

Report to Upper North Island Strategic Alliance Chief Executives Opportunities for Transport

September 2011

Executive Summary

The draft Upper North Island Strategic Alliance (UNISA) agreement identifies transport linkages as an initial focus for inter-regional collaboration. Transport is a key factor in improving productivity, competitiveness and enabling growth and development.

Optimisation of the Upper North Island (UNI) transport system supports the UNISA overall objective which is "to work together to maximise sustainable development opportunities for all of the UNI and its contribution to New Zealand". This optimisation of the transport system can be achieved in two ways - by making it more cost efficient and sustainable to either import/export goods; or to move goods intra or inter-regionally. A focus on both is needed.

This paper outlines the national and inter-regional significance of transport in the UNI, key drivers for UNISA collaboration, and identifies strategic opportunities for UNISA to advance an improved UNI transport system. This briefing paper has been prepared for the UNISA partners by Waikato Regional Council with support from these partners, in particular Hamilton City Council and the NZ Transport Agency.

It is recommended that UNISA develop a common agreed vision and outcomes that can enable a strategic framework for action to achieve an integrated high performing UNI transport system.

1. Recommendations

It is recommended that the UNISA:

- a. Agree to work towards developing an integrated UNI transport vision that can be championed by UNISA, and
- b. Agree to identify common transport outcomes and develop a work programme(s) for UNISA, based on identified UNI strategic opportunities that can maximise these outcomes through an integrated high performing transport system.

2. Background

2.1. Scope

This paper considers all land transport components in the UNI area with a particular focus on transport networks and freight.

An efficient, safe and effective transport system is critical for the UNI to achieve sustained economic growth and to enable New Zealand to compete internationally. Transport is therefore fundamental to the other three UNISA first order priority focus areas (economic development, ports and tourism).

2.2. National significance of the UNI

New Zealand's future ability to compete globally relies to a large extent on the productivity of the UNI:

- The UNI produces just over half of New Zealand's GDP (2011).
- The UNI area is home to more than 50% of the national population (2010).
- While only comprising approximately 21% of the NZ land area, the UNI area has around 34% of the national roading network and around 36% of the national State Highway (SH) network.
- The UNI has 56% of total freight movements in NZ amounting to around 126 million tonnes per year.
- The Auckland to Tauranga rail line is the busiest line in the country with between 350 and 400 train movements per week and carries 8 million tonnes per year (50% of total national rail freight).

- Significant international transport infrastructure is located in the UNI area (e.g. three of four national sea ports with import/exports greater than 5 million tonnes).
- The Government is investing more than \$1 billion a year for transport in Auckland. Between 2009 and 2012 the four regions making up UNISA received 63% of total government transport funding and 75% of total national funding for new and improved infrastructure for state highways (SHs).

2.3. UNI Transport Stock take

A stock take of UNI transport infrastructure by transport mode is summarised below and is illustrated in Appendix 1.

2.4. UNI transport infrastructure

2.4.1. Road

- The UNI roading network provides access to and from air and sea ports (freight imports/exports, access to employment, goods and services).
- Five of the seven Roads of National Significance (RONs) are located within the UNI. Two of four possible future RONs are proposed within this area.
- Deaths and serious injuries in the UNI account for approximately 47% of the total NZ transport injury related social costs (with the majority in the Auckland and Waikato regions).
- The UNI area accounted for approximately 57% of public transport bus service investment over the last three years.

2.4.2. Rail

- Freight generates more than 75% of KiwiRail's revenue (bulk commodities, import-export goods and domestic freight). Rail use for freight movement is predicted to increase by 70 % over the next 20 years.
- The KiwiRail Turnaround Plan (2010) identifies Auckland – Hamilton – Tauranga as a key route for targeted investment to reduce journey times and improve service reliability.
- Auckland to Tauranga is the country's busiest rail freight route (between 350 and 400 train movements per week and carries 8 million tonnes per year) and 40% of freight moving to and from the Port of Tauranga travels by rail (2009). In Northland a proposed Oakleigh to Marsden Point rail link will connect the deepwater Marsden Point port with the North Auckland line. Waikato Joint Official Group funding on the ECMT will create 10 passing loops which will double train carrying capacity.
- The KiwiRail Turnaround Plan also seeks to target investment on the North Island Main Trunk which passes through the Waikato and Auckland regions.

2.4.3. Air

- In the UNI there are three international airports (Auckland with full services and Hamilton and Rotorua with limited services) and five domestic airports (Kaitaia, Kerikeri, Whangarei, Whakatane and Tauranga) with scheduled air services in the UNI.
- A collaborative study is underway (2011/12) investigating the connection between Auckland International Airport (AIA) and the city centre and south, with a likely outcome being long term route protection for a rapid public transport route. AIA has resource consents for a second runway.
- Hamilton International Airport, adjacent to Titanium Park (a consented business park) has planning approvals to enable international flights beyond Australia. Tauranga airport's master plan does not provide for international services in the next 20 to 25 years. Rotorua is planning for an airport/runway extension to increase international visitor arrivals. The Northland RLTS identifies the Bay of Islands airport as a future international airport for Northland to improve access to major tourist attractions located in the area.

Additional information related to air transport will be incorporated within the ports focus area paper being prepared for UNISA.

2.4.4. Sea

- There are four sea ports (North Port, Port of Auckland, Port of Onehunga and Port of Tauranga) across the UNI area. In addition, an iron sand export facility is located off the West coast of the Waikato region.
- International freight is a focus for all three major ports with tourism also an important part of Ports of Auckland and part of Port of Tauranga's business.
- Whangarei Port is the largest importer port in UNI by volume and the third largest import port by value, behind Auckland and Tauranga.
- Significant planned aquaculture growth in both the Firth of Thames and eastern Bay of Plenty will demand increased harbour and road infrastructure to support these growth export industries.

Additional information related to maritime transport will be incorporated within the ports focus area paper.

2.5. UNI regional strategic transport priorities

A summary of key regional strategic transport priorities for each region within the UNI area is provided in Appendix 2. Common strategic priorities to UNISA can be broadly summarised as:

- Targeted investment on intra and inter-regional strategic transport corridors (RONs, Rail)
- Managing transport demand and providing for alternative modes (i.e. public transport)
- Improving road safety through a safe system approach

These priorities are influenced by wider international and national transport-related drivers that provide strategic opportunities for UNISA collaboration.

Several studies have also been recently undertaken or started within the UNI area to help inform the freight and passenger transport picture (refer Appendix 3 for a list of these). In addition to these studies the NZ Transport Agency has defined freight effectiveness with a particular focus in the UNI as a key strategic priority. NZ Transport Agency is advocating for the preparation of an aligned land use and transport network plan for the UNI to ensure the transport network is optimised for both freight and tourist traffic while acknowledging potential associated road safety benefits.

3. Key drivers of UNI transport collaboration

3.1. Global

The global economic recession has triggered a national focus on economic development, reducing costs and improving productivity. This sits alongside a global trend of increased international connectedness, the increased development of free trade agreements, reduced energy security and continued fuel price volatility. Changes to international shipping with the introduction of increased vessel freight capacity, are also a key factor related to the need for joint planning and collaboration.

3.2. Political

- The National Infrastructure Plan (NIP) 2011 has a key action (1 of 8) to work with regions to develop strategic infrastructure planning at macro-regional level. The NIP also identifies an opportunity to co-ordinate regional infrastructure plans to take a strategic approach to infrastructure responses and management across larger economic regions.
- The Government Policy Statement on Transport Funding 2012 (GPS) targets transport investment on three areas: economic growth and productivity, value for money and road safety. The GPS identifies the need to ensure improvement on inter-regional links is co-ordinated across regional boundaries.
- Regional Policies which seek to: (a) integrate urban form, infrastructure and investment to implement key regional growth strategies such as the draft Auckland Plan, Smart Growth (Bay of Plenty) and Future Proof (Waikato); and (b) better align strategic land use and transport planning outcomes.

3.3. Economic

- Projected business growth across will increase freight demand and transport activity. Freight flows are expected to double by 2031 in the UNI area.
- Transport costs are significant to NZ exporters and importers. On average, transport and freight insurance costs amount to approximately 6% of freight value for the NZ importer (costs for exporters are likely to be similar).

- The draft Auckland Plan Auckland is seeking to shift the Auckland economy from being import-led to being more export driven
- The impacts of poor road safety on productivity and daily businesses operations.

3.4. Social

- Projected population growth within the UNI area will drive residential and business land growth and the need for more sustainable development patterns.
- Future settlement patterns coupled with improved transport corridors are likely to drive inter-regional movements for employment and residential living adding to the freight demand (e.g. blurring of residential and business/industrial nodes between the proposed Auckland 'Southern Initiative' and Waikato sub-region 'Future Proof' areas).
- The UNI area is over-represented in motor vehicle crash statistics when compared with NZ.

3.5. Technology

- Technology developments are improving transport system efficiency, service amenity and safety.
- Information technology is increasing both efficiency and productivity in an integrated system (e.g. intelligent transport systems; data sharing between producers/importers).

3.6. Environmental

- NZ relies on imported oil for around half the country's total energy needs.
- Oil prices will remain volatile but will generally increase.
- Growing consumer demands for low-carbon supply chains.
- Using energy efficiently and reducing greenhouse gases (economic co-benefits).

3.7. Investment

- There are at least 12 large (greater than 100ha) industrial land use zones proposed across the UNI area (Rangiuru, Tauriki, Taupo, Hautapu, Ruakura, Horotiu, Te Rapa North, Rotokauri, Titanium Park, Pokeno, Tuakau, Drury).
- Each of the above industrial land use zones has identified potential freight hubs as a key use of their land. All sites expect to be serviced by partially taxpayer or ratepayer funded transport infrastructure at significant cost for each site.
- New transport funding mechanisms to enable critical transport infrastructure projects.

4. Potential strategic opportunities for UNISA

The UNI area includes a mix of urban and rural economies. This is reflected in the findings of the MED Economic Linkages (Auckland-Hamilton-Tauranga) report (2011). Understanding the role transport plays in enabling better inter-regional urban economy linkages for the UNI could enable economic growth and improved liveability. An analysis of the regional rural economy linkages for all four regions and their significance to the national economy would support a better understanding of how linkages between UNI regional economies could be strengthened.

Given the importance of the Auckland region and current pressures on the Auckland transport network, it is acknowledged that there is a need to focus on movements within Auckland as well as external to the Auckland network. An intra regional project may provide greater overall benefit to the UNI than an inter-regional project (eg Western Ring Route). Domestic transport is a very important component of the transport system. Improvements to both domestic and state highway components of the transport network are important to improve transport system performance and create a system that is effective, efficient, safe, secure, accessible and resilient.

The UNISA's overall objective is "to work together to maximise sustainable development opportunities for all of the UNI and its contribution to New Zealand". Given this, potential strategic opportunities exist for UNISA. A summary of these strategic opportunities is provided below:

4.1. Collaborative action

- Understanding the role of ports (including inland ports and freight hubs), each individual road and rail corridor in the UNI, and ensuring this is reflected in transport and land use planning and investment decisions
- Rationalising decision-making and investment around freight hub developments. Economic co-benefits can come from rationalising freight hubs to reduce costs.

- Rationalising decision-making and investment around transport infrastructure (road and rail networks in particular) and services to protect corridors and optimise economic and environmental outcomes.
- Rail and coastal shipping impose fewer environmental costs and reliance on fossil fuels.
- Understand the role of funding and pricing mechanisms in protecting and improving strategic corridors that have strategic significance for the UNI area.
- Optimising decision-making and investment related to land use and transport planning from a community well beings outcomes perspective.

4.2. Regional planning and investment

- Aligning land use, transport and spatial planning in the context of integration, growth management and sustainable development.
- Co-ordinating planning for inter-regional road safety initiatives on issues of common strategic interest (particularly given population, traffic and freight growth projections)
- Instigating inter-regional energy and environmental initiatives related to issues of mutual strategic interest (related to transport and climate change (peak oil) and energy efficiency)
- Supporting government's existing five Roads of National Significance (RONs) within the UNI area and supporting government's proposed new Roads of National Significance (RONs) within the UNI area (SH1/29 South of Cambridge to Tauranga and SH1 South of Cambridge to Taupo)
- Supporting rail investment through the KiwiRail Turnaround Plan
- Collaborative investigation of funding options and pricing signals
- Joint action on strategic route protection (designations) and reverse sensitivity (land use planning)
- Planning for high productivity motor vehicle routes
- Supporting more efficient linkages between the ports, cities and inter-regional multi-modal transport/freight hubs
- Reaching consensus between the regions on how transport can contribute to maximising the potential of each region, the UNI and NZ as a whole and prioritising investment accordingly
- Positioning UNISA for future transport implications arising from other development outside the UNI area such as Port Taranaki's proposed Western Blue Highway

5. Proposed approach

It is recommended that UNISA develop a work programme based on the opportunities identified which will seek for the UNI and New Zealand, the benefit to be gained from developing an integrated high performing transport system.

5.1. Common Vision

A first step could see the development of a common UNI transport vision that can be championed by all political leaders within UNISA along with identifying the major stakeholders with whom the vision should be shared and agree a plan and communication strategy.

5.2. Transport network and freight planning

The development of a transport network plan (underpinned by sustainable development and spatial planning principles) for the UNI would be informed by the Auckland Plan, strategic land use planning within the UNI regional land transport strategies, Regional Policy Statements and any further land use and transport related planning (central and local government) occurring across the UNI area. The plan needs to focus on movements within as well as across regional transport networks.

Development of the plan would directly involve representatives from central and local government, NZ Transport Agency, port companies, shippers, KiwiRail, and road transport and logistics operators. Data collection, scenario development and modelling related to freight movements, land use and energy (including freight hubs) would need to occur to inform future planning and investment at national and regional levels.

Whilst the first focus of this work might be on assessing current strategic land use planning in the UNI and planning for transport networks to support an efficient freight network, such a plan should also examine the role of the transport network in supporting tourism and the region's more isolated communities. The transport network plan would also be a valuable input to long term strategic planning across all four wellbeings for regions that do not have the benefit of an integrated strategic planning framework like Auckland.

A working group could be formed to lead this with UNISA assuming a governance role for the project.

5.3. Other areas of action

Further work programmes will be driven from the strategic opportunities for transport identified in section 4. Programmes that maximise transport system performance improvement, strategic opportunities and deliver on the agreed UNI transport outcomes will be a priority.

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Appendix 1

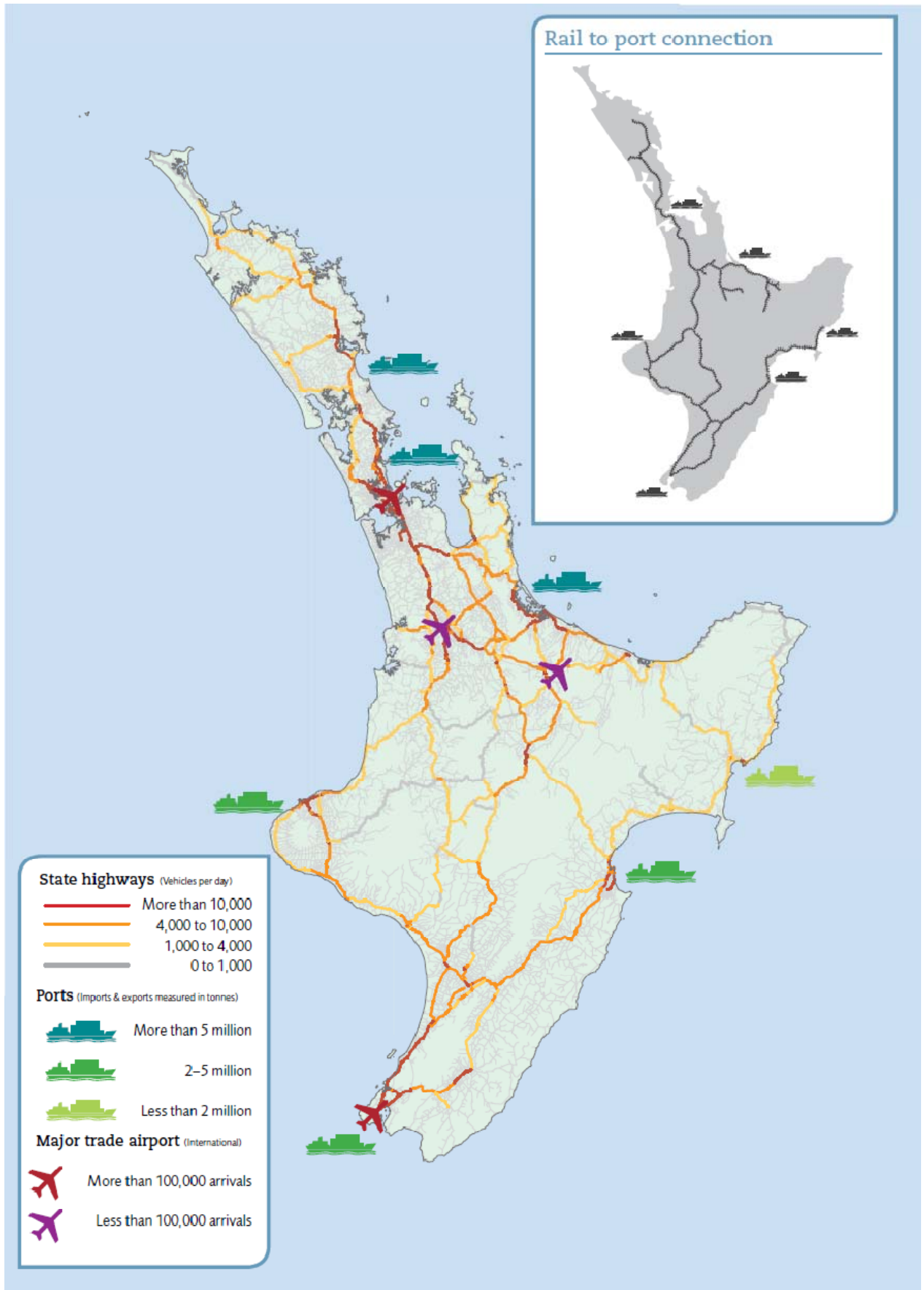


Figure 1: Major North Island transport network connections (Connecting NZ, 2011)

Appendix 2

Table 1: Strategic priorities by transport mode and UNI region¹

	Strategic priority				
	State Highway	Local road	Rail and Sea freight	Public transport	Walking and cycling
Northland	Development of strategic corridors: <ul style="list-style-type: none"> - SH1 Puhoi to Wellsford (RoNS) - SH1 (Wellsford to Bay of Islands) - Strategic freight and tourism routes - Route improvements (e.g. four-lane Brynderwyns to Whanagrei) 	<ul style="list-style-type: none"> - Investigate load capacity of bridges on local road networks - Address accessibility and safety of access to airports to ensure their efficient use 	<ul style="list-style-type: none"> - North Auckland Main Trunk (NAMT) - Multi-modal freight distribution centre - Marsden Point Rail Link - Upgrade of NAMT and deep water port developments - Investigate opportunities for coastal shipping 	<ul style="list-style-type: none"> - Investigate passenger rail services - Investigate public transport services outside of Whāngārei City where economically viable - Support demand management initiatives to increase public transport patronage in urban Whāngārei 	<ul style="list-style-type: none"> - Implement regional walking and cycling Strategy and promote strategic walking and cycling route priority development areas
Auckland	<ul style="list-style-type: none"> - Puhoi to Wellsford (RoNS) - Inter-regional corridors: Auckland to Waikato and Bay of Plenty (safety and capacity improvements) - Western Ring Route, Newmarket Viaduct and Victoria Park tunnel completion - Removal of pinch points in strategic road network (eg Mt Wellington on the Southern Motorway) - Improve airport road access (SH20A/20B) - Removal of pinch points in strategic road network - Additional Waitemata Harbour crossing (road and PT) 	<ul style="list-style-type: none"> - Removal of pinch points in strategic road network - Road connection between East Tamaki and SH20 - Arterial road network improvements (PT/regional freight focus) - Providing effective transport access to airport and sea ports 	<ul style="list-style-type: none"> - NAMT - Rail to North Shore - Eastern Rail Line and North Island Main Trunk (NIMT) (Westfield – Papakura) -3rd rail line (freight / passenger rail) - Avondale –Southdown rail connection - Providing effective transport access to airport and sea ports 	<ul style="list-style-type: none"> - Integrated ticketing and fares - Rail network electrification - City centre transport improvements - Auckland, Manukau, Eastern Transport Initiative - City Rail Link –business case, planning, route protection - Route protection for CBD to airport rail corridor and rail to North Shore - Extend busway from Botany to Flatbush - Extend Northern busway to Silverdale and from Onewa to city centre - Electrification of rail to Pukekohe - Ferry network extensions to Hobsonville and Beach Haven and further investigations) 	<ul style="list-style-type: none"> - Complete regional walking and cycling networks that enable connections within and between communities

¹ Note: Identified UNI interregional priorities in bold (Draft Auckland Plan, p168)

	Strategic priority				
	State Highway	Local road	Rail and Sea freight	Public transport	Walking and cycling
				- Inter-regional passenger rail (Hamilton –Auckland)	
Waikato	Development of inter-regional strategic corridors: <ul style="list-style-type: none"> - Waikato Expressway (RoNS) - SH1/29 - SH1 (SH29 to Turangi) - SH3 route security - SH 2 route security and safety - Develop a regional network of stock truck effluent disposal sites 	<ul style="list-style-type: none"> - Expressway connectivity and local improvement - Hamilton Cross City Connector - Hamilton City Ring Roads - Local accessibility packages to support growth planning 	<ul style="list-style-type: none"> - NIMT/ ECMT capacity improvement - Corridor protection through integrated planning - Integrated freight hubs 	<ul style="list-style-type: none"> - Inter-regional passenger rail (Hamilton – Auckland) - Urban PT corridors and infrastructure - PT network optimisation - Commuter PT services improvement - Community accessibility transport projects 	<ul style="list-style-type: none"> - Local walking and cycling network improvement focusing on local accessibility - Development of regional and national cycle trails
Bay of Plenty	<ul style="list-style-type: none"> - Development of a priority freight network comprising the strategic routes servicing the Port of Tauranga - Inter-regional corridors focusing on freight efficiency, route security, safety, connectivity, and maintenance. 	<ul style="list-style-type: none"> - Local network improvement to support economic growth, access and mobility and safety 	<ul style="list-style-type: none"> - Rail capacity improvement to support inter and intra-regional movement - Integrated freight hubs - Possible opportunities to barge aquaculture products with the development of harbour facilities in Opotiki 	<ul style="list-style-type: none"> - Enhanced PT services in main urban centres – emphasis on medium distance journeys within urban areas - Improved connections between main urban centres and smaller settlements - Potential for inter and intra-regional PT rail services 	<ul style="list-style-type: none"> - Priority will be given to walking and cycling improvements that support key activity centres and to complement increases in public transport

Appendix 3

- Investigation of Northland Rail and extension of the rail line to Marsden Point
- Upper North Island Freight Study (Northland Regional Council, Auckland Regional Council, Waikato Regional Council, Bay of Plenty Regional Council, NZ Transport Agency)
- Inter-regional Transportation Study (Auckland Regional Council, Waikato Regional Council, Bay of Plenty Regional Council, Taranaki Regional Council, NZ Transport Agency)
- Auckland studies:
 - Triple track the Eastern Rail Line and Northern Main Trunk (between Westfield and Papakura) so that freight is not impacted by increased passenger rail services
 - Improving freight access between Grafton Gulley and the Port of Auckland
 - South Western Corridor to East Tamaki
 - South West Airport Multi-modal Corridor Study
 - Avondale to Southdown Rail Study
- Bay of Plenty Logistics Distribution and Supply Chain for Freight Strategy (Bay of Connections)
- High Productivity Motor Vehicle Routes in the UNI (NZ Transport Agency)
- Economic Linkages between New Zealand Cities report (Ministry of Economic Development)
- Proposed Upper North Island Freight Network Plan (NZ Transport Agency)
- Auckland, Manukau, Eastern Transport Initiative
- Investigations on:
 - Auckland City Rail Link
 - Rail link to Auckland Airport
 - Rail link to North Shore
 - Hamilton to Auckland passenger rail service