment can be made it is necessary to determine more clearly the long term role and potential of the rail network. Forestry companies on the East Coast, for example, have indicated that rail is not presently a favoured transport option for forestry.

And

³ The line is currently used for one return trip weekly.

7.7 Port

The Gisborne Port is a key node within the land transport network within the Gisborne Region which operates at the mouth of the Tauranganui River within a harbour.

Eastland Port Limited is the company that owns and operates the port situated at Gisborne on the North Eastern corner of Poverty Bay on the East Coast of New Zealand's North Island.

Significant quantities of produce and bulk raw materials pass through the port linking the region with other parts of New Zealand and the rest of the world.

Eastland Port plays an important role in the economic prosperity of the Gisborne / East Coast region. Eastland Port is strategically located on the main North / South shipping route on the east coast of the North Island, New Zealand.

“The port has two international wharves (seven and eight), which have a combined length of 363 metres. These are general-purpose berths, which are utilised for container shipments. Container or container capable vessels can either be self-contained with cranes for the discharge and loading of containers, or alternatively shore based mobile cranes can be utilised.”

Open and uninterrupted access to the port for road bound vehicles is vital to its success as a method of transporting goods into and out of the region. Access should not be a limiting factor on the throughput of the port. Given the nature of the vehicles accessing the port (including large, heavy goods and forestry trucks) it's important to secure a route that will not adversely impact on the operation of the rest of the network or the community as a whole. At the current time it is proposed to upgrade the Hirini Street access as a matter of priority. However a potential longer term plan is a dedicated haul road via from the Sponge Bay Road / Rifle Range area, via Kaiti Beach Road (discussed in the Ministry of Economic Development “Report on Integrated Transportation Strategy - Volume 1 of 4: Recommended Scenario.” Published in November 2005.

And

Section 8.3 The Role of Rail

The existing rail line running between Napier and Gisborne provides land transport opportunities, both present and future. At present the rail line plays a role in the movement of some bulk goods items such as fertilizer.

Previous studies have shown that annual rail freight cartage is in the order of 43,000 tonnes per year. Approximately 27,000 tonnes per annum is fertiliser; the remainder is a mixture of general freight.

As an example if services were discontinued, the above freight tonnage would equate to between 5-8 laden logging trucks per day, 312 days per year. This increase in road

usage is likely to be accommodated on the existing state highway network, increasing road wear and potential safety issues.

Currently rail is not used to transport logs from the region. This is due to a number of issues including lack of suitable rail carts, required double handling of logs and increased costs.

In 2001 the then freight operator TranzRail said that “In its present condition the Gisborne line would be able to carry ...600 tonnes per trip (about half normal capacity for a line of this type in good repair). This is the equivalent of about 21 conventional logging trucks per trip.”

This would not provide any benefit for the area north of Gisborne where much of the forestry activity occurs. The benefit of using rail also assumes an existing demand to move logs between Gisborne, Wairoa and Napier.

Transferring Gisborne – Napier container freight from road to coastal shipping or rail would advance the policies and objectives of the Gisborne District Regional Land Transport Strategy 2006 – 2016.

10.5.2 HAWKE’S BAY REGIONAL LAND TRANSPORT STRATEGY

The Hawke’s Bay Regional Land Transport Strategy 2008 – 2018 includes:

“6.1.3 Improved Access to and From the Port of Napier

Access to and from the Port of Napier for freight traffic is critical to the economic viability of the region. The Port of Napier currently loads 3 million tonnes a year. Maintaining and improving the access is therefore important.

(a) Objective

To provide for congestion-free freight movement to and from the Port of Napier via the Hawke’s Bay Expressway while also increasing the use of the existing rail link.

(b) Policies

- *Provide routes for freight vehicles accessing the Port of Napier that are convenient, safe and environmentally sustainable.*
- *Encourage the maximisation of the use”*

Clearly transferring Gisborne – Napier container freight from road to coastal shipping or rail would align well with the objective and policy above.

The Hawke’s Bay Regional Land Transport Strategy 2008 – 2018 also includes:

“6.1.5 Security of Rail Network

The ongoing use and availability of the rail network is important for the economy of the region. In particular, access to the Port of Napier is essential, and rail access north of Napier to Gisborne provides an alternative access to the State Highway

network in case of emergencies. Retaining the rail access through the region remains important.

(a) Objective

To ensure the retention of the rail line from Napier to Gisborne by increasing the level of rail freight operations from the current once a day service, and by attracting tourist and rail enthusiast trains.

(b) Policies

- Advocate for the continuation of rail access to the Port of Napier and north towards Gisborne.”

Transferring Gisborne – Napier container freight from road to rail would align well with the objective and policy above.

Transferring Gisborne – Napier container freight from road to coastal shipping or rail would advance the policies and objectives of the Hawke’s Bay Regional Land Transport Strategy 2008 – 2018.

10.6 STRATEGIC SUMMARY

The table below summarises the relative strategic merits of the three modes.

Strategic Factor	Modes		
	Road	Rail	Coastal
Competitiveness	Low barriers to entry, highly competitive	Very high barriers to entry	High barriers to entry (cost risk)
	From a national perspective modal competition increases competitive tension and reduces supply chain costs to users. However the volume of potentially available freight is finite, and may not be sufficient to support three modes		
Responsiveness	Very flexible	Not flexible (high fixed cost – mostly sunk cost)	Moderately flexible because of the ability to lease a vessel.
Commercially sustainable	Yes, under current charging regime	Uncertain, may not be	Yes
Sustainability (total cost) ⁴	No	Partially	Probably

⁴ The Surface Transport Charges and Costs (STCC) study found that trucks meet 36% (or 56% of their social costs if non recoverable assets are excluded) of their social costs (STCC Fig 3.2), and rail meets about 82% of its total costs (charges of \$328 million and costs of \$400 million (*An economic return at 7% on the depreciated value of the recoverable assets (excluding land) would involve a further \$113 million, giving a total of \$400* – STCC 3.2.4.2)). The study did not consider coastal shipping.

Network resilience to lifelines events	Vulnerable	Vulnerable	Largely resilient
Ability to cater for increased demand	Yes	Partial, axle weight restrictions. Not likely to become critical in the near future.	Yes

11 ECONOMIC ANALYSIS - METHODOLOGY AND RESULTS

11.1 BENEFITS

Benefits arise from running fewer trucks on the section of State Highway 2 between Gisborne and Napier. There are Travel Time and Congestion benefits, Carbon Dioxide benefits, Accident benefits, and Particulate (health) benefits.

11.1.1 TRAVEL TIME AND CONGESTION

Travel time benefits arise from fewer trucks on the route resulting in improved travel time for the remaining road traffic. Traffic remaining on the route will spend less time travelling at slower than their desired speed as a result of being behind a slower moving heavy vehicle and travelling at that slower speed until a passing opportunity presents itself.

In early 2003 Hawke's Bay Regional Council commissioned a report on the road user benefits of retaining the existing rail branch line to Gisborne. The resulting economic analysis included a methodology for quantifying the road user Travel Time and Congestion benefits that would arise from retention of the rail line. Transfund staff reviewed this economic evaluation, and the methodology for quantifying the road user Travel Time and Congestion benefits was accepted by Transfund. While there have been changes to the requirements for economic evaluation since 2003, none of the changes would invalidate the methodology.

This evaluation uses the basic methodology of that earlier work, and the results of the travel speed surveys undertaken at that time, and updates it for current traffic volume and unit values.

The evaluation shows that Travel Time and Congestion benefits of transferring the containerised freight traffic to rail or coastal shipping are substantial at \$22.8 million (NPV).

11.1.2 CARBON DIOXIDE

Central government has estimated the carbon dioxide emissions of the three transport nodes (Sea Change page 10) as:

Road Freight	92 grams per tonne kilometre
Rail Freight	22.8 grams per tonne kilometre
Coastal Shipping	13.9 grams per tonne kilometre

These values are averages across New Zealand. The Gisborne Napier section of SH 2 contains a higher proportion of steep gradients and/or low radius curves than is typical. These factors would increase the carbon dioxide emissions from road transport above the typical figures quoted above.

The calculation of carbon dioxide emissions used in this economic evaluation is based on the typical figures above (and therefore under estimates the carbon dioxide emissions from road freight). The mass of carbon dioxide produced is converted to an economic cost using the standard value of \$40/tonne (2004 dollars) given in clause A9.6 of EEM Vol 1.

11.1.3 ACCIDENT COSTS

The road user accident cost of all three transport modes has been calculated by standard methods in EEM Vol 1 Appendix 6. An accident rate analysis has been used for road freight, and for the road freight leg of the coastal shipping option.

Road user accident costs of rail freight are accidents at railway level crossings. The accident rate method given in EEM Vol 1 appendix 6 has been used. An initial identification of all rail level crossings and the associated control type was made from Google Earth. Confirmation that all rail level crossings had been identified was sought and obtained from the roading engineer in each of the four district or unitary authorities involved. The roading engineers were also asked for, and provided from road controlling authority records, details of the traffic volumes at each of the level crossing. Traffic volumes at these rail level crossings was assumed to grow at the default traffic growth rates in the EEM.

The results obtained are that rail freight has an accident benefit relative to road freight of \$8.7 million (NPV) and coastal shipping has an accident benefit over road freight of \$14.4 million, and an accident benefit over rail freight of \$5.7 million.

11.1.4 PARTICULATE IMPACTS

Diesel engine exhausts emit fine carbon particles that can have an adverse effect on human health. Particulate impacts are taken into account for heavy diesel vehicles in urban areas. Transport of freight between Gisborne and Napier involves relatively minor amounts of travel in urban areas.

For road freight the urban travel portion is 1.8 km through Wairoa and 6km through Napier. Rail does not have a heavy diesel vehicle component. Coastal shipping has a 3.8 km urban area heavy diesel vehicle component (from the timber processing mills in Dunstan/MacDonald Roads to Eastland Port and return).

The economic impact of particulate emissions has been quantified in accordance with EEM Vol 1 clause A9.4. Coastal shipping has net benefits of \$0.5 Million (NPV); and Rail freight has a net benefit over road freight of \$1.1 million (NPV), and a net benefit over coastal shipping of \$0.5 million (NPV).

11.2 COSTS TO GOVERNMENT

11.2.1 SUBSIDY

A move to establish a coastal shipping service would be a commercial decision, with no subsidy from the Government sought.

11.2.2 ROAD USER CHARGES

If containerised freight transport from Gisborne to Napier is to move to rail or coastal shipping government will forgo road charges of \$44.5 million (NPV) for rail; or \$44.1 million (NPV) for coastal shipping.

11.2.3 ROAD MAINTENANCE AND CAPITAL COST SAVINGS

Government cost savings in road maintenance savings and capital expenditure delayed or avoided have been calculated by the standard methods in the EEM Vol 2 page 13-14.

If containerised freight transport from Gisborne to Napier is to move to rail government will save \$60 .4 million (NPV).

If containerised freight transport from Gisborne to Napier is to move to coastal shipping government will save \$58.7 million (NPV).

11.3 DISBENEFITS

No disbenefits from moving freight transport from road to rail or coastal shipping have been identified.

11.4 OTHER IMPACTS

No other impacts from moving freight transport from road to rail or coastal shipping have been identified.

11.5 NATIONAL STRATEGIC FACTORS

National Strategic Factors have been identified by this study.

The forestry harvest anticipated in the Gisborne region and subsequent forestry product that will be produced in Gisborne (primarily for the export market) will be a significant component of the national economy.

The Gisborne-Napier Coastal Shipping Service will provide increased robustness/connectivity of the transport network. That networks with a greater number of interconnections are more robust than networks with a fewer number of interconnections is well known. New Zealand's road network is not well interconnected or robust in terms of its connections to Gisborne, with limitations which relate to the linear nature of the topography and geology between Napier and Gisborne. The rail network has no interconnection to Gisborne, and closure of the rail line is a subject that is aired from time to time.

The robustness of lifelines is a subset of this interconnectedness. There are a great many lifelines type events that could and almost certainly will at some point in time disrupt the nation's transport system. To illustrate the point consider a scenario involving a major storm event in the region (such as cyclone Bola). It is likely that land transport between Gisborne and Napier would be interrupted for a significant period of time. In the absence of a coastal shipping link, such an event would result in a very substantive reduction in freight transport capacity, a consequential reduction in

exports, with an extremely serious medium term negative effect on the regional economy.

Establishment of the Gisborne-Napier Coastal Shipping Service would largely avoid the substantive reduction in regional freight transport capacity, and avoid the consequential extremely serious medium term negative effect on the regional economy.

Quantifying these effects is beyond the scope of this study; techniques for doing so are only now emerging and are not yet widely accepted. However it is interesting to note that Greater Wellington (Wellington Regional Council), with some involvement/guidance from the Wellington Lifelines Group, recently obtained an economic assessment of a proposal to reduce the restoration period for bulk water supply following a major seismic event in Wellington. That assessment quantified the present value of the benefits as between \$200M and \$600M. Intuitively, it would appear that the benefits of maintaining a high capacity freight link between Gisborne and Napier could be of a similar order.

These National Strategic Factors have not been accounted for in the economic analysis, but they are none-the-less real; and should recognised and taken account of by decision makers.

11.6 EQUITY IMPACTS

No equity impacts from moving freight transport from road to rail or coastal shipping have been identified.

12 CONFIRMATION THAT THE ROADING ALTERNATIVE IS NOT CONSTRAINED BY THE REGIONAL LAND TRANSPORT STRATEGY

We confirm that the roading alternative is not constrained by the Regional Land Transport Strategy (RLTS) of Hawke's Bay Regional Council.

13 NEXT STEPS

The two port companies should consider this report, and decide whether they wish to actively pursue establishment of a coastal shipping service between Gisborne and Napier.

If they do, an early step will be to decide whether they want to be the vessel operator, or whether they wish to encourage a specialist shipping company to establish the service.

APPENDICES

APPENDIX A: EVALUATION - CONFIDENTIAL

APPENDIX B: CARGO VOLUMES - CONFIDENTIAL

APPENDIX C: SHIPPING MODEL - CONFIDENTIAL