



# Draft Regional Land Transport Strategy

2010-2040

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June 2010

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# **Draft Regional Land Transport Strategy**

**2010-2040**



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## FOREWORD

This Regional Land Transport Strategy (RLTS) for the Manawatu-Wanganui (Horizons) Region is the culmination of 18 months work investigating and assessing current and potential land transport issues for the Region and developing means of addressing them. This draft builds on and refines the Regional Land Transport Strategy 2006-15, which was the first to be developed under the provisions of the Land Transport Management Act 2003. The draft RLTS has been developed by the Horizons Regional Transport Committee (RTC) which is made up of representatives from Horizons Regional Council, all local councils in the Region, the New Zealand Transport Agency (NZTA) and individuals representing access and mobility, environmental sustainability, economic development, public health, safety and personal security and cultural interests.

This review of the RLTS has been prepared during a time of much change for the land transport sector. The Government's priority for its investment in land transport is now to increase economic productivity and growth in New Zealand. There will undoubtedly continue to be new challenges ahead and the Region must ensure it is able to respond to these changes.

The land transport system is fundamental to our quality of life in the Region. It provides our residents with access to employment, education, services and recreational opportunities. The Region is fortuitously placed in the centre of the North Island, with road, air and rail links connecting us with neighbouring regions and facilities in most directions. These links enhance and promote a growing freight distribution sector, as well as supporting significant education and military facilities. We are largely a rural region and the agriculture and tourism industries are very important to us. Good rural links to transport our primary products and provide access to our tourist attractions are essential. The Region is increasingly recognised as an attractive place to live, work and play.

In order to maintain the ease with which we can do business and get around in our daily lives, we need to plan carefully for the future. The Region's residents have greatly varied transport needs, some have a high degree of choice and flexibility, and others have limited options for getting around. This Strategy promotes the Region's economic strengths, such as freight hubbing and distribution, as well as primary production. It also acknowledges the need for increased public transport in order to reduce dependence on car travel and recognises the Region's desire to see all residents participate fully in daily activities and live healthy, fulfilling lives. The transport system must adapt to changing circumstances and respond to the needs of the Region's varied communities.

I would like to take this opportunity to thank all those individuals and organisations that have contributed to the preparation of this document. The RTC believes that the Strategy represents an important step forward in developing an integrated, responsive and sustainable transport network that will help us to deliver better transport outcomes into the future.



Bruce Gordon  
**CHAIR, REGIONAL TRANSPORT COMMITTEE**

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# CONTENTS

<b>Foreword</b>	<b>i</b>
<b>EXECUTIVE SUMMARY</b>	<b>vii</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>1. Context of the Regional Land Transport Strategy</b>	<b>1</b>
1.1 Legislative Requirements and Policy Framework	1
1.1.1 Responsibilities of Transport Organisations	2
1.2 Process for the Development of the draft RLTS	3
<b>2. Setting the Scene – The Manawatu-Wanganui Region</b>	<b>5</b>
2.1 Geography	6
2.2 Population	6
2.2.1 Demographics	7
2.3 Travel Demand	8
2.3.1 Dwelling Occupancy	8
2.3.2 Vehicle Ownership	8
2.3.3 Vehicle Kilometres Travelled	9
2.4 The Region's Economy	9
2.4.1 Farming	10
2.4.2 Forestry	10
2.4.3 Education	11
2.4.4 Tourism	12
2.4.5 Defence	12
2.4.6 Health	13
2.4.7 Industry Clusters	13
<b>3. The Current Transport System and Issues for the Future</b>	<b>15</b>
3.1 Overview of Transport Trends and Issues in the Region	15
3.2 The Road Network	16
3.2.1 Strategic Routes	16
3.2.2 Safety and Level of Service Issues on Secondary Strategic Links	19
3.2.3 Urban Areas	20
3.2.3.1 Feilding to Palmerston North	20
3.2.3.2 North East Industrial Zone	21
3.2.3.3 Rural Ring Road	21
3.2.3.4 Upstream River Crossing	21
3.2.3.5 Eastern Corridor	21
3.2.4 Rural Roads	22
3.3 The Rail Network and Services	22
3.4 Public Transport	23
3.5 Freight Movement	25
3.6 Cycling and Pedestrian Activity	27
3.7 Road Safety	29
3.8 Rising Oil Prices	31
3.9 The Environmental Effects of Transport	32

3.10	Integration of Transport and Land Use Planning	34
3.11	Summary of Key Transport Issues in the Region	34
<b>4.</b>	<b>Vision, Objectives and Targets for the Region's Transport System</b>	<b>37</b>
4.1	Introduction	37
4.2	Vision and Objectives	37
4.3	Outcomes and Measures	41
	4.3.1 Inter-regional Outcomes	44
4.4	Targets and Monitoring	46
<b>5.</b>	<b>Evaluation of Strategic Options</b>	<b>48</b>
5.1	Introduction	48
5.2	Description of Scenarios	49
5.3	Selection of Preferred Option	53
<b>6.</b>	<b>Achieving the Vision – the Role of each Transport Mode, Policies, Methods and Specific Actions</b>	<b>54</b>
6.1	Role of Transport Modes	54
	6.1.1 Private Vehicles	54
	6.1.2 Taxis	55
	6.1.3 Public Transport	55
	6.1.4 Walking	56
	6.1.5 Cycling	57
	6.1.6 Freight	58
	6.1.7 Other Modes	59
6.2	Travel Demand Management	59
6.3	Policies, Methods and Key Actions	60
	6.3.1 The Road Network	60
	6.3.2 Freight	66
	6.3.3 Public Transport	68
	6.3.4 Walking and Cycling	70
	6.3.5 Rail	71
	6.3.6 Road Safety and Personal Security	73
	6.3.7 Integration of Land Use and Transport Planning	74
	6.3.8 Travel Demand Management	75
	6.3.9 Environment	76
	6.3.10 Transport System Affordability	77
<b>7.</b>	<b>Implementing and Funding the RLTS</b>	<b>80</b>
7.1	Introduction	80
7.2	Implementation	80
	7.2.1 The Levin to Wellington Road of National Significance	80
	7.2.2 The Palmerston North-Manawatu Strategic Network Implementation Plan	80
	7.2.3 The Regional Public Transport Plan	81
	7.2.4 Implementation of Other Activities	81
7.3	Funding the Strategy	81
	7.3.1 Funding Sources Available in the Region	81
	7.3.2 Government Policy Statement on Land Transport Funding	82
	7.3.3 Regional Land Transport Programme	83

<b>8. Other RLTS requirements under Section 77 of the LTMA 2003</b>	<b>88</b>
8.1 Introduction	88
8.2 Relevant Regional Economic or Land Use considerations and Likely Funding	88
8.3 Role of Education and Enforcement	89
8.4 Summary of Significance Policy	90
<b>9. Assessment of RLTS</b>	<b>92</b>
<b>10. Independent Auditor Statement</b>	<b>94</b>

<b>Appendix 1. Legislative Requirements for a Regional Land Transport Strategy</b>	<b>96</b>
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<b>Appendix 2 The Regional Policy Statement and Proposed One Plan</b>	<b>100</b>
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<b>Appendix 3. Strategic Transport Network</b>	<b>106</b>
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<b>Appendix 4. Palmerston North–Manawatu Joint Strategic Transport Study Summary of Findings – Executive Summary</b>	<b>111</b>
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<b>Appendix 5. Glossary of terms</b>	<b>121</b>
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## Tables

Table 1: Population change	6
Table 2: Population projections (medium growth scenario)	7
Table 3: Annual Average Daily Traffic shows the traffic growth on the Region's State Highways since 1990	17
Table 4: Mode of travel to work in Palmerston North	28
Table 5: Mode of travel to secondary school in Palmerston North	28
Table 6: Contribution of specific outcomes to the objectives of the RLTS	43
Table 7: Land transport outcomes, measures and targets.	47
Table 8: Assessment of Strategic Options against contribution to RLTS outcomes	52
Table 9: Journey to Work (Census Data) by Active Mode – Cycling or Walking	57
Table 10: Forecast revenue and expenditure 2009-19	84
Table 11: Expected expenditure in the Horizons Region 2009-12	85
Table 12: Estimated Cost of Draft RLTS 2010-2040	86

## Figures

Figure 1: Vehicle Kilometres Travelled by Territorial Authority	9
Figure 2: Total Area Planted in Production Forest in Horizons Region (as at 1 April 2009)	11
Figure 3: Growth in patronage on all subsidised transport services in the Region over the last 18 years.	25
Figure 4: Trend in injury crashes in the Manawatu-Wanganui Region	29
Figure 5: Injury crashes in Manawatu-Wanganui Region compared with national average	30
Figure 6: Casualties per 10,000 people in Manawatu-Wanganui Region compared with national average	30
Figure 7: Regional Strategic Network	108
Figure 8: Proposed Road Hierarchy	113

DRAFT

## EXECUTIVE SUMMARY

The draft Horizons Regional Land Transport Strategy (RLTS) sets the strategic direction for future transport planning in the Region by describing the vision, objectives and outcomes that will guide the development of the Region's transport network over the next 30 years. The Strategy covers all forms of land transport (including public transport, local roads, State Highways, walking and cycling) and looks at what the transport network looks like now, where the Region wants to be in 30 years and how it intends to get there.

The process for development of this RLTS began in mid-2009 with the release of an issues paper which was publicly consulted on throughout the Region. As the current RLTS was only developed three years ago, many of the issues from that document are still relevant in the current context and thus formed the basis of the issues paper. As a result of this consultation, two new challenges for the Region were added – integrating land use and transport planning, and transport's contribution to climate change.

While this process was underway, the Region also commenced a joint transportation study of the Palmerston North-Manawatu area, involving Horizons Regional Council, Palmerston North City Council, Manawatu District Council and the New Zealand Transport Agency. The recommendations from this study have informed the draft strategy for this area over the 30 year timeframe of the RLTS and propose a strategic roading hierarchy in the area, with associated planning controls and improvements which address

- Route inefficiencies on the current inter-regional route between Mt Stewart (near Feilding) and the Manawatu Gorge, and around the western boundary of Palmerston North
- Predicted commuter traffic growth between Feilding and Palmerston North
- The need to cater for growth in the north-east quadrant of Palmerston North, particularly for distribution industries
- The need for another crossing of the Manawatu River

### Strategic vision and objectives

A vision is an ideal to strive for, and will take some years to achieve. This Strategy is only the first step towards achieving the vision, and future revisions will refine the steps needed to work towards this. Our vision for the Region in 2040 is:

A safe, sustainable and resilient transport system that supports economic development and lifestyle choices, with strong connections to national corridors.

From this vision, five strategic objectives have been developed that define the key areas the Region will focus on to achieve the vision:

- A resilient and effective transport system that supports economic growth
- A multimodal transport system that provides access to work, social and recreational opportunities for all sectors of the community
- A safe transport system

- A transport system that protects and promotes public health
- A transport system that protects cultural values and the environment

### **The preferred strategic option and key initiatives**

In developing the draft RLTS, work was carried out to identify the best approach for investment in the Region's transport network over the next 30 years. This builds on the initial assessment of strategic options undertaken during the development of the 2006 RLTS. The preferred strategic option includes a mixture of roading improvements to cater for traffic growth where other avenues are not feasible, public transport improvements and travel demand management tools.

Some of the main components of the preferred strategic option that will help us achieve the proposed 2040 vision include:

- Ongoing maintenance and renewal of the regional roading network to ensure no deterioration over time.
- Upgrades to the section of State Highway 1 between Levin and Otaki as part of the Government's strategy to improve the Road of National Significance between north of Levin and Wellington Airport.
- Roothing upgrades and planning controls for the Palmerston North and Manawatu area strategic network, as identified in the Palmerston North Manawatu Joint Transport Study
- Safety improvements to known blackspots on State Highways and local roads
- An ongoing programme of road safety education and enforcement measures to address behavioural causes of crashes
- Service frequency and coverage improvements to Palmerston North and Wanganui urban bus services
- Improvements to commuter passenger transport services between major and minor population centres where justified
- Improvements to community public transport services where justified
- Travel behaviour change measures to reduce single-occupancy vehicle trips and increase use of alternative transport modes

### **Funding the Strategy**

While the level of funding available for the Region cannot be confidently predicted beyond the next ten years, it is estimated that the draft RLTS will cost in the order of \$5 billion to implement over the next thirty years. This includes an estimated \$140 million for the upgrade of State Highway 1 between Levin and Otaki and a bypass of Levin as part of the Levin to Wellington Airport Road of National Significance upgrade.

### **Consultation**

The consultation period for this draft RLTS is 7 July – 6 August 2010, with public hearings in August 2010. The final RLTS will be published in October 2010.

# INTRODUCTION

## 1. Context of the Regional Land Transport Strategy

### 1.1 Legislative Requirements and Policy Framework

The preparation of a Regional Land Transport Strategy (RLTS) is a legislative requirement set out in the Land Transport Management Act 2003 (LTMA). Each Regional Council must have a Regional Transport Committee (RTC) whose statutory functions include the preparation of the RLTS for approval by the Regional Council.

The RLTS enables each Regional Council to provide guidance on the land transport outcomes sought by the Region. A RLTS must be prepared once every six years and must cover a period of at least 30 years.

The LTMA also requires the RLTS to contribute to an affordable, integrated, safe, responsive and sustainable land transport system.

Strategies must also take into account the New Zealand Transport Strategy<sup>1</sup> objectives of:

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

The full legislative requirements with regard to the requirements for the preparation of an RLTS are set out in Appendix 1.

A number of national and regional policies have been taken into consideration while developing the RLTS. These include:

- The New Zealand Transport Strategy 2008;
- The Government Policy Statement on Land Transport Funding 2009-10 to 2018-19;
- The National Energy Efficiency and Conservation Strategy (NEECS);
- The New Zealand Disability Strategy;
- 2020 Safer Journeys – the National Road Safety Strategy;
- Getting There – On Foot, by Cycle;

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<sup>1</sup> The New Zealand Transport Strategy is a non-statutory document that sets out a plan for the whole transport sector in New Zealand to 2040, introducing defined targets and actions to achieve the targets.

- The Manawatu-Wanganui Regional Passenger Transport Plan;
- The Regional Policy Statement<sup>2</sup>;
- The National Rail Strategy; and
- The National State Highway Strategy.

A number of national and district plans and strategies have been taken into account during the preparation of this RLTS. These include:

- Long-term Council Community Plans and Annual Plans of all territorial authorities in the Region;
- District Plans of all territorial authorities in the Region;
- New Zealand Transport Agency's National Land Transport Programme 2009-12;
- Horizons Regional Council's Regional Land Transport Programme 2009-12;
- Palmerston North City Council's Transportation Management Plan;
- Palmerston North City Council's Bike Plan
- The Manawatu Active Transport Strategy;
- Wanganui District Council's Cycling Strategy;
- Wanganui District Council's Rural Roding Strategy; and
- Horowhenua District Council's Walking and Cycling Strategy.

### 1.1.1 Responsibilities of Transport Organisations

#### Central Government

The legal and policy framework for all transport activities in New Zealand is set by the Ministry of Transport, headed by its Minister.

The Minister works through the Ministry of Transport to head the group of Central Government organisations which have responsibility for transport in New Zealand. The Ministry manages the interface with a number of Crown entities that have varied responsibilities for sectors of the transport system.

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<sup>2</sup> The RLTS must not be inconsistent with this. The sections of the Regional Policy Statement that consider transport are outlined in Appendix 2.

These include:

- New Zealand Transport Agency (NZTA), formerly Land Transport New Zealand and Transit New Zealand, has responsibility for land transport planning; managing the State Highway system; regulating access to, and participation in, the land transport network; promotion of land transport safety and sustainability; and allocation of Government funding for land transport;
- Transport Accident Investigation Commission;
- Maritime New Zealand;
- Civil Aviation Authority including the Aviation Security Service;
- Road Safety Trust; and
- The New Zealand Railways Corporation (trading as KiwiRail Group) - a State Owned Enterprise that is responsible to the Crown but operates as a commercial entity.

### **Regional and Local Government**

At a local level, the territorial authorities of the Region are responsible for the management of local roading networks, while the Regional Council has statutory transport planning responsibilities through the RTC, the RLTS and the Regional Land Transport Programme. The Regional Council is also responsible for the identification of essential public transport services and the provision of those services where necessary.

## **1.2 Process for the Development of the draft RLTS**

The process for the revision of the RLTS began in mid-2009 with the release of an issues paper which was publicly consulted on throughout the Region. As the previous RLTS was only developed three years ago, many of the issues from that document are still relevant in the current context and thus formed the basis of the issues paper. At its September 2009 meeting, the RTC considered submissions on the issues paper.

As a result of this consultation process, two new issues were taken forward for consideration in the draft RLTS. These were the challenges of integrating land use and transport planning, and transport contribution to climate change. Many submissions focused on the potential impacts of 'peak oil' and discussion of this has been included in this draft Strategy.

While this process was underway, the Region commenced a joint transportation study of the Palmerston North-Manawatu area, involving Horizons Regional Council, the NZTA, Palmerston North City Council and Manawatu District Council. The aim of the study was to develop an evidence-based network hierarchy for the area, testing the validity of a number of proposals which have been promoted by these organisations over recent years. The recommendations from this study have informed the draft strategy for this area over the next 30 years.

A number of workshops of the Regional Advisory Committee (an advisory committee to the RTC made up of representatives from the territorial authorities, NZTA and Horizons Regional Council) and three further meetings of the RTC have:

- refined the Strategy's vision and objectives;
- developed a set of specific outcomes, and revised measures and targets for the RLTS;
- assessed three strategic options for achieving the vision and objectives of the RLTS;
- refined the policies and key activities set out in the RLTS as a means of addressing the Region's transport issues and guiding development of the transport system over the next thirty years, incorporating proposals from the Palmerston North Manawatu Joint Transport Study (JTS);
- outlined how the RLTS will be implemented; and
- considered likely funding sources over the life of the RLTS.

After a public consultation period between 7 July and 6 August 2010, it is proposed that the RTC will:

- hear and deliberate on submissions on the draft RLTS on 18 and 19 August 2010;
- consider the proposed RLTS on 7 September; and
- recommend the RLTS for adoption by the Regional Council on 28 September 2010.

## 2. Setting the Scene – The Manawatu-Wanganui Region

The people of the Region, and more importantly where and how they live, will play a critical role in shaping the needs of the transport system. Over the next 30 years the population will become more urbanised, older and will live in smaller households.

With the exception of the area now covered<sup>3</sup> by Palmerston North City and Manawatu District, all the territorial authorities are expected to experience population decline. All are expected to see large increases in the proportion of the population aged 65 and over and all will see average household sizes continue to decline.

The increasing population of the area now covered by Palmerston North City and Manawatu District will lead to pressures on the transport systems of these authorities, particularly with regard to commuter movements between and within them. Conversely, population decline in the other parts of the Region will bring about its own set of transport problems, such as a declining ratepayer base to fund transport projects. However, some of this population loss will be offset by rates contributions from non-resident ratepayers owning second and holiday homes in the Region, particularly in the Ruapehu and Horowhenua Districts.

The transport needs of an ageing population will also have to be considered as many people over the age of 65 become transport disadvantaged and reliant on public transport (including taxis) and friends and family to meet their needs.

There has also been a significant trend for more dispersed land development and a decline in average household size. As residential areas move further from urban focal areas the distances become too great to provide viable public transport or for residents to walk or cycle.

While the Region has not experienced the population and economic growth of some of the more densely populated regions in New Zealand, it nevertheless has a number of unique features that contribute to the way in which goods and people are transported through and around the Region. This has led to the promotion of the Region's involvement in the distribution industry, which is heavily reliant on a reliable transportation network.

Palmerston North is now recognised as the hub of the growing freight distribution industry because of its location in the central-lower North Island connecting to the surrounding regions of Taranaki, Hawkes Bay, Waikato and Wellington via the State Highway and rail networks. This role is discussed further in Section 2.4.

<sup>3</sup> In June 2010, the ABC Report into possible amalgamation, boundary changes or cross boundary servicing between Palmerston North City and Manawatu District Council was released which recommended that the two Councils be amalgamated.

## 2.1 Geography

The Region is the second largest local authority region in the North Island and the sixth largest in New Zealand, with 10% of New Zealand's land mass contained within its boundaries.

There are seven local authorities that are almost completely contained within the Region, with small portions of Waitomo District, Stratford District and Taupo District also included within regional boundaries.

The seven main districts are:

- Ruapehu
- Manawatu
- Palmerston North City
- Horowhenua
- Wanganui
- Rangitikei
- Tararua

The Region's physical geography is relatively varied, with the volcanic plateau to the north, the alluvial plains of the Manawatu River to the south and the Ruahine and Tararua Ranges bisecting the length of the Region. Both the Tasman Sea and the Pacific Ocean border the Region.

The Region's climate is comparatively mild with greater extremes of temperature inland. Sunshine hours are in accordance with the national average, with the exception of Palmerston North, which experiences a greater proportion of cloudy days. Rainfall is below the national average, with Palmerston North receiving 960 mm per annum. Rainfall through the rest of the Region varies between 1,000 mm and 2,000 mm per annum.

## 2.2 Population

At the 2006 Census, the usually resident population of the Region was 222,219, which was a 1.1% increase on the 2001 population of 220,971.

Table 1 below shows the population of each district and population change since 1991.

<b>Territorial Authority</b>	<b>1991</b>	<b>1996</b>	<b>2001</b>	<b>2006</b>	<b>Percentage Change since 1991</b>
Ruapehu	16,863	16,743	14,292	13,572	-19.5
Wanganui	44,703	45,042	43,269	42,639	-4.62
Rangitikei	16,578	16,356	15,099	14,712	-11.3
Manawatu	27,132	28,080	27,510	28,251	4.12
Palmerston North	70,320	73,080	73,122	75,543	7.43
Tararua	19,851	19,068	17,859	17,634	-11.2
Horowhenua	29,811	30,147	29,820	29,868	0.01
<b>TOTAL</b>	<b>225,258</b>	<b>228,516</b>	<b>220,971</b>	<b>222,219</b>	<b>-1.3</b>

**Table 1: Population change**

Statistics New Zealand's population projections indicate an expected overall 6.5% increase in the Region's population by 2031.

Within this, Palmerston North City and Manawatu District are expected to have population increases, with the remaining districts likely to continue to experience population decline.

<b>Territorial Authority</b>	<b>2011</b>	<b>2016</b>	<b>2021</b>	<b>2026</b>	<b>2031</b>
Ruapehu	13,500	13,050	12,450	11,800	11,050
Wanganui	43,600	43,100	42,400	41,500	40,300
Rangitikei	14,900	14,500	14,050	13,450	12,750
Manawatu	30,000	30,900	31,600	32,200	32,700
Palmerston North	82,600	85,800	88,800	91,500	94,000
Tararua	17,750	17,550	17,300	16,950	16,450
Horowhenua	30,900	30,900	30,600	30,200	29,500
<b>TOTAL</b>	<b>233,500</b>	<b>235,800</b>	<b>237,200</b>	<b>237,600</b>	<b>236,750</b>

**Table 2: Population projections (medium growth scenario) <sup>4</sup>**

Statistics New Zealand has projected population growth of 15,100 between 2006 and 2031 (medium growth projection) for Palmerston North, with the city population reaching 94,000 by 2031. The Department's population projections show continuing urban drift, with large cities growing faster than smaller cities and rural towns across the country. The medium growth projections for Palmerston North are slightly lower than the national average but are much higher than other regional cities that are smaller than Palmerston North.

## **2.2.1 Demographics**

### **2.2.1.1 Age distribution**

All territorial authorities within the Region will have a greater number of people aged over 65 years in 2031, when compared with 2006. This reflects the national trend of an ageing population and will see the regional median age rise to 42 years by 2031 from 36.6 in 2006. This overall ageing of the population will have a major influence on the predicted population changes for districts within the Region, with the greatest effects noticeable in the districts that are likely to have the highest median ages. For example, Statistics New Zealand's medium population projection scenario for the Horowhenua District predicts a population decrease of 5% and a median age of 52.9 years by 2031, up from 42.1 years in 2006. Such changes in demographic structure are likely to have a significant impact on the transport needs of the population as the more elderly the population becomes, the more dependent they become on others for their transportation needs.

<sup>4</sup> Statistics New Zealand Subnational Population Projections February 2010.

### **2.2.1.2 Socio-economic factors**

The median income of the Region at the 2006 Census was \$21,600, which is significantly lower than the national median income of \$24,400. Median incomes in the Region range from \$24,200 in Manawatu District to \$18,500 in Horowhenua District.

The unemployment rate for the Region in March 2010 was 7%, compared to the national unemployment rate for the same period of 6%.

The rates of household ownership have dropped significantly since 1996, when 66% of households in the Region were owned by the occupants. At the 2006 Census, 52% of households in the Region were owned by the occupants. The most likely reason for this is that younger generations are deferring home ownership for other factors such as career entry, marriage and child bearing.<sup>5</sup>

## **2.3 Travel Demand**

### **2.3.1 Dwelling Occupancy**

The number of people per dwelling is an important indicator of travel demand. As new dwellings tend to increase urban sprawl in some parts of the Region, this leads to a dependence on private vehicle use and new areas are often not well planned for public transport provision.

The Region's average household size is 2.5 people per dwelling; this is less than the national average of 2.7. Of note also is that the average household size in Palmerston North has declined from 2.9 residents per household in 1991 to 2.6 in 2006. This has had an impact on the number of new dwellings built in the city and environs. Palmerston North City's average household size is expected to continue to decline to 2.3 residents per household in 2031. Across the Region, household size is projected to decline from 2.5 to 2.2 residents per household by 2031.

### **2.3.2 Vehicle Ownership**

In recent years there has been an increasing trend for households to have more vehicles, which runs counter to the declining rate of household size. In 2006, almost half (49%) of all households in the Region had access to at least two motor vehicles. This is slightly less than the national average of 52% of households having access to two motor vehicles or more. The regional rate has risen from 40% at the 1996 Census.

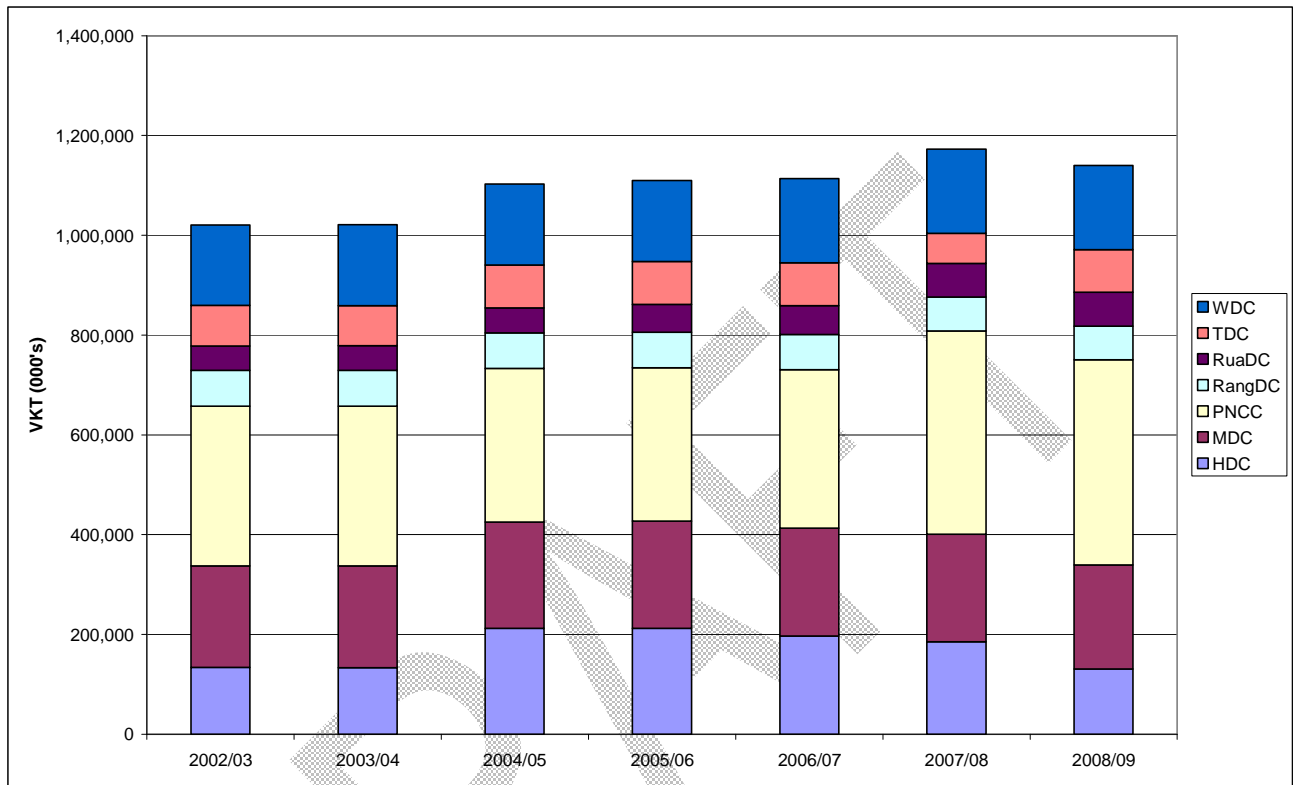
While there has been a steady decline in the numbers of new cars registered nationally since 2005, overall vehicle registrations in the Region have increased by 19% since 2000.

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<sup>5</sup> "The Falling Rate of Home Ownership in New Zealand", Centre for Housing Research, Research Bulletin no. 13, February 2008.

### 2.3.3 Vehicle Kilometres Travelled

The two factors described in 2.3.1 and 2.3.2 may lead to an increase in vehicle kilometres travelled. In the six years since 2002-03 the total vehicle kilometres travelled across the Region increased by more than 11%.<sup>6</sup> This number could have been higher but for a drop in 2008-09 that can be attributed to higher fuel prices and the global recession.



**Figure 1: Vehicle Kilometres Travelled by Territorial Authority**

The current trend of vehicle use is that people are making more trips, more often and over longer distances. Development of the Road of National Significance along the State Highway 1 corridor between Wellington Airport and north of Levin will also enhance the opportunity to travel more efficiently between the Greater Wellington and Horizons regions. Therefore, it is logical to conclude that there will be more travel outside the Region for both private and business purposes.

## 2.4 The Region's Economy

In 2009 the Region's economy contributed more than \$5.3 billion<sup>7</sup> in Gross Domestic Product (GDP) to the nation's economy. For most of the period 1998-2009 the regional economy grew positively although at a lower rate than the national economy.

Significant contributors to the Region's economy are outlined below.

<sup>6</sup> New Zealand Transport Agency data.

<sup>7</sup> Infometrics Regional GDP estimates, March 2010.

### 2.4.1 Farming

The Region's economy has historically been very reliant on agricultural enterprise. The agriculture (includes horticulture and fruit growing; sheep, beef and livestock farming; dairy farming; other farming; services to agriculture and hunting and trapping) sector contributes 10% of regional GDP and provides 12% of all full-time equivalent employment<sup>8</sup>.

Farmland is now used more intensively than in the past, with increased dairy farming and more intensive livestock production.<sup>9</sup> Such intensification of land use is likely to have implications for transport networks, with increasing numbers of heavy vehicles servicing these industries. Long-term projections to 2026 of employment and GDP generation for the primary sector show that both will grow during this timeframe.

Farming is one industry likely to be most affected by any long-term effects of climate change. Higher temperatures (including higher incidences of drought), stronger winds and more intense rainfall events all have the potential to affect agricultural production.

### 2.4.2 Forestry

The Integrated Transportation Study undertaken by Horizons Regional Council in 2004 indicated that there were significant new plantings of exotic forests in the Region during the period 1992-2002. Therefore, based on a harvest period of 25-35 years for radiata pine, any significant "wall of wood" effect is likely to be in the next 10-20 years.

The most significant effects of forestry will be on local road networks, particularly those of Ruapehu, Wanganui and Rangitikei Districts, which is more than 75% of the total land area planted with radiata pine throughout the Region.

Wanganui District Council has estimated that more than 50% of the district's forest estate will reach harvestable age in the period 2020-2030<sup>10</sup>. Logging of these forests is anticipated to generate approximately 270,000 truckloads of harvested logs over this period with most of these movements on low volume rural roads en route to State Highways 1, 3 and 4.

However, even in areas with significantly less exotic forest, such as the Manawatu and Tararua Districts, the effects of forestry logging will be significant on some local roads. For example, the Tararua District estimates that from about 2020 there will be approximately 16,000 return trips per year from the Weber area forests by trucks with full axle loads.<sup>11</sup>

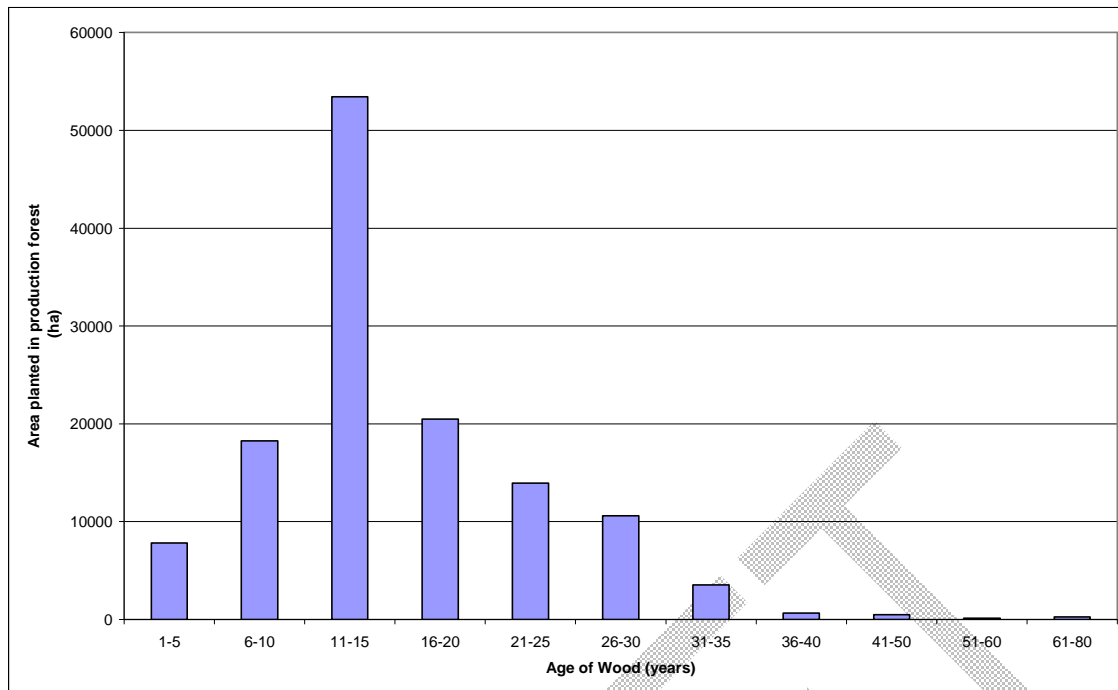
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<sup>8</sup> Business and Economic Research Limited, "Economic Profile and Projections for the Wider Manawatu Region", March 2009 and "Economic Profile and Projections for the River Region", November 2008.

<sup>9</sup> Horizons Regional Council State of the Environment Report for the Manawatu-Wanganui Region 2005.

<sup>10</sup> Forestry Effects on Low Volume Rural Roads – 30 year Regional Forecast Study, Wanganui District Council and New Zealand Transport Agency, 2009.

<sup>11</sup> Tararua District Council Long-term Council Community Plan 2009-2019, pg 89.



Source: Ministry of Agriculture and Forestry, 2009

**Figure 2: Total Area Planted in Production Forest in Horizons Region (as at 1 April 2009)**

### 2.4.3 Education

Education, particularly in the tertiary sector, is a major industry in the Region. For example, this sector employs more than 12% of the workforce in Palmerston North City. Massey University, the International Pacific College and UCOL (previously the Manawatu Polytechnic) are large facilities that attract both national and international students.

Massey University in particular has a significant effect on traffic flows in Palmerston North, with approximately 9,000 students and staff travelling to its Turitea campus each day. As Palmerston North has only one river crossing, almost all this traffic flows down Fitzherbert Avenue and across the Fitzherbert Bridge to Massey. This traffic, coupled with a large secondary school on the same route, causes some congestion at peak times. However, the introduction of the Massey Unlimited Access Scheme in 2005, enabling free public transport travel for all Massey students and staff, has eased some of these pressures.

The education, research and defence sectors are likely to decline in importance in the city economy (in terms of their financial contribution to the local economy) but will remain key sectors. They are responsible for attracting a large number of young people into the city so play an important role in the positive net migration expected over the period covered by the projections. These sectors also offer a significant degree of stability for the city's economy because they are relatively independent of national economic cycles or may even operate in a counter cyclical role. For example, tertiary enrolments may decline during periods of high economic growth, when high demand for labour encourages young people to go into work directly from school rather than into full-time tertiary study.

The Region also has a significant number of highly regarded secondary schools with boarding facilities that attract pupils from all over New Zealand and overseas.

#### **2.4.4 Tourism**

Tourism within the Region accounts for 5% of the total New Zealand market. Domestic tourism accounts for 90% of total overnight visits throughout the Region, although international visitors are more important to the Ruapehu and Wanganui Regional Tourism Organisations with 20% of visitors being from overseas.

The principal areas of tourism are in the Ruapehu District (particularly tourism activities on the Volcanic Plateau), Whanganui River Region and Rangitikei District.

The New Zealand Tourism Research Council predicts growth of approximately 3% in total visits in the period 2009-2015 for the Region, with much of this attributable to international visitor growth of 19%.

Despite a decline in permanent population indicated by the Census statistics, Ruapehu District reports a significant increase in the number of building consents issued over recent years, which may be linked with the Region's increasing popularity as a domestic tourism destination. It is likely therefore that the decline in permanent population is offset at certain times of the year by an increase in the number of visitors to the district.

Tourism in the Region is influenced by national tourism trends, particularly the trend to adventure tourism, and an increase in free independent travellers as opposed to tour groups.

In February 2009 the Government announced the development of a National Cycleway (later renamed "Great Rides") as a way of enhancing New Zealand as a premier tourist destination. Seven "Quick Start" tracks were then announced in July 2009 that would start construction in the summer of 2009-10. Two of these trails are in the Region - the Central North Island Rail Trail and the Mountain to the Sea Trail. It is hoped that these rides will emulate the success of the Central Otago Rail Trail which attracts up to 10,000 riders per year. These rides could make a significant difference to the tourism sector in the Region over the lifetime of this Strategy.

#### **2.4.5 Defence**

There are three main defence facilities within the Region - an airforce facility at Ohakea and army bases at Linton and Waiouru. Together they employ more than 25% of all of New Zealand's Defence Force personnel. Linton and Ohakea contribute approximately 6% of GDP to the Palmerston North and Manawatu economies respectively while the Waiouru facility contributes 13% of all full-time employees and approximately 17% of GDP to the Ruapehu District economy.

Plans were announced in 2006 for Ohakea to become the largest air force base in New Zealand and initial work was prepared for significant expansion as the base at Whenuapai in Auckland was to be progressively closed down

and aircraft and staff transferred to Ohakea. While the future of the project has been unclear for some time, and may not be completed, the Government has already committed to major spending at Ohakea. Funding of \$129 million as part of the “Essential Infrastructure Project” was approved by the Government in late 2007, and a range of construction projects have begun with completion expected in the 2012-2013 financial year.

#### **2.4.6 Health**

Centralisation of health services in recent years has led to a reduction in the hospital services provided in a number of districts in the Region. This necessitates travel to Palmerston North for specialist appointments and inpatient services from the Tararua and Horowhenua districts, which were previously serviced by local hospitals. This has caused transport difficulties for those residents unable to drive themselves to Palmerston North, and has necessitated the introduction of specialist health shuttles for the Tararua and Horowhenua districts.

Residents in some parts of the Whanganui District Health Board (DHB) region, particularly in the more remote parts such as the Waimarino, have difficulty accessing health services at either Wanganui or Palmerston North hospitals. This has led the Whanganui DHB to investigate the introduction of shuttles to Wanganui and Palmerston North hospitals.

There has also been an increase in residents from the Wairarapa DHB region travelling to Palmerston North as access to specialised services is easier than travelling to Wellington.

In July 2009 a Ministerial Review Group reported to the Minister of Health on a number of recommendations to improve the national health system. A key theme from this report was that health care should be closer to home, with more focus on primary and community-based health services. This may have a long-term effect on the transportation needs of people accessing the health service.

#### **2.4.7 Industry Clusters**

A number of industry clusters are being promoted in the Region. These include biotechnology, information technology, call centres and defence supplies. Two examples of these are the Hopkirk Research Institute, an animal health research facility located at Massey University's Turitea campus, and the Bio-Commerce Centre, the Region's business incubator, located at the Fitzherbert Science Centre. Plans were announced in March 2009 to establish an internationally significant brand to market New Zealand food research expertise to the world, called Food Innovation New Zealand.

Clusters encourage businesses from within the same sector to locate together, in order to achieve synergy and promote the Region as a centre for this activity.

Wanganui, Palmerston North and Feilding are home to a number of significant manufacturing and processing plants. As an example, the dairy milk products company, Open Country, opened a whole milk powder processing plant in Wanganui in August 2009.

Between 2000 and 2008 the number of people employed in the logistics sector (including wholesale trade, transport, postal, warehousing and non-store retailing) in Palmerston North City and Manawatu District increased from about 4,000 in 2000 to 5,830 in 2009. Large scale operators like Foodstuffs, Progressive Enterprises and Ezibuy have all expanded the volumes of goods passing through their distribution centres in the North East Industrial Zone<sup>12</sup> (NEIZ). Employment projections to 2031 suggest that the logistics sector will have the strongest growth rate of any sector in Palmerston North City.

BERL (Business and Economic Research Limited) research suggests that the logistics sector GDP will grow in Palmerston North City by 4.6% per annum until 2026 and in the Manawatu District by 3.8% per annum. This is much greater than the projected growth rate for total GDP of the wider Manawatu region (Horowhenua, Tararua, Palmerston North and Manawatu territorial authorities), which is predicted to grow by 2.9% per annum.

Because of this growth in the logistics sector the capacity of the current NEIZ is predicted to be fully exceeded before the zone has been fully utilised. It is likely that further expansion beyond the zone will be required to meet demand. A proposal for a further 105 ha to be added to the existing zone is subject to a joint study by both Palmerston North City and Manawatu District Councils.

Healthcare and social assistance services in the Region have also become much more centralised in Palmerston North. Between 2000 and 2009 the total employment increase in this sector in Palmerston North was greater than the total increase in the Region's employment in the sector. There is evidence that the sector is consolidating in Palmerston North, which requires people from the MidCentral DHB region to travel to Palmerston North for services. The Whanganui and Wairarapa DHBs are increasingly working with MidCentral DHB to provide a full range of services to their populations.

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<sup>12</sup> An area of land in Palmerston North City that is zoned for large (5ha and above) industrial use. The area is particularly important for the growth of the distribution and communication industries as a natural hub in the lower North Island due to its access to the roading, rail and air networks.

### **3. The Current Transport System and Issues for the Future**

#### **3.1 Overview of Transport Trends and Issues in the Region**

The Region, largely due to its central location, is well served by a strategic network of road, air and rail links, with access to ports in neighbouring regions. In order to ensure that sustainable economic and social development of the Region is supported, it is vital to ensure that this network continues to function well and promotes the Region's increasingly important role as a centre for the distribution of freight in the North Island.

However, there are a number of vulnerable sections on the network, which will become subject to increasing pressure over the next 30 years if traffic growth continues. Household sizes continue to decline and the number of cars per household has grown significantly. These factors, combined with economic growth, have led to the traffic growth that is now placing certain sectors of the strategic network under pressure.

Road safety on the Region's networks continues to be a major issue (although significant improvements have been achieved since the early 1990s) and further efforts are required to achieve national road safety targets. Concerns about safety have contributed to a decline in the use of active modes of transport, which is contributing to the health problems that are exacerbated by a decline in physical activity.

While there are some localised areas of poor air quality in the Region, there is little firm evidence to suggest that transport emissions contribute significantly to this. However, the significant overall contribution of transport emissions to global climate change cannot be ignored and must be addressed in a way that is appropriate for the Region, through increased use of public transport, management of travel demand and the promotion of low emission vehicles.

Other environmental concerns that have been expressed include the spillage of stock truck effluent on the Region's roads, particularly on State Highways and district arterial routes.

While there has been significant maintenance and improvement to the Region's rail network during the last four years, it remains under-utilised and could be better used for freight transport. Current passenger rail services through the Region provide important links but could be under threat in the near future.

The geography of the Region, its climate and position near the Volcanic Plateau, all contribute to the need to ensure that route security on the strategic transport network is maintained and that alternative routes can perform efficiently and safely when needed.

Public transport systems have traditionally aimed to provide for the transport disadvantaged (those without private transport options), rather than also having a role in the management of travel demand. Public transport has the potential to assist in the drive to make better use of current transport infrastructure in the larger towns and cities of the Region, and to support the

retention of residents in rural towns. An ageing population will require an increase in specialised public transport services tailored to meet the needs of this group, which must be affordable.

Land use patterns in the Region are changing, with agricultural intensification placing pressure on rural roading in some areas. The trend to lifestyle blocks and growth in housing and other urban developments is often not integrated with transport planning, and therefore future transport needs may not be well catered for. If the trend to dispersed development on the fringes of our cities continues, more transport demand will be generated.

Over the course of this Strategy it is anticipated that forestry logging will intensify as many areas of planted forests come up for harvest. As most of these areas of forest are planted in the more remote areas of the Region, the effects on local roads not designed for such loads will be significant. Road maintenance and road safety issues on these rural roads will be major issues for territorial authorities to address. Financial contributions from forestry companies may be one way of addressing the increased costs of road maintenance.

These issues are discussed in more detail in the remainder of Chapter 3, as each area of the transport network is described.

## **3.2 The Road Network**

### **3.2.1 Strategic Routes**

State Highways 1, 2, 3 and 4 are the key inter- and intra-regional connectors for the Region, with a number of other State Highways (such as State Highways 43, 54, 56, 57) playing an important but secondary role.

There has been a 40 % increase in traffic on State Highway 1 in the south of the Region since 1990 and this is causing significant safety and congestion issues. The standard of this corridor has long been of concern to the Region.

State Highway 1 in the Horowhenua District and the northern part of Kapiti Coast District is generally a sealed two-lane, two-way highway. It forms part of the country's premier highway, one of the Government's seven Roads of National Significance, the Levin to Wellington Airport Corridor. The route provides access between Wellington (and the South Island) and a major part of the remainder of the North Island. It connects locations of national economic significance in an area where there are few, if any, practicable alternative routes.

This section of State Highway 1 has poor alignment and a number of narrow bridges. A large number of local roads and properties have access onto the highway (which contributes to its poor safety record) and these issues make it very difficult to upgrade the existing route to modern standards. Congestion is becoming significant, particularly near Otaki.

During the past five years, there have been 10 fatal crashes and 35 serious injury crashes requiring hospitalisation on this section of State Highway 1. These numbers have been consistent for the past 20 years, in spite of efforts

to reduce the road toll. It is likely that crashes will increase as traffic volumes increase.

As well, there are large river crossings over the Ohau and Waikawa Rivers and two stream crossings, at Kuku and Waiuiti. Other minor tributaries are crossed by means of culverts. Several areas of State Highway 1, especially around Kuku, are subject to regular flooding due to the low lie of the land and the highway being within the flood plains. When intense rainfalls occur in the Horowhenua District, State Highway 1 traffic is often brought to a standstill, or reduced to a crawl pace as flood waters cross the highway. These flood events occur on a fairly regular basis.

The development of options to address these issues is now being fast tracked by the NZTA in recognition of the priority placed on the Roads of National Significance by the Government.

State Highway	Location	1990	1995	2000	2005	2006	2007	2008	2009	Percentage growth since 1990 (earliest year available)	Difference 2008 to 2009
1	Bulls- Rangitikei River	9,960	11,040	12,240	12,970	13,193	13,170	12,590	12,619	26.7%	29
1	Sanson	8,550	10,310	11,400	12,300	12,290	12,530	11,820	12,211	42.8%	391
1	Levin - Oxford Street	10,490	n/a	12,770	14,930	14,648	15,430	14,889	13,984	33.3%	-905
1	Ohau Overbridge	11,600	12,650	13,410	15,150	14,860	15,350	14,872	15,080	30.0%	208
1	Otaki - North Waitohu	n/a	11,900	13,200	14,750	14,713	15,340	14,614	14,682	23.4%	68
2	Dannevirke North	3,200	4,380	4,650	5,480	5,215	5,380	5,047	5,081	58.8%	34
2	Mangatainoka	3,840	4,500	4,200	4,860	4,555	4,650	4,308	4,398	14.5%	90
3	Manawatu Gorge	4,270	5,570	6,150	6,360	6,697	7,010	6,665	6,782	58.8%	117
3	Palmerston North West at Taonui Culvert	5,770	7,210	7,430	8,860	8,591	8,980	8,864	8,189	41.9%	-675
3	Rangitikei St Overbridge	n/a	n/a	21,660	26,000	24,504	25,180	23,565	19,767	-8.7%	-3,798
3	Wanganui - Cobham	6,040	7,480	7,930	9,020	9,496	9,620	8,942	8,854	46.6%	-88
4	Raurimu	1,130	1,590	1,860	1,730	1,757	1,640	1,742	1,746	54.5%	4
54	Feilding - Aorangi Bridge	10,080	11,030	12,060	13,760	13,524	14,320	13,787	13,725	36.2%	-62
54	Kairanga-Bunnythorpe	n/a	2,580	2,850	3,590	3,616	3,710	3,850	3,649	41.4%	-201
56	Longburn	5,450	6,260	5,640	6,330	6,308	6,040	5,831	5,846	7.3%	15
57	Shannon North	4,660	4,450	5,890	7,330	7,087	7,380	7,626	7,364	58.0%	-262

**Table 3: Annual Average Daily Traffic shows the traffic growth on the Region's State Highways since 1990**

Significant increases in fuel prices in 2008 and a slowing of economic activity in 2009 caused by the global recession had an impact on traffic volumes on many State Highways in the Region, with decreases in a number of areas. It is too soon to know the long-term impact of these factors.

State Highway 1 north of Bulls is part of the main north-south movement of freight along New Zealand's major roading artery. A large amount of freight heads to and from the Port of Tauranga via this route. While average traffic volumes are not overly high compared to other parts of the Region's road network, the high percentage of heavy vehicles it carries means it is important to the regional and national economy.

The part of State Highway 1 known as the 'Desert Road', between Waiouru and Turangi, is often closed during winter due to snow and ice. It is also susceptible to closure because of the threat posed by the active volcanoes in the area. Some parts of the Desert Road alignment are substandard for a road of this importance, especially because approximately 20% of traffic

movements on this stretch of road are by heavy vehicles. Levels of service also differ between Waiouru and Taupo, with the section of State Highway 1 in the Horizons Region having more passing lanes than the section in the Environment Waikato area.

State Highway 2 north to Hawkes Bay has had a significant increase in traffic since 1990; however, the network continues to cope well with the volume. There are two major realignments planned to improve safety and level of service at Manawatu Hill and Papatawa, as well as a number of smaller improvements.

State Highway 3 has also seen a significant increase in daily traffic, with a 59% increase in use of the Manawatu Gorge since 1990. Currently approximately 7,000 vehicles use this route each day and it forms the main link between the east and west of the Region. The Gorge route is prone to closure due to slips in wet weather and when this happens, traffic uses one of two nearby alternative routes, depending on destination.

Currently, State Highway 3 from the west passes through the centre of Palmerston North but a portion of the east-west traffic informally bypasses the city using a network of local roads between the Manawatu Gorge and Mt Stewart to the west of Feilding. The National State Highway Strategy suggests a future triangle of State Highways around Palmerston North comprising State Highway 1 between Levin and Sanson, State Highway 57 between Levin and the Manawatu Gorge (Ashhurst) and an east-west route north of Palmerston North between Sanson and the Manawatu Gorge (Ashhurst). A recent study<sup>13</sup> undertaken by Palmerston North City Council, Manawatu District Council, Horizons Regional Council and NZTA has considered the potential for this proposal alongside a number of other proposals promoted by the road controlling authorities in recent years to develop an integrated road hierarchy for the study area. A summary of the study recommendations is contained in Appendix 4.

Growth on State Highway 3 approaching the Taranaki boundary is less than on the other major highways, but heavy traffic forms a significant component of daily use, probably because of dairying activity in the area. The designation of a future State Highway 3 bypass of Wanganui has been retained, but consideration of a bypass is unlikely within the next 20 years.

State Highway 4 is of considerable importance to the Wanganui and Ruapehu Districts as a corridor between the two areas, as well as an alternative route to the central North Island. This route has its own route security issues, being prone to slips, and has recently experienced a number of serious road crashes. It is also extremely windy but with improvements such as slow vehicle bays, could become increasingly used by commercial vehicles.

State Highway 43, which runs from Stratford to Taumarunui, also functions as an alternative route to and from the Taranaki Region when State Highway 3 is closed, and is of some importance to the Taranaki region, providing its only link to the north east at such times. The Taranaki and Horizons regions will continue to cooperate in promoting the sealing of this route.

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<sup>13</sup> Palmerston North Manawatu Joint Transport Study 2010 (JTS).

State Highway 54, which currently runs from Newbury on the outskirts of Palmerston North to Vinegar Hill, functions as an important alternative route for north-south traffic movements. Part of this state highway is also a key commuter route between Feilding and Palmerston North and its future role has been considered as part of the JTS.

State Highways 56 and 57 both act as important alternative routes for north-south traffic heading to and from the Wellington Region, as well as for inter-regional traffic heading to and from the Hawkes Bay Region south to Wellington. Traffic volumes on parts of these two routes now mirror those on State Highway 1 north of Levin.

The NZTA has identified a significant need to protect the functions of the principal State Highways from land use changes that lead to short, local trips and allow increased numbers of direct access points onto the network.<sup>14</sup>

While the significant effects of future forest harvests will be mainly on local roads, the potential increase of logging vehicles on the State Highway network cannot be under-estimated in terms of the road safety risks. The commercial investigation of hubs for the transfer of logs to rail has been welcomed by the Region.

### **3.2.2 Safety and Level of Service Issues on Secondary Strategic Links**

In addition to the State Highways, a number of local roads have been identified as strategically important to the Region, including as alternative routes for east-west and north-south links or for tourism purposes. Most of these routes have low volumes of traffic; however, they become important in the event of road closure or for tourist access and therefore need to be safe and provide an adequate level of service when necessary. Most of these routes identified have outstanding safety and level of service issues to be resolved during the lifetime of this Strategy.

The Saddle Road, which connects Ashhurst and Woodville, is currently the most used alternative east-west route when the Manawatu Gorge is closed and carries approximately 60% of traffic at those times. The road currently has no major safety or level of service issues, however there may be a need to strengthen some bridges should heavier trucks, through the implementation of the Vehicle Dimensions and Mass rule, be permitted to use this road.

The Pahiatua Track carries approximately 1,200 vehicles per day and provides a strategic connection from the west to the south-east of the Region. It also serves as a secondary alternative route when the Manawatu Gorge is closed, carrying approximately 40% of the Gorge traffic. A need has been identified to ensure that the Track is of a suitable standard to cope with its role as a secondary alternative and as a strategic east-west link to the south-east portion of this Region and the Wairarapa. Tararua District is proposing a safety realignment of this route between Pahiatua and its district boundary with Palmerston North City (at the road's summit).

<sup>14</sup> Ensuring appropriate land use for the functions of nearby routes is also relevant to other sections of the roading network, as rural or urban feeder routes to the strategic network may also be adversely affected by land use decisions, and this could have flow-on effects for strategic routes.

Safety has been identified as the primary reason for this project to proceed because there are a number of tight hairpin turns and the road is also used as a training route for cyclists, so widening the road width will increase the safety to all road users. The Regional Land Transport Programme (RLTP) 2009-12 prioritised this project as the highest priority local road project in the Region over the period of the programme. However, the project was only given a funding priority of 'Possible' in the National Land Transport Programme 2009-12, which means that it is unlikely to warrant funding during this period.

The Napier-Taihape Road also played an increased role as an alternative east-west link during the 2004 floods, and could have a significant role as a tourist and freight route once sufficiently upgraded. Sealing of the road commenced in the 2007-08 year and the Rangitikei District portion of the road is due for completion in the 2009-10 year, whereas the Hawkes Bay portion is due for completion in 2011-12.

Route 40 has also been identified as a significant link between the Ruapehu District and Taranaki to the west, particularly in its role as an alternative to State Highway 3. Widening of the pavement on the route will increase the safety of the road. Ruapehu District is due to complete the seal extension of this route sometime between 2015-16 and 2018-19.

The Whanganui River Road has been identified as a potential tourism route between the Wanganui and Ruapehu Districts but is little changed from when it was constructed early last century. The preferred option for the road upgrade enables the development of the route in stages to improve safety and meet current traffic demands, while providing a minimum standard to facilitate growth in visitor and commercial traffic. Sealing of this route commenced in 2006-07 and is anticipated to be finished in the 2011-12 year.

### **3.2.3 Urban Areas**

Palmerston North, as one of the few districts with predicted population growth over the next 20 years, and as the Region's educational and commercial centre, will experience increased pressure on some of its key transport networks. A number of key arterial routes are experiencing some congestion at peak times, and this needs to be managed adequately into the future. Palmerston North has a significant and growing freight distribution industry and the strategic network in and around the city needs to cater effectively for this role now and into the future.

The current issues for the strategic links around this area are discussed below and have been considered in detail in the JTS. The study's objective was to develop an evidence-based 30 year strategy for an integrated strategic transport network within the Palmerston North/Manawatu area that meets local, regional and inter-regional economic and social objectives.

#### **3.2.3.1 Feilding to Palmerston North**

The heaviest traffic volumes within the study area, outside the Palmerston North urban area, are in the Feilding to Palmerston North corridor. There are currently three routes into Palmerston North, via Rangitikei Line, Milson Line and Railway Road, connecting across Tremaine Avenue to Rangitikei Street,

Ruahine Street and Vogel Street respectively. Traffic volumes on this corridor are expected to grow, requiring a road hierarchy that continues to achieve good distribution of traffic into Palmerston North and is not inconsistent with the possible closure of Milson Line.

### **3.2.3.2 North East Industrial Zone**

The NEIZ, located to the north of Palmerston North Airport, is planned as a major industrial and distribution area. To function effectively, the NEIZ needs to be serviced by an efficient road network providing good access locally to Palmerston North and regionally to the rest of the North Island.

### **3.2.3.3 Rural Ring Road**

The Palmerston North Transportation Management Plan proposes a rural ring road around Palmerston North. The JTS defines the route and function of this proposed ring road as part of the roading hierarchy for the study area.

### **3.2.3.4 Upstream River Crossing**

Palmerston North City Council (PNCC) has identified a need to provide additional capacity across the Manawatu River given the long-term constraints of the Fitzherbert Bridge. The new bridge would also function as:

- an alternative commuter route between Palmerston North on the north side and Aokautere/State Highway 57 on the south side of the river
- a direct route between Feilding and Bunnythorpe on the north side, and Aokautere/the Pahiatua Track on the south side of the river
- part of an integrated road network on the eastern side of Palmerston North connecting to the proposed Eastern Corridor as part of the rural ring road

PNCC has adopted the option of an upstream crossing between Te Matai Road and Staces Road as its preferred scheme for a new bridge and made provision for this project in its 2009-19 Long-term Council Community Plan. However, the timing of the new bridge is uncertain as no funding commitment has yet been made by the NZTA, though it has been recognised in the development of options and the selection of a preferred road hierarchy. The JTS predicts that growth on the Palmerston North network will make construction of the bridge more crucial over the next ten years.

### **3.2.3.5 Eastern Corridor**

The possible functions of an Eastern Corridor within the Palmerston North/Manawatu area are to provide:

- Alternative commuter route between Feilding and Palmerston North
- Link between Feilding/Bunnythorpe and the proposed new upstream bridge

- Preferred route for inter-regional traffic between Bunnythorpe and the Manawatu Gorge
- North-south arterial on the eastern side of Palmerston North to serve local industrial and residential development, and possibly ease access to the CBD and inner city.

Wanganui, as the other major urban centre in the region, is about to commence a transportation study of its urban area to identify key issues and solutions for the future. Major considerations include the reorganisation of the road network in the CBD, the future role of the Dublin Street Bridge and the role of alternative modes of transport in Wanganui.

Key issues in districts are primarily associated with the Region's strategic routes or with rural roads, and have been discussed under those headings.

### 3.2.4 Rural Roads

Rural roading networks are critical to the Region's economic success, providing access to farming and forestry areas and service centres. The seven territorial authorities that manage these roads face increasing challenges to maintain networks that are appropriate for the heavy vehicles needing to use them to bring out primary products. Often they have a small rating base and a significant length of road network to maintain. These authorities also face increasing costs associated with the maintenance of routes that have a more strategic inter-district role.

For example, Wanganui District Council has estimated that more than 50% of the district's forest estate will reach harvestable age in the period 2020-2030<sup>15</sup>. Logging of these forests is anticipated to generate approximately 270,000 truckloads of harvested logs over this period with most of these movements on low volume rural roads en route to State Highways 1, 3 and 4. Maintenance to cope with the effects of this traffic will need to be prioritised within Wanganui District Councils programme of works.

The growing tourism industry in the Ruapehu and Wanganui Districts may also impact on the vehicle numbers and safety of rural roads in these districts.

### 3.3 The Rail Network and Services

While the Region is quite well served with regard to rail infrastructure, use of the network for both freight (as a proportion of overall freight volumes) and passenger services has fluctuated in recent years.

Passenger services in the Region are now limited to the Capital Connection (a weekday commuter service between Palmerston North and Wellington) and the Overlander service between Wellington and Auckland along the North Island Main Trunk line (NIMT) that operates seven days a week in summer and three days a week in winter.

<sup>15</sup> Forestry Effects on Low Volume Rural Roads – 30 year Regional Forecast Study, Wanganui District Council and New Zealand Transport Agency, 2009.

By the end of 2010 it is anticipated that KiwiRail will have finished the double tracking and electrification project of that part of the NIMT line between Paraparaumu and Waikanae. This will enable the introduction of a greater frequency of passenger train services from Wellington to Waikanae, and could jeopardise the viability of the Capital Connection service as many passengers board the service at either Paraparaumu or Waikanae.

One of the specific actions in the 2006 RLTS involved the daylighting of tunnels in the Manawatu Gorge and at Kai Iwi on the Taranaki line to allow the passage of modern Hi-Cube containers. The height restrictions were a limiting factor for the further development of rail freight in the Region, requiring significant numbers of these containers to be transported by road through the Manawatu Gorge, and limiting freight opportunities to and from Port Taranaki in New Plymouth. These two projects have now been completed and in the nine months following completion, more than 4,000 Hi-Cube containers passed through the Gorge via rail.

There has also been an increase in net tonne kilometres travelled on the Marton-Stratford and Palmerston North-Wanganui lines between 2007-08 and 2008-09. These increases have largely been because of stronger dairy volumes. Fluctuations in international dairy commodity prices will largely determine the tonnage transported in the future.

In May 2010 the Government announced increased investment in KiwiRail through the 10-year Turnaround Plan. The plan places most emphasis on increasing rail freight volumes and revenue; however, investment will also be made into improving current passenger service performance. The main focus of the plan is for travel times to become more relevant and reliable. KiwiRail will also be looking at the viability of some minor lines that currently carry little or no traffic, including two lines in the Region, the Stratford-Okahukura Line and the Northern Wairarapa Line. A decision on the future of these lines will be made in 2012.

### 3.4 Public Transport

Considering its geographical size and low population density, the Region is relatively well serviced by public transport, with a higher annual ratio of passengers carried per head of population than some other similar regions.

Increased funding for public transport from Central Government during the early 2000s enabled the introduction of a number of new services, and others have had significant improvements in terms of quality and coverage. Wheelchair accessible buses now operate on all urban services in Palmerston North and Wanganui.

There are regular urban bus services operating in Palmerston North and Wanganui, and a number of daily commuter services operate between centres<sup>16</sup>. In recent years the Regional Council has increasingly sought additional funding for passenger services from organisations which stand to primarily benefit from these services. Services successfully introduced in this

<sup>16</sup> The Regional Passenger Transport Plan (RPTP) 2006 specifies the public transport services to be provided in the Region and contains details of these. The RPTP will be reviewed after the adoption of this Regional Land Transport Strategy.

manner include the UCOL and Massey Unlimited Access Schemes in Palmerston North and Wanganui, which have significantly increased bus use by students and staff of these organisations.

However, public transport services in the Region have traditionally focused largely on the provision of services for the “transport disadvantaged“, and while the number of passengers carried has steadily increased since the early 1990s (see Figure 3), the proportion of people using public transport as an option for commuting to work has declined from 3% to 1.67% over the last 25 years. The ageing of the Region’s population (which is particularly apparent in some of the smaller towns) will exacerbate the need for public transport and specialised mobility transport services.

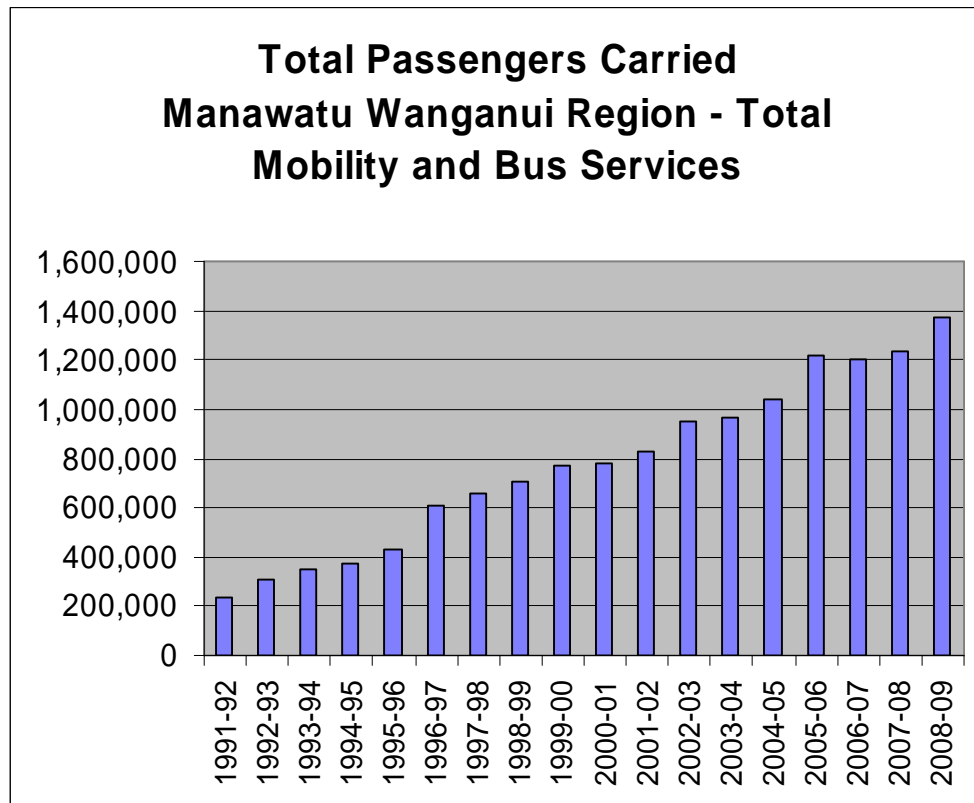
The LTMA supports a wider role for public transport, particularly in relation to the management of travel demand and in the protection and promotion of public health. Improved use of public transport is also consistent with the achievement of one of the key objectives of the National Energy Efficiency and Conservation Strategy, which is to “improve the provision and uptake of low energy transport options”. This is particularly relevant to the urban centres or between satellite towns and urban centres, where increasing congestion is apparent at peak times on key routes and where the need for additional road capacity could possibly be postponed through the provision of better public transport services catering to commuter needs. This could have flow-on environmental and health benefits. This Strategy therefore contains proposals that aim to better focus current services for commuter use.

Access and mobility issues are significant for rural residents and those in rural centres that are too small to support traditional scheduled bus services. Without some realistic options for public transport, small communities may struggle to retain residents in the face of a need to be near work, study, hospitals and other facilities. The reduction in medical services in rural towns has exacerbated the need for transport options to larger centres. Taxi services also have a very important role to play in the Region, providing transport to essential services for those with limited mobility. The Region will continue to support the provision of Total Mobility<sup>17</sup> services where possible wherever an appropriate operator is available. As the population ages, the demand for such services will increase and funding could become an issue.

There is a need to investigate other methods of providing public transport options, perhaps through utilising existing capacity on commercial services or community resources. Such investigation forms part of the proposed improvements to public transport outlined in this Strategy. Funding of public transport has become a challenge with the release of the Government Policy Statement on Land Transport Funding (GPS) in 2009. The GPS directs public transport subsidies to areas of significant congestion and means that there is little funding available for public transport improvements outside the main urban centres. Alternative sources of funding for public transport, such as employer subsidy schemes, may become increasingly important in the future.

Figure 3 shows the growth in patronage on all subsidised transport services in the Region over the last 10 years.

<sup>17</sup> Total Mobility is a subsidised taxi scheme for those who have a disability preventing them using traditional public transport.



**Figure 3: Growth in patronage on all subsidised transport services in the Region over the last 18 years.**

### 3.5 Freight Movement

Planning for future freight movements both within and through our Region is an important issue for consideration in this strategy. There is a direct relationship between economic growth and freight growth and if the Region is to achieve its economic development objectives, there must be an effective and efficient system of freight transport.

The growth of heavy vehicle movements on the Region's State Highways has kept pace with the overall traffic growth experienced in the last 15 years. The proportion of freight carried by rail has declined over this time, although actual tonnages transported by rail have continued to grow.

While much of the Region's freight movement will continue to be by road, rail will play an increasing part. As recently as 2006, there were a number of infrastructure restrictions on the rail network through the Region which limited the amount of freight that could be transported by rail. Significant upgrades through the Manawatu Gorge and at Kai Iwi on the Marton-New Plymouth line, have allowed modern containers to be transported by rail and this has already had an influence on the freight tonnages being transported through the Region, this is further discussed under the rail section in 3.3. KiwiRail is advancing the use of the Palmerston North rail yards as a distribution point for rail freight heading through and out of the Region.

The Region does not have a commercial seaport operating within its boundaries; however, freight is moved to and from Wellington, Hawkes Bay, Taranaki and Bay of Plenty ports. The NZTA has recently commissioned work to analyse the movement of freight within the Region and this will further detail the findings of the National Freight Demands Study<sup>18</sup>, providing an analysis of freight demand and patterns within the Region and to neighbouring regions, especially to the Ports of Taranaki and Napier.

In March 2010, the NZTA released a Central Region (Gisborne, Hawkes Bay, Manawatu-Wanganui and Taranaki regions) Freight Analysis which highlighted the importance of Palmerston North, in particular, as the freight hub for the lower North Island. The Palmerston North to Gisborne Rail line and the NIMT line intersect in Palmerston North at the lower North Island rail distribution centre. State Highway 1, State Highway 3 to Taranaki and State Highway 2 to Hawkes Bay also intersect in the Region.

The study concluded that the Region is a net importer of freight, that is, more freight enters the Region than leaves. Inter-regional freight moves into the Region from the following areas (in order of significance):

- Wellington
- Bay of Plenty
- Hawkes Bay
- Auckland

The report highlights the key points of leverage for the Region. One of these is the opportunity for Palmerston North to further develop its potential as a freight hub. As a result of Palmerston North being at the centre of road and rail transport in the lower North Island two important commodity flows become evident:

- a. Palmerston North becomes a key staging point for high value imported and domestic freight between Auckland and Wellington or between Auckland and the South Island.
- b. Palmerston North has good access to hinterlands that produce New Zealand export commodities and provides the staging point for export of these out of the ports in Napier, New Plymouth and Wellington, or even Auckland and Tauranga. In particular, it is the staging point between Fonterra output from the Whareroa plant in Hawera and export ports in Napier, Auckland and Tauranga.

The Central Region Freight Analysis report also states that a key challenge for increasing the distribution ability of the Palmerston North area is to ensure the availability of well priced large tracts of land for storage areas and to ensure that these are located where efficient access by both road and rail is maintained.

Foodstuffs Ltd has recently commenced operating from its extensive distribution centre in the NEIZ on the outskirts of Palmerston North. The warehouse generates 350 heavy vehicle movements per day dispersing north,

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<sup>18</sup> Ministry of Transport, the Ministry of Economic Development and Land Transport New Zealand, 2008.

south and east across the lower North Island, as well as a further 650 light vehicle movements in the local vicinity.

Progressive Enterprises also has plans for expansion of its distribution operations out of Palmerston North although the extent of this expansion is not yet known. (The Palmerston North distribution centre is one of three operated by Progressive in New Zealand, the others being in Auckland and Christchurch).

Both the Palmerston North to Napier and Marton to New Plymouth rail lines play an important role in the transport of milk from dairying districts of the Region to major processing facilities. The 'Milk Train' saves 128 tanker movements per day from the Tararua District to processing facilities at Hawera, for more than half of each year. Other products carried by rail through the lower North Island include bulk and finished milk products, containerised meat and canned goods, fertiliser and urea.

Significant issues for road freight transport in the Region relate to changing land use and increasing intensification, which has increased the number and size of heavy vehicles using rural roads that are not well suited to this purpose. This results in increased maintenance and renewal costs for territorial authorities. As the Region's forests come up for harvesting, this use will intensify in certain areas and will need to be carefully managed.

The National Freight Demands Study predicts that the freight requirement for commodities will increase by about 70-75% by 2031 in terms of tonnes lifted and tonne-kilometres transported nationwide. The study makes forecasts by mode, however, these do not take into account any specific Government interventions that may take place in order to change modal share.

The authors predict that the modal share for rail will remain broadly constant at 15% of all tonne-kilometres. However, in actual terms there would naturally be a very significant increase in actual tonnage carried, with some products being more likely to be transported by rail. For example, dairy products transported by rail could increase by 85%, well above the overall increase in tonne-kilometres of 70%. Given the Region's prominence in both the production and processing of dairy products, this could mean a significant increase in the use of the rail network for dairy freight over the next 20 years. The Government's announcement in May 2010 of a 'Turnaround Plan' for KiwiRail reinforces the need for a well performing rail network to cater for this anticipated growth.

Given the Region's natural advantages as a hub for freight transshipment, coupled with the expected nationwide increase in freight movement, significant strain could be placed on the Region's networks if they are not future-proofed through adequate forward planning and route protection.

### **3.6 Cycling and Pedestrian Activity**

While Palmerston North retains one of the highest cycling rates in New Zealand due to its flat terrain and student population, Statistics New Zealand Census data shows that journeys to work by cycle have declined significantly

in both Wanganui and Palmerston North, with the percentage of people walking remaining fairly static.

Cycling to secondary school has shown a large decline in Palmerston North, and although walking appears to have increased in popularity, the percentage of secondary students transported by car more than doubled between 1984 and 1997.

Wanganui has seen a similar decline in cycling and it is reasonable to expect that other smaller urban centres in the Region have also experienced this decline.

The Government currently proposes to raise the legal driving age from 15 to 16 and to increase the minimum learner licence period from 6 months to 12 months. This may have a positive effect on the amount of school children walking and cycling to school.

With more than 20% of New Zealand adults found to be clinically obese<sup>19</sup>, this decline in active modes of transport to work and schools is of significant concern.

Table 4 and 5 exemplify these trends.

	1986	1991	1996	2001	2006
Car Driver	66%	69%	68%	72%	69%
Car Passenger	6%	7%	6%	5%	5%
Public Transport	3%	2%	2%	1%	2%
Cycle	13%	11%	10%	7%	5%
Walk	9%	8%	8%	8%	8%
Work at Home	3%	3%	6%	7%	4%

**Table 4: Mode of travel to work in Palmerston North<sup>20</sup>**

	1984	1997
Car	8%	19%
Public Transport	4%	13%
Cycle	72%	45%
Walk	16%	23%

**Table 5: Mode of travel to secondary school in Palmerston North**

<sup>19</sup> A Portrait of Health: Key Results of the 2002-03 New Zealand Health Survey.  
<sup>20</sup> Statistics New Zealand Census Data.

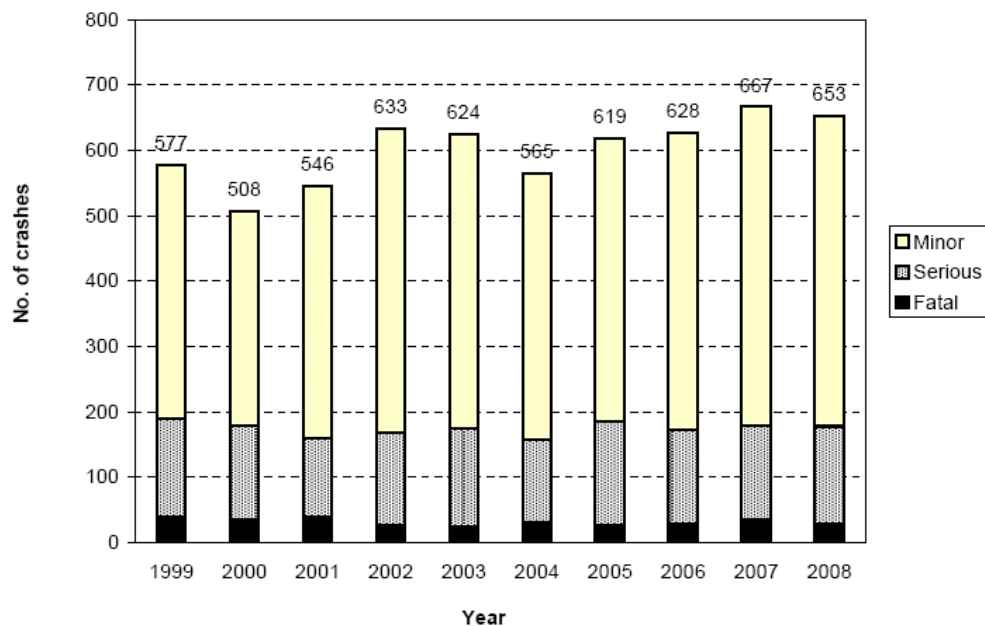
In addition to the health benefits of these modes of transport, increased use of walking and cycling has the potential to help relieve the congestion that is experienced on some of the key arterial routes in both Palmerston North and Wanganui at certain times of the day. It could help reduce the phenomenon known as “chaos at the school gate”, which is a significant safety issue in some areas. Improving uptake of these modes is consistent with one of the key transport objectives of the National Energy Efficiency and Conservation Strategy, which is to “improve the provision and uptake of low energy transport options”.

### 3.7 Road Safety

After a significant reduction overall in road deaths in the Region in the 1990s, road fatalities have remained fairly static throughout much of the decade. However, there is an increasing trend for overall injury crashes since 1999.

The annual social cost of crashes<sup>21</sup> to the Region in 2008 was \$285.89 million. Because of the trend to increasing numbers of crashes, renewed effort will be needed if the Region is to contribute to the national targets laid out in the National Road Safety Strategy, *Safer Journeys 2020*.

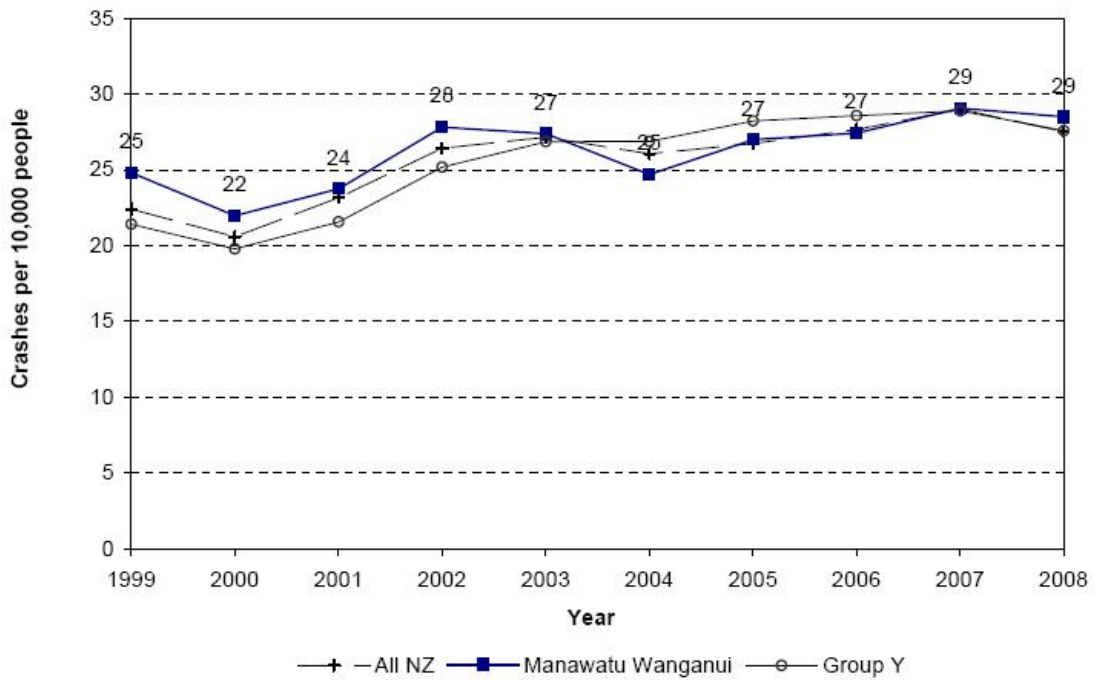
Figure 4 shows the trend in injury crashes on regional roads for the last 10 years.



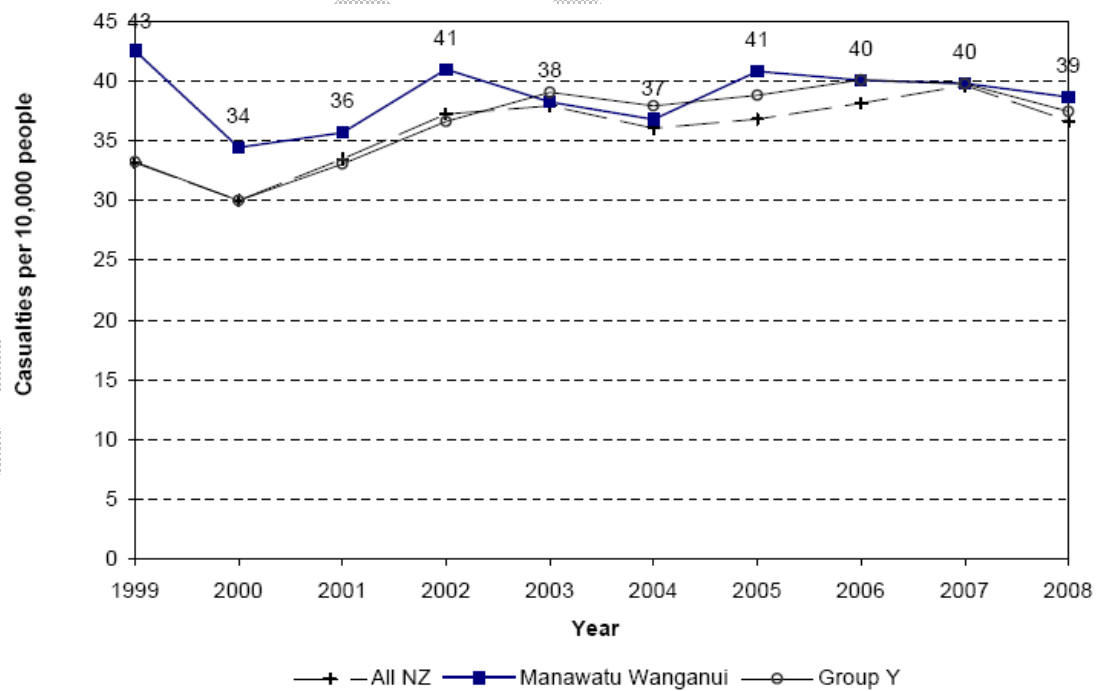
**Figure 4: Trend in injury crashes in the Manawatu-Wanganui Region**

Figures 5 and 6 further highlight that the 10-year trend for injury crashes is upwards; however, when compared to a comparable group of regional authorities (group Y in Figures 5 and 6), the trends since 2004 have been either below or comparable. On the whole the Region has generally been above the national average for injury crashes for the past 10 years.

<sup>21</sup> This places a monetary figure on road crashes to the nation. It includes loss of life and life quality, loss of productivity, medical, legal and court, and property damage costs.



**Figure 5: Injury crashes in Manawatu-Wanganui Region compared with national average**



**Figure 6: Casualties per 10,000 people in Manawatu-Wanganui Region compared with national average**

Figures 4, 5 and 6 are taken from the “New Zealand Transport Agency – Manawatu-Wanganui Region Road Safety Report 2004-08.”

Some of the main contributing factors to road crashes in the Region are:

- Speed, including speed too fast for the conditions and loss of control as a consequence of speed
- Fatigue, a particular problem on State Highway 1 two to three hours north of Wellington
- Intersection crashes, which occur at a higher rate regionally than the national average on both rural and urban roads
- Vulnerable road users such as pedestrians, motorcyclists and cyclists are more likely to be injured or killed in this Region than would be expected nationally
- A significant proportion of crashes in our Region involve unlicensed or partially licensed drivers
- Older drivers and young (15 to 25 year old drivers) are at high risk of crashing in some areas
- Distraction is a major cause of crashes

Alcohol also remains a significant contributor to crashes and Police are increasingly noting the use of drugs such as methamphetamine in connection with crashes in the Region, although this has yet to show clearly in the crash statistics produced by the NZTA. In late 2010 NZTA released an initial Communities at Risk register which identified communities with significantly higher than average risk of crashes involving certain causal factors. This and the Safer Journeys 2020 document will guide investment in road safety over the next ten years.

### 3.8 Rising Oil Prices

Within the timeframe of this Strategy it is more than likely that we will face what is commonly referred to as “Peak Oil”. This refers to the likely peak in oil production and then subsequent decline. Estimates for when this will happen vary widely, however the likely effect is that oil prices will rise dramatically as demand outstrips supply. The regional transport network will need to be resilient to meet the impacts of higher oil prices. These price rises are likely to be sustained, unlike the recent spikes that have tended to be temporary in nature. The NZTA<sup>22</sup> has forecast that prices for petrol and diesel will rise to approximately \$2.80 and \$2.50 per litre by 2014. It is predicted that this will suppress total vehicle travel below current levels until 2016. In the longer term, the Auckland Regional Council<sup>23</sup> has forecast that by 2040 petrol will cost around \$4.00 per litre.

Given these probable dramatic and sustained increases in the price of petrol and diesel, it is likely that transport and land use planning will have to undergo a paradigm shift. This will be required as many people will move away from being reliant on private vehicles for the majority of their transport needs, to using alternative forms of transport such as public transport, walking, cycling

<sup>22</sup> “Managing transport challenges when oil prices rise”, NZTA research report 357, August 2008.

<sup>23</sup> Price forecast for transport fuels and other delivered energy forms, Auckland Regional Council, Regional Land Transport Strategy Working Report No. 5, January 2009.

and working from home when possible. The increase in public transport use in winter 2008, when petrol spiked to about \$2.20 per litre, showed that there is a direct correlation between high fuel prices and increased uptake of public transport and other alternatives to private vehicle use. Freight may move to other modes such as rail and coastal shipping.

Alternative transport technologies, such as biofuels and electric vehicles, are expected to only have marginal effects on the demand for oil. The large-scale uptake of these fuels and technologies is unlikely to happen in the near future, for example, the Ministry of Transport has estimated that only 6% of the vehicle fleet will be electric by 2028. Biofuels are also unlikely to offset oil use because of the limited amount of land available to grow biofuel crops.

However, there are a number of responses that can be implemented in shorter to medium timeframes in order to reduce dependence on oil-based transport. Many of these responses are consistent with the current New Zealand Transport Strategy. The NZTA research report "Managing transport challenges when oil prices rise" outlines a number of responses to this challenge that could be considered if appropriate. Some of these responses, such as carpooling/carsharing schemes and travel plans, are relatively inexpensive to implement. Others would be more expensive to implement, such as transit-oriented development and transforming roads into streets.

### **3.9 The Environmental Effects of Transport**

The transport system can adversely affect the environment in a number of ways, both through direct local impacts and via its contribution to global environmental impacts.

Local impacts can relate to local air quality, damage to ecological and cultural sites, water quality impacts through construction effects or via run-off from roads, community severance issues and noise. The contributions of the regional transport system to global impacts, such as the level of CO<sub>2</sub> emissions, must also be considered as part of the national response to this challenge.

While this largely rural and un-congested region may not present many visible and significant local environmental effects from its transport system, it nevertheless contributes to the national picture and reflects trends across New Zealand to some degree. Section 75 of the LTMA requires the RLTS to contribute to ensuring environmental sustainability and must also avoid, to the extent reasonable in the circumstances, adverse effects on the environment. Therefore, while the environmental effects of the transport system may not be immediately visible and pressing in this Region, this RLTS must consider how the Region can contribute to New Zealand's environmental sustainability goals.

There are few documented significant and enduring local environmental impacts from the transport system in this Region. Transport emissions are not major contributors to areas of poor air quality (air quality is a particular problem in Taihape and Taumarunui because of domestic emissions and geographic features) and there are no recorded instances of persistent noise issues caused by the land transport system, other than the temporary effects of infrastructure construction. However, stock truck effluent spillage is noted

on a regular basis and is a particular problem on certain routes through the Region.

Nevertheless, this Region's contribution to New Zealand's growing transport emissions cannot be ignored. The largest absolute increase in greenhouse gas emissions in New Zealand over recent years is from road transport, with CO<sub>2</sub> emissions from the transport system having increased by 76% since 1990.<sup>24</sup> Not only do New Zealanders each travel more (vehicle kilometres travelled per person increased by 3% between 2001 and 2007), our vehicle fleet is continuing to age, which means that our vehicles produce more harmful emissions than a newer fleet would.

The level of vehicle kilometres travelled (VKT) per GDP Dollar is also increasing and New Zealand has the highest VKT per unit of GDP in the OECD<sup>25</sup>. This means that we travel and transport goods more to produce each unit of GDP than all other OECD members. In the Horizons Region, VKT has followed similar trends with overall growth of 11% over the last five years.

The Ministry for the Environment's latest greenhouse gas inventory shows that New Zealand's emissions are increasing, with greenhouse gas emissions in 2007 about 22% higher than they were in 1990. Transport sector emissions are continuing to grow rapidly and now make up almost 19% of New Zealand's total greenhouse gas emissions. If nothing is done to reduce emissions, total emissions could be 30% over its Kyoto Protocol target by 2012 and New Zealand will need to take responsibility for these emissions in a number of ways, such as by purchasing emission units on the international market or using forest sink credits.

NIWA (National Institute of Water and Atmospheric Research) projections<sup>26</sup> for the effects of climate change indicate that there could be some significant changes to the climate over the course of the next 30 years. New Zealand's average temperature is forecast to rise by 1°C. Frosts could halve in the central plateau (excluding the alpine areas) from the current 30-40 frosts per year, there will be more hotter days over 25°C and there will be an increase in the strongest winter winds. However, there could be less frequent westerlies in summer and autumn. Heavy rainfall is expected to get heavier and/or more frequent. By the end of the century a 1-in-100 year flood event could become a 1-in-50 year event. This will have implications for the Region's transport network; flooding, road closures, slips and network damage are likely to become more frequent, and it will be more important than ever to ensure that the transport network is resilient to such events, with appropriate alternatives in place.

The Government's primary response to global climate change has been the establishment of the Emissions Trading Scheme. This involves the trading of emission units (sometimes referred to as 'carbon credits') on the international market between participants on the scheme. The transport sector will become part of this scheme from 1 July 2010 which will cover all liquid fossil fuels used in New Zealand. It is expected that the cost of emission units will be passed

<sup>24</sup> Ministry for the environment website.

<sup>25</sup> "Vehicle kilometres travelled by road: Environmental Report Card March 2009", Ministry for the Environment 2009.

<sup>26</sup> NIWA Climate Change Projections for New Zealand, August 2008.

onto the consumers of liquid fossil fuels. At current prices the price of fuel is expected to rise by around 3.5 cents per litre.

The Government has also put in place other policies to tackle transport emissions and climate change. For instance, it is incentivising the early uptake of light electric vehicles by exempting them from road user charges. There are also two incentives regarding biofuels: the waiver of excise duty for bioethanol until 2012 and grants to incentivise the production of domestic biodiesel production.

### **3.10 Integration of Transport and Land Use Planning**

The number of cars registered in the Region grew by 19% between 2000 and 2008. Coupled with high vehicle ownership, the way that cities and towns have developed over the past 50 years is a significant factor contributing to traffic growth on certain sectors of the network.

The mobility offered by motor vehicles supports the growth in low density housing around the periphery of urban areas. Similarly, there is a dispersal of jobs and services from city and town centres to other locations. Such changes are associated with increased use of motor vehicles and make it increasingly difficult to provide other viable transport options. There has also been an increase in the number of rural residential developments and lifestyle properties throughout the Region and this encourages more vehicle trips.

The ability to choose from a variety of transport modes is being diminished by this trend of dispersed land development. As residential areas move further from urban focal areas the distances become too great to provide viable public transport or for residents to walk or cycle.

Therefore it is vital to integrate land use planning with transport planning to ensure that the land transport system is protected, affordable and able to provide appropriate access to facilities by a variety of modes. Careful planning over the long term will help to reduce the need to travel and maximise the efficiency of the transport network. Planning for growth and determining land use must go hand in hand with plans for the Region's transport networks; this will ensure that networks and future corridors are protected from inappropriate land use and vice versa, that development takes place in an appropriate way with the best possible access to transport networks, and that transport-inefficient development is minimised.

### **3.11 Summary of Key Transport Issues in the Region**

- the standard and capacity of State Highway 1 to the south of the Region
- the need to cater for anticipated population and economic growth in the Palmerston North and Manawatu area, and facilitate this area's role in freight distribution
- rationalisation of the State Highway 3 route between Mt Stewart and the Manawatu Gorge to remove inefficiencies
- the need for continued improvements to road safety in the Region

- the need to complete improvements to secondary strategic links that are playing an increasing role as east-west links and alternative routes (e.g. Pahiatua Track, Napier-Taihape Road, Route 40) and for tourism/economic development purposes e.g. Whanganui River Road
- increasing pressures on the Region's rural roading network, particularly with increased forest harvesting and agricultural use and potential increases in tourism traffic
- under-utilisation of and the need to retain existing rail infrastructure and services
- the need to improve the provision and uptake of public transport services in urban areas, particularly for commuter use and between centres of population
- the need to provide cost-effective and appropriate public transport in small towns and rural areas
- planning for anticipated future freight growth and its movement throughout the Region by both road and rail
- reversing the declining trend of walking and cycling activity
- planning for the effects of rising oil prices over the lifetime of the Strategy
- mitigating the negative environmental effects of the regional transport system

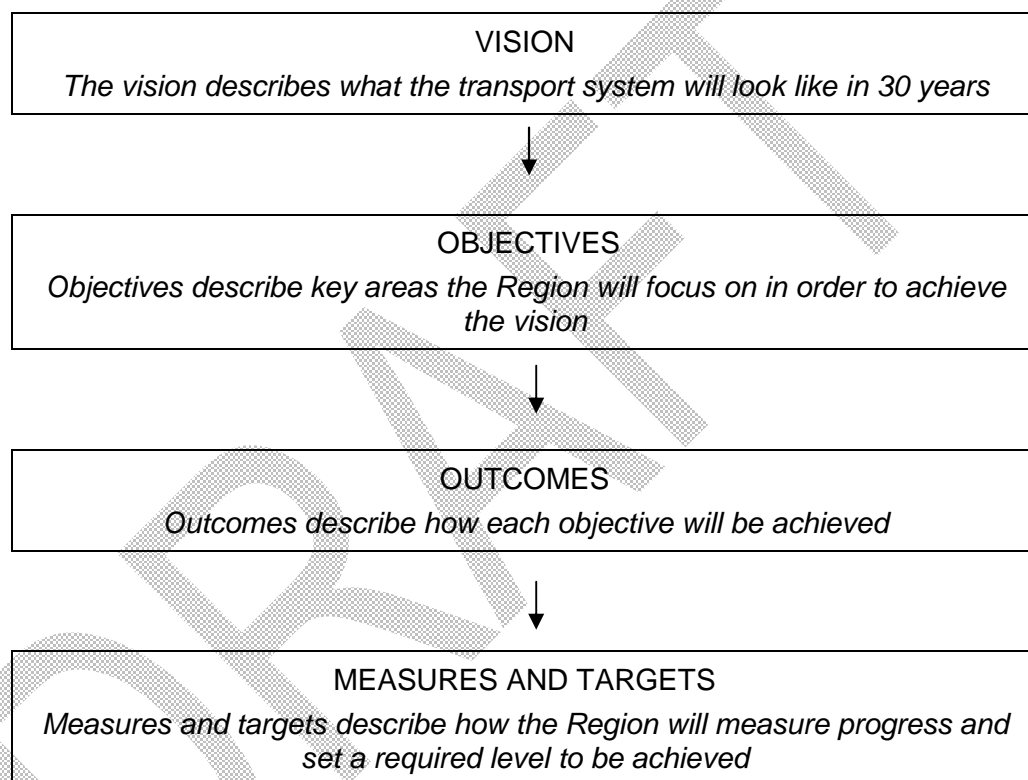
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## 4. Vision, Objectives and Targets for the Region's Transport System

### 4.1 Introduction

The vision and objectives for the Strategy are described in this chapter, along with specific outcomes that will contribute to the objectives, measures and targets for these outcomes.

The diagram below sets out the relationship between these aspects of the strategy



### 4.2 Vision and Objectives

A vision is an ideal to strive for, and may take some years to achieve. This Strategy is only the first step to achieving the vision, and future revisions of it will refine the steps needed to work towards this. The vision looks 30 years ahead, to 2040.

The vision for transport in the Region in 2040 is:

**A safe, sustainable and resilient transport system that supports economic development and lifestyle choices, with strong connections to national corridors.**

In developing this vision the Region wished to emphasise its strategic location in the lower North Island at the convergence of several major State Highways and rail lines, and the potential this offers the Region as a freight hub. The vision statement also emphasises the ease with which we are able to travel about the Region, and our proximity to other major centres such as Wellington, Taranaki and Hawkes Bay.

Five key objectives have been proposed. These define the key areas the Region will focus on to achieve the vision. Inevitably, some of these objectives are linked and methods to address one objective may also benefit another.

There is also the potential for methods focusing on one objective to adversely affect another and care must be taken to ensure that these effects are carefully evaluated and weighed up. As an example, there is potential for methods supporting economic growth to adversely affect the environment, and careful evaluation of the overall benefits and risks is required.

### **Objective 1**

#### **A resilient and effective transport system that supports economic growth**

This objective recognises the crucial role that an effective transport system plays in supporting the Region's economy, while acknowledging that this growth and effectiveness cannot be achieved without a system that has reliable, integrated links to the major corridors which cross our Region. It also recognises the Region's unique character as a natural hub for these major corridors to the north, south, east and west.

#### **What will our Region be like in 2040?**

The Region attracts business and Government investment because of its effective transport links and convenient access in all directions, and operates effectively as a hub for the redistribution of freight via seamless links to the national networks. These links also enhance a growing business and recreational tourism industry, and support significant educational and military facilities.

Residents are attracted by jobs, a convenient lifestyle and the ability to easily travel around and out of the Region for business and recreational activities. Primary producers can move their products to markets or for processing (both within and out of the Region) with the minimum of delay and cost, and a great deal of reliability.

## Objective 2

### **A multi-modal transport system that provides access to work, social and recreational opportunities for all sectors of the community**

This objective recognises the varied transport needs of the Region's residents, some of whom have a high degree of choice and flexibility, and others who have limited options for getting around. It acknowledges the need for increased choice of personal transport in order to reduce dependence on car travel, and recognises the Region's desire to see all residents able to participate fully in daily activities and live healthy, fulfilling lives. It also recognises the need for the transport system to be adaptable to changing circumstances and to respond to the needs of the Region's varied communities.

#### **What will our Region be like in 2040?**

Many people can choose from a range of transport options (for travel within and out of the Region), and opt for alternative modes such as walking, cycling and public transport when appropriate. In many cases, these methods are more convenient than private car use, due to improved facilities and the ability to move quickly and safely through busy streets. People can use more than one transport mode to make a journey.

Innovative practices such as school and business travel plans and increased public awareness mean people think about whether they really need to take a car for every journey. Those with fewer choices will nevertheless move around easily and participate fully in work, social and recreational activities.

Transport systems change and adapt as external influences such as rising fuel prices or global shortages occur, or in response to changing community needs.

## Objective 3

### **A safe transport system**

This objective recognises that road crashes have a huge social and economic cost to the Region, and that the use of some other modes of transport is declining because of concerns about safety and personal security, whether real or only perceived.

#### **What will our Region be like in 2040?**

Most necessary safety improvements to our roads are complete, and these contribute to a dramatic reduction in road crashes. Road users have a safety mentality which encourages them at all times to avoid risky behaviour and take steps to minimise the chances of a crash.

Facilities and improvements for cyclists and pedestrians which alleviate safety and personal security concerns encourage many more to take to the road and these people enjoy the health and economic benefits of these modes of transport.

The number of cyclists and pedestrians on the roads means that motorists are much more aware and careful of these vulnerable road users. As a result of this, accidents have declined and parents no longer feel that is unsafe to let their children walk or cycle to school.

#### **Objective 4**

##### **A transport system that protects and promotes public health**

This objective recognises the effects that a largely car-based personal transport system is having on our health and the environment.

We are less and less physically active, and our transport choices are contributing to this inactivity. The link between physical activity and good health is now well documented, and the use of active transport modes could enable many people to build more physical activity into their daily routines.

While there is currently little evidence that vehicle emissions contribute significantly to chronic ill health and premature deaths in our Region, we must ensure that this risk does not increase with time.

##### **What will our Region be like in 2040?**

More convenient public transport, better walking and cycling facilities and a greater consciousness of the benefits of other transport modes mean that many people use these modes at least occasionally. As a result they are more physically active and enjoy the health benefits of these activities.

Greater use of alternative modes, particularly for short trips, helps to ensure that concentrations of vehicle emissions do not build to unacceptable levels, especially in areas where vulnerable people congregate, such as near schools.

#### **Objective 5**

##### **A transport system that protects cultural values and the environment**

This objective recognises the value the Region places on improving the quality of its natural environment and contributing appropriately to national targets to reduce carbon emissions. The transport system must be environmentally sustainable and should not be in conflict with the cultural values of the people of the Region.

**What will our Region be like in 2040?**

The number of people choosing to use alternative transport modes, at least for short trips, may have offset the growth in vehicle emissions caused by a growing economy. The Region's transport system has made an appropriate contribution to national carbon reduction targets.

Effective integrated planning for urban growth will have made environmentally friendly transport methods more convenient, and will have reduced the need to make some trips.

New transport infrastructure may have been provided where necessary, but has not had a significant adverse effect on the quality of the surrounding environment, or on the cultural values and lifestyles of people living nearby.

**4.3 Outcomes and Measures**

The vision and objectives described in Section 4.2 set the high level direction for the RLTS. The specific outcomes outlined in Table 6 are the demonstrable "results on the ground" which the RTC will monitor over the life of the Strategy. These may be interconnected and contribute to the vision and objectives in a variety of ways.

Each outcome is accompanied by appropriate measures where possible; these are the means by which progress towards the outcomes will be monitored. In selecting these it was important to ensure that the necessary data is either currently collated nationally by region, or that regional data collection can be implemented in a timely and cost-effective way

Section 4.3.1 describes inter-regional outcomes of importance to the Region, as required by Section 77(a) of the LTMA.

Table 6 below also assesses each outcome's potential contribution to the objectives of the RLTS. Each outcome has been broadly assessed on whether it is likely to make a positive (+) negative (-) or neutral (0) contribution to the outcome.

Land Transport Outcomes	Measures	A resilient and effective transport system that supports economic growth	A multi modal transport system that provides access to work, social and recreational opportunities for all sectors of the community	A safe transport system	A transport system that protects and promotes public health	A transport system that protects cultural values and the environment
Improved safety, efficiency and reliability of road, public transport and freight links to the south of the Region	<ul style="list-style-type: none"> <li>Variability of travel time on SH1 south of Levin</li> <li>Number of crashes on SH1 south of Levin</li> <li>Annual number of rail passengers between Palmerston North and Wellington</li> </ul>	+	+	+	+/0	0
Improved safety, efficiency and reliability of road and freight links to the north, east and west of the Region	<ul style="list-style-type: none"> <li>Variability of travel times on SH 1 north, SH2, SH3 (selected sections)</li> <li>Number of crashes – SH1 north, SH2, SH3</li> </ul>	+	+	+	+/0	0
Maintained vehicle travel times for intra-regional destinations	<ul style="list-style-type: none"> <li>Average travel times on key intra-regional routes including tourist routes</li> </ul>	+	+	0	0	0
Maintained inter-regional freight efficiency	<ul style="list-style-type: none"> <li>Journey times on the regional strategic freight network (road and rail, selected routes)</li> </ul>	+	0	0	0	0
Increased inter-regional freight movement	<ul style="list-style-type: none"> <li>Freight volume trans-shipped in Region</li> </ul>	+	0	0/-	0	0/-
Improved utilisation of the existing transport network in Palmerston North and Wanganui	<ul style="list-style-type: none"> <li>Public transport boardings</li> <li>Average vehicle occupancy (selected commuter routes)</li> <li>Delay times (selected intersections)</li> </ul>	+	+	+/0	+	+/0
Improved road safety	<ul style="list-style-type: none"> <li>Number of serious and fatal road crashes by transport mode</li> </ul>	+	+	+	+	0
Increased public transport mode share	<ul style="list-style-type: none"> <li>Public transport trips per capita</li> <li>Journeys to work by public transport</li> </ul>	+	+	+	+	+
Reduced single occupancy motor vehicle mode share	<ul style="list-style-type: none"> <li>Vehicle occupancy rates (selected routes)</li> </ul>	+	+	+	+/0	+
Increased walking and cycling mode share	<ul style="list-style-type: none"> <li>Journeys to work/school on foot or by bike (Census data, major employer surveys, school surveys)</li> </ul>	0	+	+	+	+
Reduced greenhouse gas emissions from the transport network	<ul style="list-style-type: none"> <li>Tonnes of CO<sub>2</sub> emitted from domestic transport per capita.</li> <li>Regional fuel sales volumes</li> <li>VKT on regional roads</li> </ul>	0	+	0	+	+
No worsening of transport system affordability	<ul style="list-style-type: none"> <li>Percentage of household consumption expenditure on transport</li> <li>Regional transport infrastructure and operational expenditure per capita</li> </ul>	+	+/0	0	0	0

**Table 6: Contribution of specific outcomes to the objectives of the RLTS**

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### 4.3.1 Inter-regional Outcomes

Section 77(a) of the LTMA requires the RLTS to contain “inter-regional and intra-regional outcomes relevant to the Region”.

The Horizons Region is bordered by four other regions (Waikato, Taranaki, Hawkes Bay and Wellington) and co-operation is imperative in ensuring that a consistent and coordinated approach is taken to the management of any land transport networks that cross regional boundaries. We are required to consult with these regions when preparing the strategy and to identify any inter-regional outcomes.

The following inter-regional outcomes have been developed for this Strategy and are included in Table 6 in Section 4.3.

***Improved safety, efficiency and reliability of road, public transport and freight links to the south of the Region.***

The Wellington region is to the south of the Region and is the origin and/or destination of a significant amount of freight and private vehicle movements between the two regions. The primary movement of people and freight is through the Western Corridor via State Highway 1 and the NIMT. Secondary movements are made through the Wairarapa Corridor via State Highway 2, the Pahiatua Track and the Wairarapa rail line.

The condition of State Highway 1 to the south of the Region has been a major land transport issue for some time given its economic importance to the Region and adjacent regions. State Highway 1 is the main national spine route and this stretch of it is increasingly heavily trafficked. In 2009 the Government announced seven Roads of National Significance (RoNS) which were singled out as being essential routes requiring priority treatment in order to support economic growth and improve road safety. The Wellington Airport to Levin corridor was announced as one of these RoNS projects. The plan is to develop a four-lane expressway to be completed in sections over the next 10 years. The Otaki to north of Levin section is likely to be the last section developed; however, this includes a bypass of Levin which will provide relief from congestion that occurs in Levin and also congestion that occurs between Otaki and Levin, particularly on holiday weekends.

The condition of the NIMT railway line may also need to be upgraded if the amount of freight to be carried by rail is to meet the needs of projected freight volumes by 2040. Passenger rail movements need to also be considered during the lifetime of this Strategy and there may be a need to electrify the line between Palmerston North and Waikanae in the future. The commercially operated Capital Connection commuter rail service between Palmerston North and Wellington could be under threat once improved services between Waikanae and Wellington are implemented as part of the Tranz Metro service. Close liaison will be required between the Horizons Regional Council, Kapiti Coast District Council, KiwiRail and Greater Wellington Regional Council to evaluate options for the future of this service.

The Wairarapa corridor will continue to be a secondary corridor south. However; there is potential for forestry related movements to increase in the

future as forests are harvested placing pressure on both State Highway 2 and possibly the Wairarapa rail line to carry this increased movement of freight.

***Improved safety, efficiency and reliability of road and freight links to the north, east and west of the Region***

To the north of the Region is the Waikato region. There are significant movements of people and freight between both regions along State Highway 1 and along the NIMT railway line.

The Desert Road (State Highway 1) is the main route for inter-regional movements. Levels of service differ between the Horizons and Environment Waikato regions on parts of the route, with more passing lanes in the Horizons portion than the Environment Waikato portion. Co-ordination between Horizons, Environment Waikato and NZTA is required to ensure a consistent level of service from Waibouru to Taupo.

In the winter months there is also a significant number of private vehicle movements headed to Mt Ruapehu from the north via State Highway 4.

State Highways 41 and 47 play a minor role in the transport of people and freight between Ruapehu District and the Waikato region. In the event that State Highway 1 is closed, which often happens in winter due to snow and ice, these other highways play an important role in the north-south movement of people and freight.

The focus on these links to the north is on making sure these routes can withstand natural hazards such as snow and volcanic eruption when they occur, for route security and reliability reasons.

The Hawkes Bay region is to the east of the Region and State Highway 2 is the major roading connection between the two regions. This route has experienced significant growth in traffic since 1990. Overall, the network copes well with the traffic volumes on this route although two major realignments are planned within the next five years to improve safety and the level of service at Manawatu Hill and Papatawa.

The Manawatu Gorge, on State Highway 3, forms part of the main east-west link in the Region and because of its susceptibility to closure due to natural events, and to provide a direct tourist and freight route between the central plateau and Hawkes Bay, the Horizons and Hawkes Bay regions have agreed to use 'R' Funds to seal the Napier-Taihape Road. Once finished, the road will become an important secondary tourist and freight link.

The Palmerston North-Gisborne rail line is an important inter-regional connection, transporting primarily dairy products from the Taranaki and Horizons regions to the Port of Napier for export. Recent works on this line have improved its capacity and also enhanced the east-west rail corridor between the New Plymouth and Napier ports.

Taranaki lies to the west of the Region and has a number of cross-boundary networks, the primary one is State Highway 3. This is a key economic link for both regions as much dairying produce from the Region is carried to the Whareroa processing facility in Hawera via this route.

State Highway 43 is the other state highway link between the two regions, with a section of it in Taranaki remaining unsealed. This route is becoming increasingly popular as a tourist route and is important, especially for the Taranaki region, as an alternative route when State Highways 1 and 3 are closed.

Route 40 is a local road link between the two regions connecting Ahititi in Taranaki to Ohura in the Ruapehu District. A section of this road is unsealed and Ruapehu District Council intends to seal the section in the Horizons Region during the period 2015-16 to 2018-19. Sealing of this route means that it could become a vital secondary route, especially for the movement of freight in the event that State Highway 3 is closed.

There are two rail links between the regions. The Marton – New Plymouth (MNP line) connects Port Taranaki in New Plymouth with the North Island main trunk railway line link at Marton. This line is vitally important for both regions for route security, reliability and economic growth. The line forms part of the important east-west transport corridor as dairy products are transported via this link from as far east as the Tararua District.

The Stratford to Okahukura Line (SOL) is currently not in use but is an important alternative link should the North Island main trunk railway line be restricted. The SOL Working Party was established to advocate for the retention of this line after concerns were raised about its future. Representatives from both Horizons Regional Council and Ruapehu District Council have been involved in this working party. Since the establishment of the working party, the Government has announced that it intends to mothball the line. A decision on its future will be announced in 2012. Meanwhile, the working party will continue to advocate for the continued use of the line for both passenger excursion and freight trains.

Recent improvements to the MNP line have improved the capacity of the line and there are now concerns that this line may become over-saturated due to these improvements and the closure of the SOL.

#### **4.4 Targets and Monitoring**

Targets (outlined in Table 7) have been developed for each outcome. Where “no worsening” is the outcome, targets have been set as the baseline levels. If no current value is available for a measure, baseline measures will be recorded and set as soon as the RLTS has been adopted by the Regional Council.

Monitoring and reporting on regional progress towards the objectives and outcomes of the RLTS will be undertaken through a three-yearly report on its implementation, as is required under the LTMA. This report will:

- present an updated value on each of the measures listed in Table 7
- evaluate progress towards the specified targets in Table 7
- document progress on the specific future inputs to the transport system outlined in this Strategy

**Table 7: Land transport outcomes, measures and targets**

Land Transport Outcomes	Measures	Targets
Improved safety, efficiency and reliability of road, public transport and freight links to the south of the Region	<ul style="list-style-type: none"> <li>Variability between peak and offpeak<sup>27</sup> road travel time on SH1 Levin to Paraparaumu</li> <li>Number of fatal and serious injury crashes on SH1 Levin to Otaki</li> <li>Annual number of rail passengers between Palmerston North and Wellington</li> </ul>	<ul style="list-style-type: none"> <li>No variability in travel time by 2025</li> <li>50% reduction in serious and fatal injury crashes on SH1 Levin to Otaki. (2020-2025 total compared with 2005-2010 five year total)</li> <li>20% increase in annual rail passengers Palmerston North to Wellington by 2020</li> </ul>
Improved safety, maintained efficiency and reliability of road and freight links to the north, east and west of the Region	<ul style="list-style-type: none"> <li>Travel times on SH1 north, SH2, SH3 (selected sections)</li> <li>Number of crashes on SH1 north, SH2, SH3</li> </ul>	<ul style="list-style-type: none"> <li>No worsening of travel times on selected sections, when compared with 2010 levels.</li> <li>No worsening of rail freight trip times (selected sections)</li> <li>20% reduction in fatal and serious injury crashes on SH1 north, SH2, SH3 – (2020-2025 total compared with 2005-2010 five year total)</li> </ul>
Maintained vehicle travel times for intra-regional destinations	<ul style="list-style-type: none"> <li>Average travel times on key intra-regional routes including tourist routes</li> </ul>	<ul style="list-style-type: none"> <li>No worsening of travel times on key intra-regional routes compared with 2010 levels</li> </ul>
Maintained inter-regional freight efficiency	<ul style="list-style-type: none"> <li>Journey times on the regional strategic freight network (road and rail, selected routes)</li> </ul>	<ul style="list-style-type: none"> <li>No worsening of freight journey times on the regional strategic freight network (road and rail, selected routes, compared with 2010 levels)</li> </ul>
Increased inter-regional freight movement	<ul style="list-style-type: none"> <li>Freight volume trans-shipped in the Region</li> </ul>	<ul style="list-style-type: none"> <li>Annual increase in volumes of freight trans-shipped in the Region compared with 2010 levels</li> </ul>
Improved utilisation of the existing transport network in Palmerston North and Wanganui	<ul style="list-style-type: none"> <li>Public transport trips</li> <li>Vehicle occupancy (selected commuter routes)</li> <li>Delay times (selected intersections)</li> </ul>	<ul style="list-style-type: none"> <li>1.7 million trips by public transport in the Region by 2015-16, 2 million trips by 2020</li> <li>Increase average vehicle occupancy rate (selected commuter routes at peak times) by 20% on 2010 levels by 2020</li> </ul>
Improved road safety	<ul style="list-style-type: none"> <li>Number of serious and fatal road crashes - key issue areas</li> </ul>	<ul style="list-style-type: none"> <li>A 30% reduction in serious injury and fatal crashes across high priority areas of Safer Journeys 2020 by 2020</li> </ul>
Increased public transport mode share	<ul style="list-style-type: none"> <li>Public transport trips per capita</li> <li>Journeys to work by public transport</li> </ul>	<ul style="list-style-type: none"> <li>3% of journeys to work in Palmerston North by public transport in 2016, 4% by 2021</li> </ul>
Reduced single occupancy motor vehicle mode share	<ul style="list-style-type: none"> <li>Average vehicle occupancy rates (selected routes)</li> </ul>	<ul style="list-style-type: none"> <li>Increase average vehicle occupancy rate (selected commuter routes at peak times) by 20% on 2010 levels by 2020</li> </ul>
Increased walking and cycling mode share	<ul style="list-style-type: none"> <li>Journeys to work/school on foot or by bike (Census data, major employer surveys, school surveys)</li> </ul>	<ul style="list-style-type: none"> <li>20% of all journey to work trips by active modes by 2021 (baseline measure)</li> <li>80% of all journeys to secondary school by active modes by 2021 (baseline measure 68% in 1997)</li> </ul>
Reduced greenhouse gas emissions from the transport network	<ul style="list-style-type: none"> <li>Tonnes of CO<sub>2</sub> emitted from domestic transport per capita.</li> <li>Regional fuel sales volumes</li> <li>Vehicle Kilometres Travelled on regional roads</li> </ul>	<ul style="list-style-type: none"> <li>Reduce by 20% by 2020 relative to 2007 per capita emissions<sup>28</sup></li> <li>10% reduction in five-year rolling average VKT in Palmerston North urban areas by 2020</li> </ul>
No worsening of transport system affordability	<ul style="list-style-type: none"> <li>Percentage of household consumption expenditure on transport</li> <li>Regional transport infrastructure and operational expenditure per capita.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain percentage of household consumption expenditure on transport at 2010 level</li> </ul>

<sup>27</sup> Peak periods defined as 7-9am and 4-6pm weekdays, 3pm-6pm Sundays and public holidays (southbound traffic).

<sup>28</sup> Consistent with NZTS 2008 target to halve per capita greenhouse gas emissions from domestic transport by 2040.

## 5. Evaluation of Strategic Options

### 5.1 Introduction

The LTMA requires the Region to identify the strategic options available to it for achieving its desired outcomes. This section outlines how the chosen strategic option was selected.

This work builds upon the initial assessment of strategic options undertaken during the development of the 2006 RLTS. However, as the RTC has revised the vision and objectives for the Strategy to give a greater emphasis to certain aspects of the Region's economy, the assessment criteria have been adjusted to reflect this and the process of strategic options development has been simplified.

Three strategic options for the transport network were assessed. These included:

- A. Base Network - This is a do minimum, a continuation of base maintenance and operational expenditure with no significant investment in the transport system over the next 30 years
- B. Supporting Economic Development While Managing Travel Demand – This includes a mixture of roading improvements to cater for traffic growth where other avenues are not feasible, some public transport improvements, and some travel demand management tools
- C. Mainly Roothing Focus – This concentrates most of the Region's resources on roading network improvements, while maintaining public transport operations, rail operations and walking and cycling investment etc at current levels.

A further scenario focused mainly on measures to manage travel demand was not considered to be a realistic option for this Region, which is largely rural with several dispersed urban centres. Projected population growth is mainly concentrated in the Palmerston North and Manawatu areas, with the remaining districts likely to have static or declining populations into the future. While travel demand measures, such as increasing the use of public transport, will have some effect in the urban centres, growth in demand is predicted on the strategic network through the development of the Palmerston North-Manawatu area's key role in the trans-shipment of freight, requiring roading capacity improvements on some sections of the network as a result. Rural areas will continue to be largely serviced by the private car because traditional public transport options are usually not viable in such areas. However Horizons Regional Council will continue to explore opportunities to support community-based services such as the Horowhenua Health Shuttle and the Foxton Beach Community Van.

Similarly, the option focusing largely on safety identified in the 2006 RLTS was not carried forward into this assessment as it was felt that safety would be an important feature of both Options B and C, although under Option A, road crash rates would worsen if emerging blackspot issues were not addressed.

An assessment framework was developed based on the objectives and outcomes set by the RTC to address the Region's transport issues and challenges. Over the life of the RLTS, progress towards achieving each outcome will be evaluated against a number of indicator measures. In selecting these measures, it was important to ensure that these are able to be monitored in a realistic and meaningful way for this Region. Each of the scenarios was assessed for its probable contribution to each of the outcomes. The outcomes of this assessment are summarised in Table 8 on Page 51.

## 5.2 Description of Scenarios

In developing the scenarios, the following assumptions have been made:

- Y Growth predictions for the Region (as outlined in Section 2.2) will be realised; there is continued and fairly significant population growth in the Palmerston North-Manawatu area, while other areas have shown population decline.
- Y The regional population will age as predicted and there will be many more people no longer able to drive and with special transport needs.
- Y Fuel prices will show increasing volatility and this will increase demand for public transport in urban areas, for commuting between centres and for access to essential services from the smaller rural towns. Walking and cycling for short trips will increase.
- Y Extreme climatic events will become more common, and a resilient network with a variety of transport options will become increasingly important.

### A. Base Scenario

The Base Scenario assumed that no significant roading, public transport, walking and cycling or other improvements would be made over the 30 year life of the Strategy, other than already committed projects and services as identified in the Regional Land Transport Programme (RLTP) 2009-12. Capacity and safety issues on State Highway 1 to the south of the Region could increase significantly and the Palmerston North transport model shows a worsening level of service on key corridors under this scenario. This means that the area's ability to act effectively as a freight hub could be hindered<sup>29</sup>.

Available capacity on some public transport services could be exceeded as the population grows and ages in Palmerston North, and growth in use of public transport by commuters at peak times would stall. Safety for pedestrians and cyclists could worsen through increasing conflict with motor vehicles due to traffic growth and lack of adequate planning and investment for these modes.

<sup>29</sup> Memorandum 'Existing Network Capacity' GHD Ltd to Palmerston North City Council, 23 July 2008 and JTS Draft Phase 2 Report, May 2010.

## **B. Supporting Economic Development while Managing Travel Demand**

This scenario assumes:

- All Base Scenario maintenance and operational expenditure, plus committed projects – as shown in the RLTP 2009-12.
- The recommended upgrades to the section of State Highway 1 between Levin and Otaki as part of the Government's strategy to improve the Road of National Significance between Levin and Wellington Airport.
- Recommended roading upgrades to the Manawatu and Palmerston North area strategic network, as identified in the joint strategic transport study of this area.
- An ongoing programme of improving known blackspots on State Highways and local roads as part of a safe systems approach to road safety, where justified.
- A programme of road safety education and enforcement measures to address behavioural causes of motor vehicle crashes.
- Service frequency and coverage improvements to Palmerston North and Wanganui urban bus services to achieve the strategic direction set in the RLTS.
- Investigation into the role of rail in the ongoing provision of commuter services between Palmerston North and Wellington.
- Improvements to commuter bus services between major and minor population centres in the Region where justified.
- Improvements to community transport services in smaller towns and rural areas where appropriate.
- Walking and cycling infrastructure improvements where justified.
- Travel behaviour change measures to reduce single-occupancy vehicle trips and increase use of alternative transport modes.

## **C. Roothing Focus**

This scenario incorporates policies and actions to support:

- Base Scenario maintenance and operational expenditure, plus committed projects in the RLTP 2009-12 as at 2010.
- The recommended upgrades to the section of State Highway 1 between Levin and Otaki as part of the Government's strategy to improve the Road of National Significance between Levin and Wellington Airport to the Palmerston North and Manawatu areas.
- Recommended roading upgrades to the Manawatu and Palmerston North area strategic network identified in the joint strategic transport study of this area.

- An ongoing programme of improving known blackspots on State Highways and local roads as part of a safe systems approach to road safety.
- Other roading improvements (particularly in the major urban areas) to address increased traffic demand where appropriate.

The results of the assessment are summarised in Table 8<sup>30</sup>.

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<sup>30</sup> May 2010 Government announcements to inject significant funding into rail infrastructure improvements have not been included in these scenarios.

**Table 8: Assessment of Strategic Options against contribution to RLTS outcomes**

Land Transport Outcomes	Measures	Base scenario	Supporting Economic Development and Managing Travel Demand	Roading Focus
Improved safety, efficiency and reliability of road, public transport and freight links to the south of the Region	<ul style="list-style-type: none"> <li>Variability of travel time on SH1 south of Levin</li> <li>Number of crashes on SH1 south of Levin</li> <li>Rail passengers Palmerston North to Wellington</li> </ul>	-	+	+
Improved safety, efficiency and reliability of road, and freight links to the north, east and west of the Region	<ul style="list-style-type: none"> <li>Variability of travel times on SH1 north, SH2, SH3 (selected sections)</li> <li>Number of crashes – SH1 north, SH2, SH3</li> </ul>	-	+	+
Maintained vehicle travel times for intra-regional destinations	<ul style="list-style-type: none"> <li>Average travel times on key intra-regional routes including tourist routes</li> </ul>	-	+	+
Maintained inter-regional freight efficiency	<ul style="list-style-type: none"> <li>Journey times on the regional strategic freight network - road and rail</li> </ul>	-	+	+
Increased inter-regional freight movement	<ul style="list-style-type: none"> <li>Freight volume trans-shipped in region</li> </ul>	-	+	+
Improved utilisation of the existing transport network in Palmerston North and Wanganui	<ul style="list-style-type: none"> <li>Public transport boardings</li> <li>Average vehicle occupancy (selected commuter routes)</li> <li>Delay times (selected intersections)</li> </ul>	-	+	0
Improved road safety	<ul style="list-style-type: none"> <li>Number of serious and fatal road crashes by transport mode</li> </ul>	-	+	0/+
Increased public transport mode share on commuter routes	<ul style="list-style-type: none"> <li>Public transport trips per capita</li> <li>Journeys to work by public transport</li> </ul>	0/-	+	-
Reduced single occupancy motor vehicle mode share	<ul style="list-style-type: none"> <li>Vehicle occupancy rates (selected routes)</li> </ul>	0/-	0/+	-
Increased walking and cycling mode share	<ul style="list-style-type: none"> <li>Journeys to work/school on foot or by bike (Census data, major employer surveys, school surveys)</li> </ul>	-	+	-
Reduced greenhouse gas emissions from the transport network	<ul style="list-style-type: none"> <li>Tonnes of CO<sub>2</sub> emitted from domestic transport per capita</li> <li>Regional fuel sales volumes</li> <li>VKT on regional roads</li> </ul>	-	0/-	-
No worsening of transport system affordability	<ul style="list-style-type: none"> <li>Percentage of household expenditure on transport</li> <li>Local authority transport infrastructure and operational expenditure per capita</li> </ul>	0/+	0	-

### 5.3 Selection of Preferred Option

Overall, while many of the planned infrastructure improvements in Options B and C were similar, Option C would not contribute across as wide a range of outcomes because it made no provision for further improvements to the public transport system, walking and cycling, or other methods to change travel behaviour.

Early consultation with regional stakeholders identifying key issues to be addressed in the revised RLTS indicated that a transport system that minimises adverse effects on the environment is highly important to the regional community. The LTMA also requires the Region to develop an RLTS which “avoids, to the extent reasonable in the circumstances, adverse effects on the environment”, therefore a regional strategy that did not consider how to best minimise negative environmental effects would not fully comply.

For these reasons, Option B is preferred as it contains measures that, to the extent considered reasonable in this Region, manage demand for transport and contribute to reducing the negative environmental effects of the transport system.

While some roading improvements will be necessary to address the safety and capacity issues on State Highway 1 and improve the strategic network around Palmerston North, the Region also wishes to continue improvements to the public transport system, and intends to explore the potential for an improved passenger rail service.

An injection of Government funding into the rail freight system on the NIMT line bodes well for the Region<sup>31</sup> and could also have positive implications for improved passenger services, but more detail on this funding is needed to determine its exact benefits to the Region.

<sup>31</sup> In May 2010 the Government announced an allocation of \$250 million over 2009-10 and 2010-11 as part of its KiwiRail Turnaround Plan.

## 6. Achieving the Vision – the Role of each Transport Mode, Policies, Methods and Specific Actions

Previous chapters of the Strategy have outlined:

- the transport issues and pressures for the Region into the future
- the Region's vision and key transport objectives
- a set of outcomes which sit under the broader vision and objectives, and measures and targets for monitoring these
- a specific strategic direction to focus the Region's efforts in meeting these objectives

This chapter sets out the role we believe each transport mode should play in achieving our transport vision. It then sets out the policies, methods and key actions that will help to ensure these roles, as well as other general policies that will contribute to vision and objectives of the RLTS, and the LTMA aims of achieving an affordable, integrated, safe, responsive and sustainable land transport system.

### 6.1 Role of Transport Modes

The Region's residents have greatly varied transport needs. Some have a high degree of choice and flexibility while others have limited options for getting around. The RLTS acknowledges the need for increased choice of personal transport in order to reduce dependence on car travel and recognises the Region's desire to see all residents able to participate fully in daily activities and live healthy, fulfilling lives. The transport system must be adaptable to changing circumstances and respond to the needs of the Region's varied communities.

Section 77(f) of the LTMA requires the RLTS to contain "an assessment of the appropriate role for each land transport mode in the Region". This section outlines the Region's views on the appropriate role for each of these modes in this Region, and is consistent with the objectives and outcomes of the RLTS.

#### 6.1.1 Private Vehicles

The appropriate role for private vehicles in the Region is the safe and efficient movement of people between many origins and many destinations at varied times. Private vehicle travel is appropriate over distances that cannot be easily walked or cycled and/or where the trip cannot be conveniently provided for by public transport services. Private vehicles also have a role in providing for the needs of the mobility impaired.

The flexibility and convenience a car provides in terms of trip origin and destination, time of travel and trip distance means that it is often the most attractive mode choice. Therefore, even with a public transport system which serves the urban area relatively well, such as in Palmerston North and Wanganui, a proportion of car trips cannot easily be transferred to other

modes. Private vehicle trips in the Region accounted for 61.4% of trips in 2006. The preferred strategic option identified in this strategy aims to support economic development while managing travel demand and incorporates policies and actions aimed at reducing the need to travel, increasing vehicle occupancy and increasing mode share of alternative transport modes to reduce the overall private vehicle mode share over the lifetime of this strategy.

Within the rural areas of the Region there is a high level of dependency on private vehicles for inter and intra-regional trips and this is unlikely to change. It is difficult to provide cost-effective public transport services in these areas that match the flexibility and convenience that private vehicles offer. The policies and specific outcomes in the Strategy identify the need for the Region to investigate and develop innovative and cost-effective public transport solutions to improve access and mobility for residents in small towns and rural areas where appropriate.

### **6.1.2 Taxis**

The appropriate role for taxis is similar to that of private vehicles. Taxis also provide an alternative for those without access to a private vehicle where scheduled service or routes do not provide adequately for a particular trip. Taxis provide a door to door service for those with disabilities or limitations in mobility and the Total Mobility scheme supported by the Region utilises taxis for this purpose. It is expected that as the average age of our residents increases (refer Section 2.2.1) the Total Mobility scheme and other specialised transport services will become significantly more important in providing for the transport needs of the region's residents.

### **6.1.3 Public Transport**

The role of public transport in our Region is to provide an environmentally sustainable alternative to private cars, particularly for longer journeys where active modes are less attractive. This includes regular commuters to work or education, within urban areas and between small and larger centres.

Public transport also has a vital role in providing for people who do not own or have access to a private vehicle, are unable to drive, or cannot use active modes to access the community services they need. Public transport services in the Region are largely provided by bus, with the exception of the Capital Connection rail service from Palmerston North to Wellington.

Public transport trips in the Horizons Region accounted for just under 2% of journeys to work<sup>32</sup> in 2006, and the policies and specific actions contained within this Strategy seek to increase this mode share over its lifetime. As with taxis and van services, it is likely that demand for public transport will increase as the average age of the regional population increases.

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<sup>32</sup> Statistics New Zealand 2006 Census data

## **Buses**

The appropriate role for buses is the provision of a safe and efficient network of services that allows the connection of many people between many origins and destinations in the urban areas and between centres. This RLTS seeks to grow bus patronage and improve peak period mode share by providing frequent, reliable and cost effective public transport services in and between urban centres, to facilitate commuting.

There is a need to provide communities outside the urban centres with more transport choices; however, it is difficult to provide cost-effective public transport services in these areas that match the flexibility and convenience that private vehicles offer. The policies and specific outcomes in the Strategy identify the need for the Region to investigate and develop innovative and cost-effective public transport solutions to improve access and mobility for residents in these areas.

## **Passenger Rail**

The appropriate role for passenger rail in the Region is the safe and efficient movement of many people at a time over medium to long distances. The commercially operated Capital Connection commuter service (Palmerston North to Wellington) provides access to the Greater Wellington region for residents in the southern part of the Horizons Region, with approximately 35% of users boarding in Palmerston North, Shannon or Levin.

The double tracking and electrification of the NIMT line between McKay's Crossing and Waikanae will impact on the commercial viability of the Capital Connection service and some form of central or local Government subsidy may be required to maintain the service. The RTC has formed a sub-committee to undertake a study to determine the current and future role of passenger rail between Palmerston North and Wellington. Should the study recommend that the Region has a role to play in supporting future passenger rail services, public consultation will be undertaken via the Regional Public Transport Plan review in late 2010 and may be incorporated into this RLTS as a variation.

While the Government announcement in May 2010 of increased investment in rail through the KiwiRail Turnaround Plan places most emphasis on rail freight, investment will also be made into improving current passenger service performance, particularly reliability and shorter transit times on the main trunk line to increase service uptake by long distance and metro passengers.

### **6.1.4 Walking**

Walking is an appropriate mode for short local trips, connections between modes and at either end of longer journeys by other modes. Walking is often the most energy and time-efficient and safest means of transport for short trips. It also has important health, fitness, social and environmental benefits. The most common walking trips are to/from public transport services, within town centres and to local shops.

Walking trips accounted for 6.4% of all Region's journeys to work in 2006. With the exception of Palmerston North City and Wanganui District, we have

seen an increase in walking trips to work since 2001, after significant declines regionally in the late 1990s. To ensure this trend continues, the Strategy identifies a number of actions to promote walking, such as providing new infrastructure to cater for safe walking, encouraging land use development that minimises dependence on private vehicles, and travel behaviour change and education programmes.

**Table 9: Journey to Work (Census Data) by Active Mode – Cycling or Walking**

	1996	2001	2006
Palmerston North	18.00%	15.00%	14.09%
Wanganui	12.00%	10.50%	10.29%
Horowhenua	12.00%	9.50%	9.93%
Manawatu	7.30%	7.00%	7.40%
Rangitikei	12.40%	9.40%	11.35%
Ruapehu	18.10%	13.30%	15.18%
Tararua	10.50%	8.70%	9.55%

Source: Statistics New Zealand website

### 6.1.5 Cycling

The appropriate role for cycling is the safe and efficient movement of people between many origins and many destinations, over short to medium distances, as an alternative to private cars, and as a form of recreation. Cycling contributes positively towards a sustainable transport system as it is energy efficient, has minimal environmental impacts, is affordable and has associated health and fitness benefits. Cycling also contributes to reduced congestion in urban areas as cycles require less road space and parking space than private vehicles.

Cycling trips in the Region accounted for 3% of total trips in 2006. Palmerston North City, as one of the cities with the highest rates of cycling in New Zealand, has nevertheless shown a significant decline in the use of active transport modes for journeys to work since 1986. Although 2006 Census data shows the decline may have slowed, it is disappointing that greater investment in walking and cycling infrastructure, increased fuel prices, and greater awareness of the harm that transport emissions do to the environment, have not yet reversed this trend. However, a number of the smaller districts show an increase in use of active transport modes.

Anecdotally, the uptake of electric bicycles has increased in certain centres in the Region. These bicycles can travel at a much higher speed than conventional bicycles and as this technology decreases in price, usage could increase further. Future road safety education programmes may need to cater for this form of high speed cycling.

Cycling can be perceived to be unsafe and can have a higher relative risk than other transport modes. Therefore, perceptions of cycle safety, along with the

provision and quality of cycling facilities, have an important role to play if cycling is to continue to increase in the Region. This Strategy seeks to encourage cycling as a transport mode and for recreation through actions such as providing infrastructure that caters for safe cycling where appropriate, developing road maintenance programmes (e.g. cleaning up glass on roads) that consider the needs all of road users and travel behaviour change and educational programmes.

### **6.1.6 Freight**

The appropriate role of freight is the safe and efficient movement of goods within, to and through the Region. There is a direct relationship between economic growth and freight growth, and if the Region is to achieve its economic development objectives there must be an effective, efficient system of freight transport. While much of this freight transport will continue to be by road, rail could play an increasing part.

#### **Road freight**

Road freight is most appropriate for the movement of goods between many origins and many destinations. Because of its central location and efficient transport links, Palmerston North is becoming increasingly important as an intra- and inter-regional freight distribution centre, and the transport network must keep pace with this role. To provide for road freight, the Strategy aims to plan for, maintain and develop transport corridors which support and encourage the Region's important role in the efficient distribution of freight throughout New Zealand.

#### **Rail freight**

Rail freight is most appropriate for the movement of high volumes of goods over long distances between key production and distributions nodes, and is estimated to be six times more fuel efficient than road for hauling bulk freight. KiwiRail is advancing the use of the Palmerston North rail yards as a distribution point for rail freight heading through and out of the Region. The Strategy seeks to support the continued and enhanced use of the rail network to provide for efficient freight movement by encouraging the maintenance, retention and development of the regional rail network and supporting facilities that allow the transfer of freight between rail and other transport modes as appropriate.

The Government announced an in-principle investment of \$750 million in the KiwiRail Turnaround Plan in May 2010. This includes an appropriation of \$250 million in 2009-10 and 2010-11. The Turnaround Plan will invest \$4.6 billion over the next 10 years into KiwiRail with the aim of enhancing the national rail freight network to establish rail as a competitive and viable alternative for freight movement.

Particular emphasis will be placed on keeping the main freight line from Auckland to Christchurch fully operational, improving reliability and reducing transit time. Reliability and capacity on other key routes will be improved through increased renewals investment. Reviews will be undertaken on North Auckland, Stratford-Okahukura, Napier-Gisborne and North Wairarapa lines with potential closure or mothball by 2012 if anchor customers do not emerge.

The NIMT line runs directly through the Region and links to the east and west via the Marton-New Plymouth and Palmerston North-Gisborne lines. Upgrades to the main trunk will enhance the efficiency of freight movement to, from and through the Region. This RLTS encourages the retention of the current rail network, including the retention of disused rail corridors for other possible transport uses.

### 6.1.7 Other Modes

Modes such as mobility scooters and skateboards are generally confined to using the existing pedestrian network. While these modes are important to users, they are below the scope of strategic regional transport planning. Provision of infrastructure and regulation of use of these modes is more appropriately dealt with at a local community level.

## 6.2 Travel Demand Management

Travel demand management (TDM) is a concept encapsulating a range of methods to alter travel behaviours in order to produce a more sustainable transport system and reduce the adverse impacts of travel. TDM may include strategies to:

- change travel behaviour and thereby reduce the need to travel
- encourage the use of lower impact modes and offer users a wider range of transport options
- modify traffic patterns and optimise the use of the transport system.

The benefits of TDM to the Region over time could include a reduction in the level of transport emissions in the environment, less congestion on certain sections of the network, deferral of the need for new roads or increased roading capacity, a reduction in personal transport costs, better facilities for alternative transport modes, and an increase in physical activity levels through the use of active transport methods.

Policies 5, 7, 8, 10, 11 and 12, with their methods and their actions set out the Region's travel demand management strategy, as required by Section 77(e) of the LTMA. These are consistent with the National Energy Efficiency and Conservation Strategy's objectives of:

- reducing energy use through reducing the need for travel, and
- improving the provision and uptake of low energy transport options.

They are considered an appropriate strategy for this Region where it is recognised that car-based travel will continue to be the main transport option for rural residents, although much can be done to encourage more efficient vehicle use. However, in our urban centres, more effort should be focused on encouraging the use of public transport and walking and cycling for commuting to school and work. In all areas of the Region, promotion of ways to use vehicles more effectively forms part of this Strategy.

## 6.3 Policies, Methods and Key Actions

This section outlines the policies that have been developed to support the strategic option outlined in Chapter 5. Where appropriate, it also lists some key projects and actions that form part of that option. However most projects and actions are not specifically identified in the RLTS as implementation of the RLTS is undertaken through the RLTP which is developed by the RTC every three years. Project costs, objectives, timings and regional priority are set out in the RLTP.

The policies have been grouped according to the transport mode or key area of achievement they relate to. We have taken this approach to minimise the duplication that would arise if activities and policies were described under each RLTS objective, as many contribute to several objectives.

### 6.3.1 The Road Network

The strategic roading network in the Region carries through traffic rather than local traffic and a higher proportion of heavy motor vehicles transporting freight than other roads outside the network. It also connects centres of economic and residential development, links our Region with its neighbours and joins key destinations within the Region.

The work undertaken to develop a roading hierarchy for the Manawatu-Palmerston North area through the JTS has been amalgamated with previous work undertaken on a draft regional roading hierarchy in 2007. The map of the regional strategic network at Appendix 3 sets out the key inter-regional and major arterial routes.

Local roads service local communities and play an important role in the daily lives and business activities of the Region's residents. The Region is a region of roads, with most of our smaller districts having extensive networks of rural roads to service their rural communities and areas of primary production.

Urban roads in the larger centres must safely provide for the needs of all road users. Many urban routes carry significantly higher volumes of traffic than some routes in the strategic network, and are crucial to ensuring a smooth flow of traffic in and around the cities they service.

Increased lifestyle subdivision in the rural areas of some districts is causing an expectation of improved road quality that is often not warranted by the level of use the road receives. Dispersed rural residential development generates traffic demand as residents must travel greater distances to essential services, and public transport cannot be provided in areas of such low population density.

**P1 *Maintain and as necessary improve the strategic transport network to ensure safe, efficient intra- and inter-regional accessibility and links with national roading corridors***

**BY**

1.1 Undertaking a programme to maintain and develop the strategic road network to give effect to the preferred strategic option of the RLTS

- 1.2 Protecting the current and future functions of the strategic road network through designations and appropriate planning processes
- 1.3 Ensuring the strategic road network is resilient to disruption from adverse weather and other hazards, and that there are available alternatives of appropriate standard for this function
- 1.4 Maximising the existing capacity of the strategic roading network by efficient network management techniques
- 1.5 Minimising the negative effects of land use intensification on the strategic roading network
- 1.6 Ensuring good co-ordination between local authorities and the NZTA on inter-district routes, to achieve a consistent approach to maintenance and improvements

Key Actions:

1. Complete investigations of necessary improvements to the Road of National Significance between Levin and Otaki (NZTA) and implement the identified improvements (NZTA, Horowhenua District Council)

*Also known as the Wellington Northern Corridor, the Levin to Wellington Airport Road of National Significance was identified by the Government as one of seven roads of national significance in 2009. Development of these routes has been identified as critical to growing the national economy by improving productivity in New Zealand's largest cities and surrounding regions.*

*The Wellington Northern Corridor is of strategic importance both nationally and regionally as it serves the country's third largest economic centre, seat of Government and is the primary route in and out of Wellington. It also provides access to key regional facilities and the inter-island ferry terminals. Safety and journey time reliability is poor on this corridor. The highway is regularly congested, especially at peak travelling times including holidays. The route's poor safety record is well known, with one of the highest number of fatal/serious crashes per kilometre in the country.*

*The section of this route that sits within the Horizons Region (Levin to Otaki) has for some time been identified as containing the Region's most serious and highest priority transport issues. Growth on State Highway 1 south of Levin has been approximately 2% to 3% since 1990, with 9% of all traffic being heavy motor vehicles. The route is of variable standard with a number of narrow bridges and areas of poor alignment, which contribute to its significant crash rate. State Highway 1 bisects Levin and there is significant conflict with local traffic at this point.*

*Detailed investigations of the route between Otaki and north of Levin have still to be completed but will comprise:*

- *four-laning and intersection improvements from Otaki to Levin*

- *a bypass of Levin*
- *passing lanes and intersection improvements up to 10 kilometres north of Levin*

*The rough cost of the expected improvements was estimated at \$140 million in late 2009. While the Otaki to Levin improvements are planned to be the third phase of the Wellington Northern Corridor upgrade, the Government has indicated its commitment to ensuring that all the seven RoNs upgrades are completed by 2020. Further detail on the implementation of improvements on this corridor will be known once detailed investigations are complete. These are programmed for completion in 2012.*

2. Implement the recommendations of the Palmerston North Manawatu Joint Transport Study (JTS), to ensure that the strategic transport network in the Palmerston North-Manawatu rural area caters for future growth and facilitates economic development (NZTA, Territorial Authorities, Horizons Regional Council)

*The JTS was completed in mid-2010, and sets out a framework for the strategic network in the Palmerston North and Manawatu over the next 30 years.*

*The proposed strategic network takes into account work currently underway to draft an urban growth strategy for Palmerston North for the short to medium term, to 2030. Feasibility studies are currently underway for two main sites for future urban growth to the east and west of the city, totalling an additional 2,300 residential lots approximately.*

*A map of the proposed hierarchy in the study area is included in Appendix 3.*

The key conclusions of the study are:

- *a western bypass of Bunnythorpe and the New Upstream Bridge are sufficiently economic to warrant these projects being adopted for the purpose of planning the road network within the study area*
- *the hierarchy of the rural road network within the study area should:*
  - *retain three arterial routes between Feilding and Palmerston North via:*
    - *Camerons Line, Milson Line, Kairanga Bunnythorpe (KB) Road and Rangitikei Line connecting to Rangitikei Street (as a major arterial)*
    - *Camerons Line, Milson Line, connecting to Ruahine Street (as a minor arterial), noting that this function would then be downgraded to a local road in the remaining northern section to KB Road and to a collector in the remaining southern section as far as Flyers Line, in response to any closure of Milson Line arising from an extension of the airport runway - Waughs Road, Bunnythorpe Western Bypass and Railway Road connecting to Vogel Street (as a major arterial)*

- *recognise three inter-regional routes:*
  - *between Mt Stewart and the Manawatu Gorge via Rangitikei Line, KB Road and Ashhurst Road*
  - *between SH54 (Feilding) and SH56 via Bunnythorpe, KB Road, Rongotea Road, No 1 Line and Tiakitahuna Road*
  - *between Ashhurst and south of Levin via SH57*
  - *recognise Stoney Creek Road as a Minor Arterial road in an eastern corridor connecting to the New Upstream Bridge, but also recognising that its function should be reviewed as the growth patterns and strategies for the city's eastern urban area become more certain and when the New Upstream Bridge is in place*
  - *provide for a Rural Ring Road around Palmerston North including KB Road and Stoney Creek Road*
- *road improvements required to give effect to the proposed road hierarchy, in addition to the Bunnythorpe Western Bypass and the New Upstream Bridge comprise:*
  - *widening KB Road between:*
    - *Rangitikei Line and Milson Line to 10m*
    - *Milson Line and Bunnythorpe to 8.5m*
  - *intersection improvements likely in the form of roundabouts at:*
    - *Rangitikei Line/KB Road*
    - *Milson Line/KB Road*
    - *Bunnythorpe Western Bypass/KB Road*
    - *Campbell Road/Ashhurst Road/Stoney Creek Road*
    - *widening Ashhurst Road to 8.5m*
    - *upgrading Stoney Creek Road, including some improvements to the alignment and seal widening to 8.5m*
    - *minor improvements in Ashhurst to improve safety and efficiency*
- *planning provision, with a view to later construction, should be made for new links:*
  - *to achieve the Bunnythorpe Western Bypass*
  - *to the south of Bunnythorpe between KB Road and Ashhurst Road*
  - *connecting Stoney Creek Road and Riverside Drive including an intersection upgrade at Napier Road/Stoney Creek Road, possibly in the form of a roundabout in Ashhurst, between Mulgrave Street and Short Street*
- *structure plans to manage local road and property access should be prepared for:*
  - *KB Road*
  - *Stoney Creek Road*
  - *Ashhurst Road in the event that development pressures emerge*

on SH57 through Aokautere

- the proposed new links involving the western and southern bypasses of Bunnythorpe and the approaches of the New Upstream Bridge
- a separate traffic study be undertaken of options to optimise the Palmerston North urban road network and to develop an integrated roading plan to cater for future traffic demands, both to 2021 and to the longer term horizon of this study, which will need to allow for the land use changes to emerge from the current urban growth strategy and which may include a review of the findings of this study which are based on present land use projections.
- This plan for the development of the road network in the study area, particularly the rural road network between Feilding and Palmerston North addresses the deficiencies in the existing road network and is entirely compatible with the RoNS project of NZTA for the Levin to Wellington corridor, including an eastern bypass of Levin.

The estimated cost of proposed improvements and timing over the next thirty years is shown as follows:

Project	Possible Form	Estimated Cost (\$000)	Yr 1-10	Yr 10-20	Yr 20-30
Rangitikei Line/Kairanga Bunnythorpe (KB) Road Intersection Upgrade	Roundabout	1,600			
KB Road: Rangitikei Line to Milson Line Seal widening	10m	2,800			
Milson Line/KB Road Intersection Upgrade	Roundabout	1,600			
KB Road: Milson Line to Bunnythorpe Seal Widening	8.5m	4,800			
Bunnythorpe Southern Bypass	8.5m	5,700			
Bunnythorpe Western Bypass on Te Ngaio Road (including Waugh's Road Link	10m	8,600			
Bunnythorpe Western Bypass/KB Road Intersection Upgrade	Roundabout	1,600			
Ashhurst Road Upgrade	8.5m	3,000			
Stoney Creek Road Upgrade	8.5m	3,600			

These improvements are in addition to the proposed Upstream Bridge of the Manawatu River, with an estimated cost of \$55.7 million and estimated construction period commencing between Years 5 and 15 of the strategy.

3. Continue to monitor the need for capacity and safety improvements on State Highway 1 and 3 between Bulls and Sanson (NZTA)
4. Implement the NZTA Passing Lane strategy for the Horizons Region, which provides for passing lanes at 5, 10 or 20 km depending on traffic volumes and terrain (NZTA)
5. Implement safety realignments on strategic routes in identified priority order through the RLTP (NZTA, Territorial Authorities)

*To include:*

- *completion of the Ohingaiti –Makohine Realignment in late 2010*
- *the Manawatu Hill Realignment (SH2 north of Dannevirke)*
- *the Papatawa Realignment (SH2 north of Woodville)*
- *assorted small to medium safety improvements on regional State Highways*
- *safety realignment of the Pahiatua Track route.*

**P2 *Support the provision of effective connections to the Region's principal economic growth and productivity areas***

**BY**

- 2.1 Ensuring that road controlling authorities, through the RLTP, maintain, and where necessary, improve existing transport links into rural areas to facilitate primary production and tourism
- 2.2 Ensuring good coordination between local authorities and the NZTA on inter-district routes, to achieve a consistent approach to maintenance and improvements
- 2.3 Upgrading rural roads and bridges as necessary to cater for commercial, agricultural, forestry and tourism traffic
- 2.4 Encouraging the separation of arterial and local road traffic where appropriate

**Key Actions:**

1. Complete the sealing of the Whanganui River Road to support tourism activities in the area (Ruapehu District Council, Wanganui District Council)
2. Complete sealing of the Napier–Taihape Road to support tourism, primary production and freight movements (Rangitikei District Council, Hastings District Council)

**P3 Ensure the local road network provides suitable access to business, educational, social and recreational services for the Region's residents and businesses**

**BY**

- 3.1 Providing and maintaining local roads that cater appropriately for the needs of businesses and communities
- 3.2 Encouraging the separation of arterial and local road traffic where appropriate
- 3.3 Maintaining and renewing local roads in a manner consistent with their function
- 3.4 Ensuring good coordination between local authorities and the NZTA on inter-district routes, to achieve a consistent approach to maintenance and improvements.

Key Actions:

1. Regularly review and implement Asset Management Plans (all Road Controlling Authorities)
2. Undertake a traffic study of options to optimise the Palmerston North urban road network and to develop an integrated roading plan to cater for future traffic demands within the urban area of Palmerston North, as identified in the JTS (Palmerston North City Council)
3. Undertake a transportation study within the Wanganui urban area to identify key transport needs and required improvements across all modes of transport (Wanganui District Council).

**6.3.2 Freight**

The distribution of freight and the role of the Region in freight hubbing and inland port concepts is predicted to be of increasing importance to the regional economy over the life of this Strategy. One of the principal objectives of this Strategy is to ensure that this role is fostered and supported by an effective transport network.

The NZTA Central Region Freight Analysis<sup>33</sup> highlights Palmerston North's expanding role in freight distribution, saying that

*"Palmerston North is continuing to become the distributional hub for import, export and domestic commodity movements in the lower North Island. It is at the centre of both the road and rail transport in the lower North Island. This results in two commodity flows of particular importance for the central region:*

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<sup>33</sup> NZTA Central Region Freight Analysis, Hyder Consulting, 2010.

- *It is a key staging point for relatively high value import and domestic freight between Auckland and Wellington or between Auckland and the South Island.*
- *It has good access to hinterlands which produce key New Zealand export commodities which can easily be exported out of ports in Napier, New Plymouth and Wellington or even Auckland and Tauranga. In particular it is the staging point between Fonterra output from the Whareroa plant and export locations in Napier, Auckland and Tauranga.*

*To ensure that this role continues to grow the Region must further the Palmerston North urban area as a key distribution location for import, export and domestic commodities for freight moving both up and down and across the North Island. This increased distributional ability benefits the entire central region by reducing transport costs for exporters and increasing efficiency thus decreasing transit times. It also allows co-ordinated grouping and hubbing of freight which may result in increased efficiency and reliability for ports.*

*The challenge in increasing the distribution ability is to ensure the ability of low priced large land areas for large storage facilities and to ensure that where these facilities are located efficient access, by both road and rail, is maintained.”*

#### **P4 Support the efficient and effective movement of freight within and through the Region**

##### **BY**

- 4.1 Planning, maintaining and developing transport corridors to support and encourage the Region's major role in the efficient distribution of freight throughout New Zealand
- 4.2 Supporting the integration of modes, where possible, to encourage the most efficient and effective inter- and intra-regional movement of freight
- 4.3 Considering the needs of freight distribution in local and regional planning documents, and ensuring the availability of suitable land to facilitate this
- 4.4 Supporting the provision of facilities for the transfer of freight between transport modes, as appropriate
- 4.5 Establishing and protecting a safe network of routes for 'high productivity motor vehicles', where appropriate
- 4.6 Ensuring that freight corridors are resilient to disruption from adverse weather and other hazards, and that there are available alternatives of appropriate standard to minimise disruption of freight flows

Key Actions:

1. Establish a Freight Advisory Group to investigate potential routes for high productivity motor vehicles and assess required improvements to cater for these vehicles, in a manner consistent with NZTA's strategy for implementation of the Vehicle Mass and Dimension Rule in the Region<sup>34</sup> (Horizons Regional Council)
2. Evaluate the implications of the National Freight Plan (when completed) for this Region (Freight Advisory Group).

### 6.3.3 Public Transport

During the 1990s, public transport trips in the Region formed only a small percentage of the daily trips taken in the course of work, recreation, study and social activities. However with an increase in Central Government funding for public transport funding since 2000, improved services have contributed to steady growth in the use of public transport.

Prior to 2006, the Region's policy was largely to provide public services primarily for the "transport disadvantaged", with a lesser emphasis on the environmental and congestion benefits of public transport. The 2006 RLTS recognised the need to broaden the focus of public transport to cater better for commuters and others who already have a degree of transport choice in order to contribute to the environmental objectives of the RLTS by reducing private vehicle trips.

Innovations such as the Massey and UCOL Unlimited Access Schemes have introduced "free" access to public transport services for students and staff of those organisations, with the cost met by the organisations themselves. These schemes have brought about very significant growth in bus use in the urban areas where they operate, contributing to a reduction in parking congestion and reduced vehicle movements on key roads around the facilities.

There is potential to introduce this model to other large trip-generating facilities in or near the urban areas of Palmerston North and Wanganui. In addition to increasing use of public transport services, third party funding contributes to the improvement of services which benefit all passengers, and helps to keep the public transport system affordable for regional ratepayers.

The Region is a large region with, in addition to two main urban centres, a number of dispersed small rural towns. It is difficult to justify traditional scheduled public transport services within such areas, and innovative solutions using existing community resources need to be found. A number of community van services already exist in the Region, providing transport primarily for the transport disadvantaged and this is a cost-effective model which could be successfully extended to other areas.

A number of commuter bus services are currently operated between centres, and this RLTS proposes to extend these where there is sufficient demand. As fuel prices are likely to be increasingly volatile in the future, demand for

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<sup>34</sup> The Napier-Taupo-New Plymouth route is fourth on NZTA's priority list for route assessment for these vehicles. Wellington-Palmerston North-New Plymouth is seventh.

commuter services to replace relatively high cost private vehicle trips will grow. This type of response to fuel price increases has already been demonstrated in recent periods of price volatility.

Taxi services also have a very important role to play in the Region, providing transport to essential services for those with limited mobility. The Region will continue to support the provision of Total Mobility<sup>35</sup> services throughout the Region wherever an appropriate operator is available.

## **P5 *Promote the increased use of public transport***

### **BY**

- 5.1 Providing frequent, reliable, cost effective public transport services where appropriate in urban areas and between centres
- 5.2 Promoting public transport in urban centres as the mode of choice for current car users, particularly for commuters
- 5.3 Ensuring that the public transport system is accessible and affordable for all, including those with limited options
- 5.4 Developing high quality passenger transport infrastructure in appropriate locations
- 5.5 Providing bus priority measures where appropriate and necessary to maintain a high level of service
- 5.6 Investigating and developing innovative and cost-effective public transport solutions to improve access and mobility for residents in small towns and rural areas
- 5.7 Planning and providing for public transport routes and facilities in residential subdivisions and major new facilities.

#### **Key Actions:**

1. Review and implement the Regional Public Transport Plan to reflect the strategic direction of the RLTS (Horizons Regional Council).

Plan review to address issues such as:

- i. Improvements to the Palmerston North urban bus service to increase frequency throughout the day and extend weekend and evening services
- ii. The investigation of future express or orbiter routes in urban areas to facilitate commuting and accessibility
- iii. Improved commuter services between Feilding and Palmerston North and between other centres where appropriate
- iv. Frequency improvements and route rationalisation on the Wanganui urban bus service

<sup>35</sup> Total Mobility is a subsidised taxi scheme for those who have disabilities that prevent them using traditional public transport.

- v. Employer subsidy schemes for passenger transport services – large employers and educational facilities
  - vi. Community-based transport options in small towns and rural areas
2. Complete investigations into bus terminal improvements in Palmerston North (Palmerston North City Council, Horizons Regional Council)
  3. Investigate options for bus priority measures on key bus routes in Palmerston North (Palmerston North City Council, Horizons Regional Council)

**P6 *Ensure that people with special transport needs are provided for in the public transport system***

**BY**

- 6.1 Providing Total Mobility and their specialised transport services in as many parts of the Region as possible
- 6.2 Providing wheelchair accessible buses where viable
- 6.3 Ensuring that public transport infrastructure (such as terminals and bus shelters) and bus information systems (timetables, public announcement systems etc) meet the needs of all users.

Key Actions:

1. Complete implementation of the recommendations of Phase 2 of the Total Mobility Review, including investigating the establishment of new services where feasible (Horizons Regional Council)
2. Review bus timetable information systems to ensure that visual impairments are catered for where feasible (Horizons Regional Council)

**6.3.4 Walking and Cycling**

Walking and cycling are cheap, healthy and environmentally friendly modes of transport for short trips.

The decline in walking and cycling has been noticeable in the last 20 years throughout New Zealand and the Horizons Region is no exception, with the decline in cycling as a means of transport particularly apparent. Concerns about safety and personal security, and the availability of cheap vehicles and relatively cheap fuel would seem to be at the forefront of this change. Lifestyle changes may also have played a part, with working parents now finding it quicker and more convenient to transport their children to school by car. Reversing this trend will require significant changes in attitudes and behaviour, particularly among young people.

The Region plans to continue to promote walking and cycling as convenient and healthy methods for short trips over the life of this strategy, including an ongoing programme of infrastructure improvements.

**P7 *Encourage the uptake of walking and cycling as transport modes and for recreation***

**BY**

- 7.1 Providing new infrastructure that caters for safe walking and cycling, where appropriate
- 7.2 Maintaining current walking and cycling facilities to appropriate standards
- 7.3 Encouraging walking and cycling through travel behaviour change programmes, and promotional and educational activities
- 7.4 Providing facilities which enable transfer between modes
- 7.5 Developing and promoting recreational walkways and cycleways where appropriate
- 7.6 Promoting the role of cycling in tourism and recreation in the Region
- 7.7 Developing road maintenance programmes that consider the needs of all road users.

**Key Actions:**

1. Implement the Wanganui Cycle Strategy (Wanganui District Council)
2. Implement the Horowhenua Walking and Cycling Strategy (Horowhenua District Council)
3. Implement the Manawatu Active Transport Strategy (Manawatu District Council, Palmerston North City Council)
4. Complete construction of the Ruapehu-Whanganui Pathways - Ngā Ara Tūhono cycleway (Ruapehu District Council, Wanganui District Council, Department of Conservation)
5. Support the iMove Schools and iMove Workplaces walking and cycling programmes (Horizons Regional Council, Manawatu District Council, Palmerston North City Council, Horowhenua District Council).
6. Trial the provision of cycle carriers on urban buses in Palmerston North (Horizons Regional Council, Palmerston North City Council).
7. Undertake pedestrian and cycling safety education programmes in selected high-risk locations (Horizons Regional Council, Territorial Authorities, road safety partners).

**6.3.5 Rail**

The rail network has the potential to make a significant contribution to the movement of freight and passengers in the Region. Currently about 6% of all freight tonnage in New Zealand is transported by rail, although when the

length of haul is taken into account in tonnes per kilometre figures, rail plays a bigger role, with 15% of the tonnes-kilometre<sup>36</sup>.

Recent tunnel improvements to the Palmerston North to Napier line and the Marton to New Plymouth line have allowed the transport of modern Hi-Cube containers. In the nine months since this work was completed in the Manawatu Gorge, more than 4,000 Hi-Cube containers passed through the Gorge by rail.

Passenger services through the Region have come under increasing pressure in the last 10 years, with the cancellation of services to the Hawkes Bay and a reduction in services between Wellington and Auckland. The Northerner, a night service, was cancelled in the early 2000s and the Overlander was threatened with closure in 2006. However, public and political demand resulted in the Overlander's continuation, albeit with reduced winter services.

The Capital Connection, a commuter service between Palmerston North and Wellington, is potentially under threat as a commercially operated service, due to significant service improvements in the Wellington region to be completed by early 2011. With regular all-day services from as far north as Waikanae, there is potential for many passengers to transfer to the new services, thereby reducing the viability of the Capital Connection.

This Strategy reflects the Region's wish to see its rail network better used for freight and explores the potential for the retention and amplification of passenger services to Wellington.

**P8 *Support the continued and enhanced use of the rail network to provide for efficient freight and passenger movement***

**BY**

- 8.1 Supporting the maintenance and development of the Region's rail network to facilitate safe, efficient transport of freight and passengers
- 8.2 Encouraging the integration of rail and other transport modes, where possible, to encourage the most efficient and effective inter- and intra-regional movement of freight and people
- 8.3 Encouraging the retention of the current rail network in the Region, including the retention of disused rail corridors for other possible transport uses
- 8.4 Supporting retention of current passenger rail services through the Region and investigating opportunities for improved services
- 8.5 Supporting the provision of facilities for the transfer of freight between rail and other transport modes, as appropriate.

**Key Actions:**

- 1. Investigate

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<sup>36</sup> National Freight Demand Study, 2008.

- a. The role of passenger rail services in achieving the vision and objectives of the RLTS, and
- b. The feasibility of retaining or improving current commuter services between Palmerston North and Wellington (Horizons Regional Council, Horowhenua District Council, Palmerston North City Council, Kapiti Coast District Council, KiwiRail)

### 6.3.6 Road Safety and Personal Security

After a significant reduction overall in road deaths in the Region in the 1990s, road fatalities have remained fairly static throughout much of the last 10 years. However, there is an increasing trend for overall injury crashes since 1999.

The annual social cost of crashes to the Region in 2008 was \$285.89 million. Because of the trend to increasing numbers of crashes, renewed effort will be needed if the Region is to contribute to the national targets as laid out in the National Road Safety Strategy, *Safer Journeys 2020*.

It is very important to ensure that the road safety programmes remain flexible and responsive to new and emerging road safety issues and trends throughout the Region, and that they respond to valid community concerns about potential safety risks. This will ensure that emerging issues can be addressed in a timely manner.

#### **P9 *Ensure continuous improvement in regional road safety***

#### **BY**

- 9.1 Utilising a “safe systems” approach involving a combined package of measures targeting safer road users, safer vehicles, safer roads and safer speeds
- 9.2 Targeting the areas of highest risk (as identified in road crash statistics) for road safety interventions
- 9.3 Promoting the development of a road safety culture
- 9.4 Prioritising (in the RLTP) engineering, education and enforcement activities which address identified causes of road crashes in the Region
- 9.5 Ensuring that safety and personal security are fully considered when implementing transport projects

#### Key Actions:

1. Regularly review and implement District Road Safety Action Plans (Territorial Authorities, Police, ACC, NZTA), ensuring good coordination between districts on common road safety issues.

To contain:

- Engineering and management measures to eliminate crashes on black spot areas of the road network
- Community education measures to address key behavioural causes of crashes and injuries
- Law enforcement measures to address key behavioural causes of crashes and injuries.

### 6.3.7 Integration of Land Use and Transport Planning

Travel is an essential component of the daily lives of almost all of the Region's residents. Where we live, work or socialise has a significant effect on how far and how often we need to travel and how we choose to travel. The availability of different travel options may also help us decide where to live or locate our businesses.

It is also important that we protect the function of existing transport networks to ensure that routes remain suitable for their intended functions.

It is therefore vital that transport and land use planning go hand in hand. Land use planning that does not consider future transport needs or alternative modes will lock the Region into inefficient use of its transport resources and is difficult and expensive to mitigate at a later date.

#### **P10 *Promote land use development that minimises dependence on the private car***

##### **BY**

- 10.1 Ensuring new land use development includes provision for walking, cycling and passenger transport services, consistent with relevant best practice guidance
- 10.2 Promoting increased urban housing density in areas or corridors with high accessibility via several transport modes, such as along bus routes
- 10.3 Encouraging compact urban form
- 10.4 Promoting the use of urban design guidelines in all developments
- 10.5 Promoting the establishment of community facilities in new areas of development in order to reduce the need to travel.

**P11 *Encourage effective integration of transport and land use planning in growth areas of the Region***

**BY**

- 11.1 Ensuring that current and future transport corridors are identified and protected in territorial authority planning documents
- 11.2 Developing transport projects and services which support land use plans and strategies
- 11.3 Ensuring freight and tourist flows are taken into account during planning processes.

Key Actions:

- 1. Contribute to the review of district and regional planning documents to ensure alignment with the Regional Land Transport Strategy (Horizons Regional Council)

**6.3.8 Travel Demand Management**

Travel demand management (TDM) methods aim to maximise the efficiency of the transport system, removing the least efficient activities by reducing the need for travel or shifting these trips to other more efficient modes or times of the day when there is greater available capacity on the network.

Managing travel demand goes hand in hand with the promotion of transport modes such as public transport and walking and cycling. Policies and activities in this strategy to promote these modes also form part of the Region's overall strategy for managing travel demand.

The benefits of reducing the number of trips made by single occupancy motor vehicles extend beyond reducing congestion. Making smarter choices about how and when we need to travel will lead to a reduction in carbon emissions and can increase safety (for example, around schools at peak times). If active transport modes are used physical fitness and overall health will improve.

**P12 *Promote a change in travel behaviour in order to reduce the use of private motor vehicles and improve public health through more active modes of travel***

**BY**

- 12.1 Promoting increased urban housing density in areas or corridors with high accessibility via several transport modes, such as along bus routes
- 12.2 Promoting ways to reduce the need to travel
- 12.3 Promoting the use of active modes and public transport
- 12.4 Promoting more efficient use of vehicles by increasing vehicle occupancy

- 12.5 Promoting the adoption of urban design protocols
- 12.6 Managing parking supply as a means of changing travel behaviour
- 12.7 Promoting the development of travel plans for schools and large employers

Key Actions:

1. Complete and implement the draft Palmerston North City Council parking strategy (Palmerston North City Council)
2. Undertake Region-wide promotion of active transport modes and ways to reduce the need to travel (Territorial Authorities, Horizons Regional Council)
3. Investigate the establishment of a rideshare website for the Region (Horizons Regional Council).

### 6.3.9 Environment

The transport system can have a significant impact on the Region's environment in a number of ways – through vehicle emissions, water runoff from roads, noise, the visual impact of transport infrastructure and the loss of natural spaces resulting from new infrastructure developments. The development of new roading infrastructure, such as bridges, culverts, erosion structures and measures to protect infrastructure, can impact on the habitat of fish, while in-stream maintenance is also of concern. Vehicles have access to many of the Region's wilderness areas and it is vital to ensure that the negative impacts of this are weighed carefully against the desire to provide access to recreational spaces such as beaches and rivers.

While air quality in the Region is generally of an acceptable standard, continued economic growth and increasing vehicle ownership could begin to impact at a local level. However, worldwide the contribution of increasing motor vehicle use to global environmental problems is very significant. In New Zealand CO<sub>2</sub> emissions from the transport system have increased by 76% since 1990.

Transport systems and infrastructure may also have significant social and cultural effects on communities, such as through community severance caused by busy highways or by direct or indirect effects on areas of cultural significance.

Many of the environmental effects of the transport system are appropriately dealt with at a national level through the development of standards and guidelines, and the enforcement of these, but much can also be done at a regional and local level to promote the use of lower impact modes, improve land use planning, and mitigate the current effects of the transport system.

**P13 *Ensure that the transport network is managed and improved in a way that avoids or minimises negative effects on the environment***

**BY**

- 13.1 Encouraging consent conditions and laws which control the negative environmental effects of the transport system
- 13.2 Promoting and providing infrastructure that mitigates adverse environmental effects resulting from the transport system, such as stock truck effluent disposal sites
- 13.3 Undertaking monitoring and investigation programmes for transport-related environmental impacts.

**P14 *Support the reduction of greenhouse gas emissions arising from the operation of the regional transport network***

**BY**

- 14.1 Promoting increased urban housing density in areas or corridors with high accessibility via several transport modes, such as along bus routes
- 14.2 Promoting the use of active transport modes, public transport and increased vehicle occupancy in order to reduce dependency on fossil fuels
- 14.3 Promoting the use of alternatives to fossil fuels
- 14.4 Promoting the use of pollution-free and low-polluting technologies

**P15 *Ensure that development of the regional transport network does not adversely affect social, cultural and community values***

**BY**

- 15.1 Locating and designing new transport infrastructure to enhance access, minimise community severance issues and take into account the special values of the local area.

### **6.3.10 Transport System Affordability**

The LTMA requires the RLTS to contribute to the aim of achieving an affordable transport system.

**P16 *Ensure that transport funding decisions contribute to RLTS objectives in a sustainable, affordable and cost effective manner***

**BY**

- 16.1 Ensuring that the benefits of all new transport investments exceed their costs, offer value for money and deliver on the desired strategic outcomes
- 16.2 Prioritising the RLTP to ensure cost effective allocation of regional funding
- 16.3 Ensuring that new transport plans, projects or services are affordable to ratepayers and users
- 16.4 Advocating to Central Government for the allocation of funding in a manner consistent with the preferred strategic option
- 16.5 Advocating for NZTA project evaluation measures that take full account of all costs and benefits and account for externalities to health and the environment
- 16.4 Investigating the potential for alternative funding sources for the land transport system.

**Key Actions:**

- 1. Investigate further potential for third party funding sources in the provision of public transport improvements in the Region (Horizons Regional Council)
- 2. Investigate options for third party or developer contributions to the maintenance and upgrade of rural roads for forestry (Territorial Authorities)

**6.3.11 Responsiveness**

The LTMA requires the RLTS to contribute to the aim of achieving a responsive transport system. This means that the Region must ensure the transport system is adaptable to the changing and diverse needs of users and communities, and that emerging issues can be addressed without undue delay.

**P 17 *Ensure that the planning and development of the Region's transport system responds to community needs and addresses emerging transport issues***

**BY**

- 17.1 Identifying persons and communities likely to be affected by transport decisions and providing early opportunities for them to contribute to the planning and decision making process
- 17.2 Taking steps to mitigate the impacts of transport decisions on affected communities

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## **7. Implementing and Funding the RLTS**

### **7.1 Introduction**

Earlier chapters have set out the Region's vision, objectives and outcomes for transport over the next 30 years and described some of the key activities which will contribute to these. Further detail of some of the main activities planned is contained in implementation plans for specific areas and transport modes, while other documents such as Long-term Council Community Plans (LTCCP), Asset Management Plans and Road Safety Action Plans will also set out detailed activities for implementation by key regional partners to the RLTS.

### **7.2 Implementation**

#### **7.2.1 The Levin to Wellington Road of National Significance**

The background to the upgrade of the Levin to Otaki section of the Levin to Wellington Road of National Significance (RoN) is described in Chapter 6.

Detailed investigations of the route between Otaki and north of Levin have still to be completed but will comprise:

- four-laning and intersection improvements from Otaki to Levin
- a bypass of Levin
- passing lanes and intersection improvements up to 10 kilometres north of Levin

The cost of the expected improvements was estimated at \$140 million in late 2009. While the Otaki to Levin improvements are planned to be the third phase of the Northern Corridor upgrade, the Government has indicated its commitment to ensuring that all seven RoNs upgrades nationally are completed by 2020. Further detail on the implementation of improvements on this corridor will be known once detailed investigations are complete.

#### **7.2.2 The Palmerston North-Manawatu Strategic Network Implementation Plan**

The JTS has set out a blueprint for the activities necessary for the strategic network around Palmerston North and Feilding in order to serve the Region for at least the next 30 years. Detail of the background to the study and its key findings are contained in Chapter 6.

A more comprehensive summary of the study findings is at Appendix 3. A detailed implementation plan for the recommendations of the study is under development.

### 7.2.3 The Regional Public Transport Plan

The Regional Public Transport Plan (RPTP) is to be developed by the end of 2011 and will set out guidelines and levels of service for the provision of public transport services into the future. The RPTP aims to set out how the regional council intends to give effect to the public transport components of the RLTS. All regional councils must prepare an RPTP if they intend to enter into contracts to pay for the provision of public transport services, impose controls on commercial public transport services or provide financial assistance to users or operators of taxi or shuttle services.

Until the RPTP (which will be the Region's first to be prepared under the Public Transport Management Act 2008) is complete; the Regional Passenger Transport Plan 2006 remains in effect.

### 7.2.4 Implementation of Other Activities

Implementation of other activities within the Region is ongoing through State Highway plans and strategies, and local authority asset management plans, Long-term Council Community Plans and Road Safety Action Plans.

## 7.3 Funding the Strategy

This section sets out the likely funding sources that will be available within the Region over the next 10 years. Under Section 76(b) of the LTMA, when preparing a regional land transport strategy on behalf of a regional council, a regional transport committee must also take into account *"the land transport funding likely to be available within the Region for implementing the strategy during the period covered by the strategy"*.

### 7.3.1 Funding Sources Available in the Region

The LTMA requires a more integrated and sustainable approach to the provision and operation of the land transport system, including its funding, planning and long-term investment. However, it recognises that the scope, timing and costs of projects and initiatives invariably change over time. These changes will be reflected in progressive Long-term Council Community Plans for each of the approved organisations in the Region as well as regional and national land transport programmes, which will be considered by the RTC.

There is a range of potential funding sources available in the Region to implement the activities contained within the strategy, including:

#### Nationally distributed funds (N)

N funds are allocated by the NZTA (from the National Land Transport Fund) to approved organisations for the highest priority activities in each activity class not funded by R funds (see below). N funds are allocated to the activities on the basis of national priority until the funding available to each activity class is fully allocated. N funds are mainly derived from road user charges, fuel excise

duty and motorvehicle registrations. Horizons' share of N funds will vary from year to year.

### **Regionally distributed funds (R)**

This is funding derived from a 5 cent per litre increase in fuel excise duty and an equivalent increase in road user charges for light vehicles, to be distributed regionally on the basis of population for ten years from April 2005. Recent changes to the way R funds are distributed by the NZTA result in these being allocated to the activities judged to have the highest priority in each region to ensure a guaranteed minimum level of funding for each region. Currently, approximately \$53 million of R funds remains uncommitted and is likely to still be available by 2015.

### **Local funds**

Funds from local authorities are derived mainly from rates, user charges and debt. Generally regional councils fund public transport activities whereas territorial authorities fund roading activities.

### **Other funding sources**

Funds generated from other sources include development levies, contributions, tolls and Government allocations<sup>37</sup>.

## **7.3.2 Government Policy Statement on Land Transport Funding**

The Government Policy Statement on Land Transport Funding (GPS) is issued by the Minister of Transport every three years and sets out the short to medium term impacts the Government expects to be achieved by activities in the National Land Transport Programme (NLTP). It also sets out the range of available national funding for activity classes for a ten year period.

Under section 75(b) of the LTMA, the RTC must take into account the relevant GPS when preparing a regional land transport strategy. The RTC considers that the preferred strategic option proposed in this Strategy has taken into account the 2009-10 to 2018-19 GPS emphasis of supporting national economic growth and productivity while recognising that measures for travel demand management have an important role to play achieving our regional vision of "a safe, sustainable and resilient transport system that supports economic development and lifestyle choices, with strong connections to national corridors".

Investment will be directed into infrastructure projects and transport services that encourage the efficient movement of freight and people through:

- the recommended upgrades to the section of State Highway 1 between Levin and Otaki as part of the Government's strategy to improve the Road of National Significance between Wellington Airport and north of Levin

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<sup>37</sup> Such as the recently announced injection of \$750 million of Turnaround Funding for the rail system.

- the recommended upgrades to the Manawatu and Palmerston North area strategic network to facilitate economic development and the efficient movement of freight and people to, from and through the study area
- maintaining current levels of expenditure on maintenance and operations both for local roads and State Highways
- improving known blackspots on State Highways and local roads as part of a safe systems approach to road safety
- increasing the level of service for public transport in the major urban areas to enhance service efficiency and improvements to commuter services between minor and major populations centres to provide access to areas that contribute to economic growth where appropriate
- improvements to community transport services to provide more transport choices, particularly for those with limited access to a car where appropriate.

The RTC has compared the Region's expected expenditure by activity in the current RLTP with the national expenditure as guided by the GPS. The proportion of the Region's spend in each activity is not inconsistent with the GPS allocations, although in the current RLTP, a far greater proportion of total expenditure will be on maintenance and operation of the current network than nationally, where significant expenditure will be on improvements to State Highways.

### 7.3.3 Regional Land Transport Programme

The RLTP defines the next three years of investment in detail, provides an indication of significant activities for the following three, and includes a 10-year forecast of anticipated expenditure and revenue for all transport organisations within the Region.

The RLTP forms the Region's request to the NZTA for funding through the NLTP. Activities must be included in the RLTP in order to be included in the National Land Transport Programme (NLTP) and to be considered for funding from the National Land Transport Fund.

In June 2009, Horizons Regional Council adopted a prioritised RLTP covering the period 2009-10 to 2011-12 in detail and to 2018-19 in outline. The RLTP will be updated in 2012; however, variation can be made to the programme if good reason exists to do so.

The table below sets out the forecast expenditure and revenue for the Horizons Region for the 10 years starting 2009, based on information submitted by approved organisations during the preparation of the 2009 RLTP.

**Table 10: Forecast revenue and expenditure 2009-19**

Activity Class	Forecast expenditure 2009-19 (\$000)	Funding Sources			
		National (\$000)	Regional (\$000)	Local (\$000)	Other sources (\$000)
Transport planning	4,007	3,719	0	288	0
Maintenance and operation of local roads	293,698	166,184	0	127,513	0
Renewal of local roads	410,889	233,745	0	177,154	0
Maintenance and operation of State Highways	165,393	165,393	0	0	0
Renewal of State Highways	185,061	185,061	0	0	0
New and improved infrastructure for local roads	146,342	36,019	54,764	48,907	6,650
New and improved infrastructure for State Highways	369,014	341,095	27,918	0	0
Public transport services	55,699	33,419	0	22,279	0
Public transport infrastructure	10,746	6,017	0	4,728	0
Walking and cycling facilities	32,019	24,387	0	7,631	0
Demand management and community programmes	13,544	8,543	0	5,000	0
<b>Total all activities</b>	<b>1,686,412</b>	<b>1,203,582</b>	<b>82,682</b>	<b>393,000</b>	<b>6,650</b>

(source: Horizons Regional Council RLTP 2009-12)

Table 11 below shows the approved allocations for the Region in the 2009-12 NLTP for each activity class (amounts are NLTF share only) and shows the spend as a percentage of the regional approved programme.

**Table 11: Expected expenditure in the Horizons Region 2009-12**

<b>Activity class</b>	<b>(\$ million)</b>	<b>% of total</b>
Walking and cycling facilities	0	0.0
Public transport improvements	1.7	0.6
Transport planning	2.3	0.8
Demand management and community programmes	2.3	0.8
Public transport services	6.8	2.4
New and improved infrastructure for local roads	24.2	8.6
Maintenance and operation of State Highways	40.3	14.3
Renewal of State Highways	40.8	14.5
Maintenance and operation of local roads	46.2	16.4
New and improved infrastructure for State Highways	53.1	18.8
Renewal of local roads	64.3	22.8
<b>TOTAL</b>	<b>282.0</b>	<b>100.0</b>

Historically, there has been a funding gap between the cost of desired investment and the available funding, and this situation is likely to continue over the life of the RLTS. It is extremely difficult to estimate with any confidence what the amount of available funding will be over the next 30 years. There is no funding information available beyond the next 10 years and many factors that influence funding could push it either higher or lower.

However, the Region will take account of the available funding through the development of each RLTP, which must be consistent with the RLTS. The land transport outcomes and policies within the RLTS seek no worsening of the transport system's affordability and to ensure that transport funding decisions contribute to the strategy's objectives in a sustainable, affordable and cost-effective manner. Value for money is also an important consideration. Each RLTP will therefore have to be affordable to the Region.

An estimate of expenditure in the Region to fund this RLTS is set out below. This is based on:

- the 10 year forecast of proposed expenditure set out in the RLTP 2009-12 incorporating proposed roading improvements identified for the first ten years of the RLTS, excluding those resulting from the JTS or as part of the RoNs upgrade.
- the proposed improvements resulting from the Roads of National Significance improvements for State Highway 1 North of Levin to Otaki - proposed for the first ten years of this RLTS

- The improvements resulting from the JTS – phased over first, second and third ten year periods.
- Estimates of funding for proposed public transport improvements not included in the RLTP 2009-12 or beyond the first ten years.

Where estimated expenditure beyond the first ten years is not known, the same level of expenditure as the RLTP 2009-12 has been assumed.

**Table 12: Estimated Cost of Draft RLTS 2010-2040<sup>38</sup>**

ACTIVITY CLASS	Years 1-10	Years 10-20	Years 20-30
	(\$000s)	(\$000s)	(\$000s)
Transport planning	4,007	4,007	4,007
Maintenance and operation of local roads	293,698	293,698	293,698
Renewal of local roads	410,889	410,889	410,889
Maintenance and operation of State Highways	165,393	165,393	165,393
Renewal of State Highways	185,061	185,061	185,061
New and improved infrastructure for local roads	111,685	111,613	85,063
New and improved infrastructure for State Highways	509,014	369,014	369,014
Public transport services	57,199	58,699	61,699
Public transport infrastructure	10,746	746	746
Walking and cycling facilities	32,019	32,019	32,019
Demand management and community programmes	13,544	13,544	13,544
<b>TOTAL</b>	<b>1,793,255</b>	<b>1,644,683</b>	<b>1,621,133</b>

<sup>38</sup> All figures excluding GST and inflation escalation.

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## **8. Other RLTS requirements under Section 77 of the LTMA 2003**

### **8.1 Introduction**

This chapter of the RLTS addresses several requirements of the LTMA which have not been included within other sections.

Section 77(d) of the LTMA states that an RLTS must contain “a statement of any relevant regional economic or land use considerations, and the likely funding of any land transport infrastructure associated with those considerations”.

Section 77(g) states that an RLTS must contain “an assessment of the role of education and enforcement in contributing to the land transport outcomes”.

Section 77(m) states that an RLTS must contain “a summary of the policy relating to significance adopted by the regional transport committee under section 106”.

### **8.2 Relevant Regional Economic or Land Use considerations and Likely Funding**

This Region has three key documents that have significant regional economic and land use considerations. The Regional Policy Statement (RPS) and Horizons' Proposed One Plan, both statutory documents developed under the Resource Management Act (RMA), provide the regional direction for land use development. Palmerston North City Council (PNCC) is currently considering the Residential Growth Strategy which will set the direction for Palmerston North's future residential growth in the coming years.

The RPS is a key strategic document for the Region in regard to the sustainable management of its physical and natural resources. The current RPS was made operative in 1998 and is undergoing a substantial review as part of the One Plan process (whereby all regional resource management plans are updated and combined into one document). Until the Proposed One Plan is made operative the RPS takes statutory precedence.

It is essential that the One Plan addresses any potential environmental effects from the development of transport infrastructure as well as the integration of land use planning with infrastructure planning. In addition, key strategic options and initiatives identified within this strategy will need to be supported and assisted through the provisions of the One Plan.

The key land use considerations identified in the current RPS focus on dealing with the effects of urban development, reducing greenhouse gas emissions, and ensuring that the land transport system meets the needs of the community while avoiding, remedying or mitigating the adverse environmental effects produced as a result of this activity.

As Palmerston North is the largest centre in the Region and the main area of predicted population and economic growth over the course of this strategy, a significant decision such as rezoning large parcels of land for future residential growth could have major implications on the land transport sector.

In November 2009, Palmerston North City Council provisionally recommended that three areas of land be investigated for future residential growth (Anders Road, the area around the Awapuni Racecourse and Kelvin Grove). While a final decision will not be made until September 2010, these areas have been earmarked for growth for a number of reasons including: they will impact the least on the compact urban form of the city; the relatively minor impacts they will have on the existing road network, and that the areas will be well linked to the city's existing social and business infrastructure.

It should be noted that there may be substantial changes to the boundaries of Palmerston North City and Manawatu District in the near future. In June 2010 a report into the long-term growth and development pressures on the Manawatu District and Palmerston North City recommended that the two councils amalgamate as this would best facilitate the long-term economic growth of the area served by the two authorities. One of the main benefits of an amalgamated council for the transport network would be the integration of strategic transport issues with land use, especially around Palmerston North's North East Industrial Zone. While a final decision has yet to be made on amalgamation, it is unlikely that an amalgamated council would be formed until 2013 at the earliest.

### **8.3 Role of Education and Enforcement**

Education and enforcement are two areas that can influence the outcomes of the strategy. Education plays a role in road safety, demand management and affordability outcomes while enforcement plays a role in road safety and demand management outcomes.

Education is important in improving road safety outcomes although it is most often effective when combined with enforcement, engineering and legislative interventions. However, there are some examples of education interventions alone, such as driver and cyclist training, that raise awareness of other road users.

Education intervention plays a key role in demand management initiatives that are aimed at encouraging the public to use alternative modes of travel and assisting users to change from one mode of travel to another. Education can also assist with personalised travel planning to reduce or modify household trips. For some families this may mean the difference between having one or two cars per household, resulting in significant household savings and thereby contributing to affordability outcomes.

Enforcement promotes road safety through addressing unsafe or undesired road behaviours. Safety is a regional priority and enforcement is a key part in achieving the strategy's outcomes and targets. Enforcement can focus on a number of areas of priority such as speed management and alcohol through highly visible means, such as police check points.

Enforcement can also play its part in managing infrastructure to ensure the benefits of interventions are realised; for example cycle lanes, speed and parking restrictions can all contribute to increased demand management outcomes.

Coordinated education and enforcement initiatives can make substantial gains towards achieving the outcomes of this RLTS.

## 8.4 Summary of Significance Policy

### Purpose

This policy sets out how to determine the significance of variations to the RLTS. This policy is set in accordance with the requirements of section 106(2) of the LTMA.

### Application

The RLTS can be varied at any time. However, consultation will be required in accordance with section 78 of the LTMA if the variation is significant. The approach to the consultation will reflect the level of the significance of the proposed variation (to be determined by the RTC) and consideration should be given to the costs and benefits of any consultation process or procedure and the extent to which consultation has already taken place.

When making a decision as to the significance of a matter, the RTC will consider information on the reasons for the variation, the options, relative costs and benefits and those affected by the decision.

### Determination of significance

The significance of variations to the RLTS will be determined on a case-by-case basis. When determining the significance of a variation, consideration must be given to:

- Y The effect on the RLTP or the local authority Long-term Council Community Plan, and consistency with national or regional policies and strategic documents.
- Y The extent to which the variation differs from the preferred strategic option contained within the strategy.
- Y The effect on the overall affordability and integrity of the strategy.

The addition, removal or amendment of any matter which has already been consulted on in accordance with section 78 of the LTMA will usually be considered not significant.

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## 9. Assessment of RLTS

This section demonstrates that the RLTS is in accordance with section 77(c) of the LTMA.

Reference	Provision	Comment
75(a)(i)	The RTC must ensure that the RLTS contributes to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system	Chapter 4.2 Vision and Objectives  Chapter 4.3 Outcomes and Measures  Chapter 6.3 Policies, Methods and Key Actions
75(a)(ii)	The RTC must ensure that the RLTS contributes to each of the following: a. assisting economic development b. assisting safety and personal security c. improving access and mobility d. protecting and promoting public health e. ensuring environmental sustainability	Chapter 4.2 Vision and Objectives  Chapter 6.3 Policies, Methods and Key Actions
75(a)(iii)	The RTC must ensure that the RLTS is consistent with any: a. national land transport strategy b. relevant national policy statement or regional policy statement or regional plan that is for the time being in force under the RMA 1991	Chapter 4.2 Vision and Objectives  Chapter 8.2 Relevant Regional Economic or Land Use considerations and Likely Funding
75(a)(iv)	The RTC must ensure that the RLTS avoids, to the extent reasonable in the circumstances, adverse effects on the environment	Chapter 6.3.9 Policies - Environment
75(b)(i)	The RTC must take into account the relevant GPS	Chapter 7.4 Government Policy Statement on Land Transport Funding (GPS)
75(b)(ii)	The RTC must take into account any national energy efficiency and conservation strategy	Chapter 4.4 Targets and Monitoring

75(c)(iii)	The RTC must take into account any relevant district plans	Chapter 8.2 Relevant Regional Economic or Land Use considerations and likely funding  Chapter 6.3.7 Policies – Integration of Land Use and Transport Planning  Chapter 6.3.8 Policies – Travel Demand Management
76(a)	The RTC must also take into account any guidelines issued by the Minister for regional land transport strategies	N/A – no guidelines have been issued by the Minister
76(b)	The RTC must take into account the land transport funding likely to be available within the Region for implementing the strategy during the period covered by the strategy	Chapter 7.3 Funding the strategy
76(c)	The RTC must also take into account the views of affected communities	Public consultation to be undertaken 7 July – 6 August 2010
76(d)	The RTC must also take into account the views of land transport network providers in the Region	Public consultation to be undertaken 7 July – 6 August 2010
76(e)	The RTC must also take into account the need to give early and full consideration to land transport options and alternatives in a way that contributes to the matters referred to in section 75(a)(iv) and paragraph (c) of the LTMA.	Chapter 1.2 Process for the Development of the Regional Land Transport Strategy, Chapter 5 Evaluation of Strategic Options
76(f)	The RTC must also take into account the need to provide early and full opportunities for persons and organisations listed in section 78(1) of the LTMA. to contribute to the development of the RLTS	Public consultation to be undertaken 7 July – 6 August 2010
76(g)	The RTC must also take into account the need to take account of the relevant regional council's function under section 30(1)(gb) of the RMA 1991	Chapter 6.3.7 Policies – Integration of Land Use and Transport Planning

## **10. Independent Auditor Statement**

To be completed.

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## Appendix 1. Legislative Requirements for a Regional Land Transport Strategy

The Regional Land Transport Strategy is prepared under the Land Transport Management Act 2003 (the Act).

Section 74 of the Act states:

### Responsibility for preparing and approving regional land transport strategies

At least once in every 6 financial years, each regional council must

- a. ensure that the relevant regional transport committee prepares, on the regional council's behalf, a regional land transport strategy that covers a period of at least 30 financial years; and
- b. approve the regional land transport strategy.

Section 75 of the Act states:

### Core requirements for regional land transport strategies

A regional transport committee must, when preparing a regional land transport strategy on behalf of a regional council

- a. ensure that the regional land transport strategy
  - i contributes to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system; and
  - ii contributes to each of the following:
    - A assisting economic development:
    - B assisting safety and personal security:
    - C improving access and mobility:
    - D protecting and promoting public health:
    - E ensuring environmental sustainability; and
  - iii is consistent with any
    - A national land transport strategy; and
    - B relevant national policy statement or any relevant regional policy statement or regional plan that is for the time being in force under the Resource Management Act 1991; and
  - iv avoids, to the extent reasonable in the circumstances, adverse effects on the environment; and
- b. take into account

- i the relevant GPS; and
- ii any national energy efficiency and conservation strategy; and
- iii any relevant district plans

Section 76 of the Act states:

**Other matters that must be taken into account**

When preparing a regional land transport strategy on behalf of a regional council, a regional transport committee must also take into account

- a any guidelines issued by the Minister for regional land transport strategies; and
- b the land transport funding likely to be available within the Region for implementing the strategy during the period covered by the strategy; and
- c the views of affected communities; and
- d the views of land transport network providers in the Region; and
- e the need to give early and full consideration to land transport options and alternatives in a way that contributes to the matters referred to in section 75(a)(iv), and paragraph (c); and
- f the need to provide early and full opportunities for persons and organisations listed in section 78(1) to contribute to the development of those regional land transport strategies; and
- g the need to take account of the relevant regional council's function under section 30(1)(gb) of the Resource Management Act 1991 to consider the strategic integration of transport infrastructure with land use through objectives, policies, and methods.

Section 77 of the Act states:

**Contents of regional land transport strategies**

A regional land transport strategy must contain the following matters

- a inter-regional and intra-regional transport outcomes relevant to the Region; and
- b the strategic options for achieving those outcomes; and
- c an assessment as to how the regional land transport strategy complies with sections 75 and 76; and
- d a statement of any relevant regional economic or landuse considerations, and the likely funding of any land transport infrastructure associated with those considerations; and
- e a demand management strategy; and
- f an assessment of the appropriate role for each land transport mode in the Region; and

- g an assessment of the role of education and enforcement in contributing to the land transport outcomes; and
- h *[Repealed]*
- i a statement that identifies any strategic option for which cooperation is required with other regions; and
- j a statement that identifies persons or organisations who should be involved in the further development of strategic options; and
- k measurable targets to be achieved to meet the outcomes of the regional land transport strategy; and
- l a statement provided by an independent auditor of how the process followed by the regional transport committee complied with the requirements of this Act; and
- m a summary of the policy relating to significance adopted by the regional transport committee under section 106.

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## Appendix 2 The Regional Policy Statement and Proposed One Plan

The Regional Land Transport Strategy must not be inconsistent with the Regional Policy Statement (RPS) that is operative at the time the Strategy is produced. However Horizons Regional Council has also notified the One Plan which weaves together the RPS and the six separate regional plans into one plan.

The RPS for the Manawatu-Whanganui Region became operative in August 1998. Section 30 of the RPS considers Land Transport and Public Utility Networks. Its objectives and policies under this section are reproduced below:

### OBJECTIVE 30

To have land transport systems and public utility networks which meet the needs of the Region, while avoiding, remedying or mitigating adverse environmental effects.

### POLICY 30.1

To promote a land transport system which:

- a. ensures the most efficient use of energy; and
- b. will achieve a reduction in the reliance on non-renewable energy sources;

and which minimises any adverse effects:

- c. of discharges to air;
- d. on areas of special significance to tangata whenua;
- e. on amenity values;
- f. on outstanding natural features and landscapes; and
- g. on cultural and heritage resources.

(Cross reference: Section 21.4, Land, Objective 6; Section 22.3.1, Natural & Cultural Features, Policy 8.2; Section 25.4, Air, Objective 19A)

### POLICY 30.2

To minimise the adverse effects of land use and development on the safe and efficient operation of the existing transport system.

(Cross reference: Section 21.4.2, Land, Method 6.1)

### POLICY 30.3

To provide for the maintenance and future development of essential public services such as public utility networks:

- a. in the coastal marine area;
- b. in the beds of rivers and lakes; and
- c. across administrative jurisdictions, where potential adverse effects can be avoided, remedied or mitigated.

Methods to Implement Policies  
The Regional Council shall:

**METHOD 30.1**

Prepare a Regional Land Transport Strategy under the Transit New Zealand Amendment Act 1992. The Strategy will provide for the land transport needs of the regional community and take into account the environmental impacts of these needs to facilitate a safe, efficient and effective land transport system for the Region.

District Councils should:

**METHOD 30.2**

Include in district plans and as conditions on resource consents provisions to:

- a. protect the safety and efficiency of the Region's existing land transport network from the adverse effects of the subdivision, use and development of land; and
- b. promote efficient use of resources, road safety, public utility networks and to minimise any adverse environmental effects.

(See also: Section 21.4.2, Land, Method 6.6; Section 29.3.2, Energy, Methods 28.5 and 28.6)

**METHOD 30.3**

Provide for the safety and efficiency of the district's land transport infrastructure through provisions in District Land Transport Programmes

The Regional Council and District Councils should:

**METHOD 30.4**

Support and encourage Central Government initiatives which reduce the adverse effects of the transport sector on the environment and reduce the reliance on non-renewable energy sources.

(See also: Section 25.4.2, Air, Method 19A.3)

**EXPLANATION**

These policies provide for the integrated management of the natural and physical resources of the Region associated with transport systems and public utility networks.

**REASONS**

Policies 30.1 and 30.2 address issues T1 and T2. The Regional Council considers preparing a Regional Land Transport Strategy under the Transit New Zealand Amendment Act 1992 is the most appropriate means to address most of the transport issues. This will involve extensive public consultation. It will assist in providing for the integrated management of transport by providing the links between the complementary pieces of legislation, and between the differing aspects of both land transport needs and concerns of environmental matters that must be taken into account.

## **The proposed One Plan**

The proposed One Plan was notified on 31 May 2007. Chapter 3 of the proposed One Plan considers Infrastructure, Energy and Waste. Its objectives and policies under this section are reproduced below:

### **Objective 3-1: Infrastructure and energy**

Resource use activities associated with the provision, maintenance and upgrading of infrastructure, and/or with the use of renewable energy, will be recognised and enabled.

### **Policy 3-1: Benefits of infrastructure**

- a All persons exercising functions and powers under the RMA shall recognise the following infrastructure within the Region as being physical resources of regional and national importance:
  - i facilities for the generation of electricity where the electricity generated is supplied to the electricity grid and facilities and infrastructure to transmit the electricity generated into the electricity grid
  - ii the electricity grid, as defined by the Electricity Governance Rules 2003
  - iii the strategic road and rail network as defined in the Regional Land Transport Strategy
  - iv the Palmerston North Airport
  - v the RNZAF airfield in Ohakea
  - vi telecommunications and radiocommunications facilities
  - vii community wastewater and water treatment plants managed by Territorial Authorities.
- b In making decisions about the establishment, maintenance, alteration, upgrading, and expansion of infrastructure within the Region, including the infrastructure of regional and national importance listed in subsection (a), the benefits derived from the infrastructure at a local, regional and national level shall be taken into account.
- c Existing and future infrastructure shall be managed in a manner which achieves as much consistency across local authority boundaries as is reasonably possible.

### **Policy 3-2: Adverse effects of other activities on infrastructure**

Adverse effects from other activities on infrastructure shall be avoided by using the following mechanisms:

- a ensuring that current infrastructure corridors are taken into account in all resource management decision-making, and any development that will adversely affect the efficiency or effectiveness of infrastructure within these corridors is avoided.

- b. ensuring that any new activities that will adversely affect the efficiency or effectiveness of infrastructure are not located near existing infrastructure, and that there is no change to existing activities that increases their incompatibility with existing infrastructure
- c. notifying the owners or managers of infrastructure of consent applications that may adversely affect the infrastructure that they own or manage.
- d. giving effect to the New Zealand Code of Practice for Electrical Safe Distances (NZECP 34:2001), prepared under the Electricity Act 1992, when establishing rules and considering applications for buildings, structures, and other activities near overhead electric lines and conductors.
- e. ensuring that any planting does not interfere with existing infrastructure, including giving effect to the Electricity (Hazards from Trees) Regulations 2003 promulgated under the Electricity Act 1992.
- f. Ensuring effective integration of transport and land-use planning in growth areas of the Region, including protecting the function of the strategic road and rail network.

### **Policy 3-3: Adverse effects of infrastructure on the environment**

When making decisions on consent applications regarding infrastructure, the adverse effects of infrastructure on the environment shall be managed in the following manner:

- a. **Effects to be avoided** – The following adverse effects of infrastructure shall be avoided to the same extent required of other types of activities:
  - i effects on waahi tapu, waahi tupuna and other sites of significance to Māori
  - ii effects on specified waterways valued for natural state and sites of significance (aquatic)
  - iii effects on rare and threatened habitats as defined in Chapter 7
  - iv effects on the outstanding natural features and landscapes identified in Chapter 7
  - v. effects on protection zones in the coastal marine area as identified in Chapter 9

unless functional constraints make this impossible, in which case adverse effects should be mitigated. Mitigation may include the use of financial contributions in accordance with the policies in Chapter 18.
- b. Other effects – All other adverse effects of infrastructure will be managed in a manner that tolerates minor adverse local effects and takes into account:
  - i the benefits of infrastructure, particularly the benefits of regionally or nationally important infrastructure
  - ii the integration of the infrastructure with land use

- iii the benefits to be derived from the use and development of renewable energy.

A financial contribution may be sought in order to provide the option of offsetting or compensating for adverse effects, rather than requiring adverse effects to be avoided, remedied or mitigated, in accordance with the policies for financial contributions in Chapter 18 of this Plan.

**Policy 3-5: Energy efficiency**

- a. The efficient use of energy shall be taken into account in consent decision making processes for large users of energy.
- b. Local authority decisions and controls on subdivision and housing, including layout of the site and layout of the lots in relation to other houses/subdivisions, should encourage energy-efficient house design and access to solar energy.
- c. Local authority decisions and controls on subdivision and land use ensure that sustainable transport options such as public transport, walking and cycling can be integrated into land use development.

**Methods to implement policies:**

The Regional Council shall:

Project Name	Infrastructure Protection
Project Description	<p>The aim of this project is to reduce the erosion risk to, and caused by, infrastructure construction and maintenance. Infrastructure, such as roading, is a contributor to erosion, particularly through poor stormwater management, and is put at risk from erosion.</p> <p>Advice and information will be provided to infrastructure owners in the planning stages of new works, the carrying out of maintenance, and protection of existing networks from erosion risks. This project applies to all land types – hill country, plains, sand country and the coast.</p>
Who	Horizons Regional Council, network owners (eg., Transit), District Councils, forestry owners, landowners, power generators, and developers.
Target	The Regional Council will have formed working partnerships with all major infrastructure owners for the purposes of assessing and identifying options to avoid, reduce or mitigate erosion risks.

## Explanations and Principal Reasons

Objective 3-1 and Policies 3-1 to 3-3 have been adopted to recognise the benefits of infrastructure and having it well integrated with other land uses. The policies on infrastructure aim to give guidance to decision makers about how to weigh up the local adverse effects of infrastructure against the positive regional and national benefits. They also aim to provide guidance on how to avoid adverse effects on important infrastructure through the inappropriate use of land near or adjoining important infrastructure.

Parts of Policies 3-1, 3-2 and 3.5 are included to give effect to parts of the Regional Land Transport Strategy which seeks to protect the strategic transport network and create opportunity for the uptake of public transport options in the future.

## Appendix 3. Strategic Transport Network

The regional strategic transport network is made up of key inter-regional and arterial roads and railway lines.

The following classification system is used.

CLASS	FUNCTION	TRAFFIC VOLUME	
		Rural	Urban
Inter-regional Routes	As per NZTA's classification system	Not applicable	Not applicable
Major Arterial	Traffic movement is the primary function	>5000	>20,000
Minor Arterial	Traffic movement is the primary function	200-1, 000	1,000-5,000

Maps on the following pages identify the proposed regional strategic road network, incorporating the recommendations from the JTS:

### Rail Lines:

North Island Main Trunk Line

Northern Wairarapa Line

Palmerston North-Gisborne Line

Marton-New Plymouth Line

Stratford-Okahukura Line

### Inter-regional Routes: (all State Highways identified as per 2010 State Highway network)

State Highway 1

State Highway 2

State Highway 3 (proposed inter-regional route to deviate from 2010 State Highway route by bypassing Palmerston North via Kairanga Bunnythorpe Road- Ashhurst Road)

State Highway 4

State Highway 43

State Highway 47

State Highway 49

State Highway 54 (proposed inter-regional route to deviate from current State Highway route at Camerons Line corner. Via Waugh's Road – Te Ngaio Road (future link) to Kairanga-Bunnythorpe Road.

State Highway 56 (proposed inter-regional route to deviate from current State Highway route at Tiakitahuna Road- No. 1 Line, Rongotea Road and Kairanga Bunnythorpe Road.

State Highway 57

### **Major Arterial Routes:**

Rangitikei Line/Rangitikei Street – from intersection of Kairanga Bunnythorpe Road to Grey Street.

The Ring Road in Palmerston North Nth CBD – Grey St - Princess St-Ferguson Street-Pitt Street

Highway 56 between State Highway 56 and State Highway 1

Pioneer Highway to State Highway 57 (future link via a new bridge)

Princess Street to Manawatu Gorge via Napier Road

Pitt Street to Tiakitahuna Road via Pioneer Highway and State Highway 56

Ferguson Street to State Highway 57 via Fitzherbert Avenue and Tennent Drive

Ferguson Street to State Highway 57 via Fitzherbert Avenue and Summerhill Drive

Tremaine Avenue between Rongotea Road and Roberts Line South

Roberts Line South – Tremaine Ave to Napier Road

Napier Road to SH 57 via Te Matai Road -Upstream Bridge – Staces Road (future link)

Railway Road - Bunnythorpe to Tremaine Avenue

Rongotea Road between No 1 Line and Pioneer Highway

Pahiatua – Aokautere Road – Makomako Road – State Highway 57 to Pahiatua

Saddle Road – Ashhurst to State Highway 2.

Cameron's Line-Milson Line to intersection with Kairanga- Bunnythorpe Road

Halcombe Road- Kakariki Road – Feilding to State Highway 1

Makirikiri Road – State Highway 1 to State Highway 3



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## Appendix 4. Palmerston North–Manawatu Joint Strategic Transport Study Summary of Findings – Executive Summary

### Aims

The broad aims of the Palmerston North–Manawatu Strategic Transport Study are:

- to develop an integrated transport network for the study area, with a key focus on confirming a road hierarchy
- to identify the road improvements and develop a programme of works to give effect to the proposed road hierarchy.

A Phase 1 Report, dated March 2010, summarised the findings of previous studies and existing strategies, and identified the issues and constraints to be addressed during Phase 2. The resulting Phase 2 report, dated June 2010, assesses the road hierarchy options and their supporting improvements, and presents a preferred option.

### Deficiencies

The major deficiencies of the existing rural road network within the core study area are:

- the SH3 route between Sanson and the Manawatu Gorge passing through Palmerston North is inefficient as an inter-regional route
- the commuter route between Feilding and Palmerston North via Bunnythorpe requires this traffic to use two level crossings of the North Island Main Trunk (NIMT) railway line
- the need for an additional crossing of the Manawatu River
- the lack of a clearly defined road hierarchy, particularly north and east of Palmerston North to provide good access to the North East Industrial Zone (NEIZ) adjacent to the airport, the proposed eastern residential growth area and the proposed New Upstream Bridge.

There is also a need for additional capacity along and across Tremaine Avenue within the urban area of Palmerston North.

### Current Proposals

A number of proposals have been developed to address these deficiencies as follows:

- a rural state highway route between Mt Stewart and the Manawatu Gorge via Bunnythorpe
- a New Upstream Bridge between Te Matai Road and Staces Road
- an Eastern Corridor between Bunnythorpe and the New Upstream Bridge
- a bypass of Bunnythorpe
- a Rural Ring Road around Palmerston North.

This study reviews and assesses the role of these proposals in an integrated transport network and, in so doing, has taken account of the urban growth areas as currently proposed, noting that a further review of growth strategies is underway.

## Road Hierarchy

The preferred rural road hierarchy is shown by the map included as Diagram A. In developing this road hierarchy the following issues were considered:

- SH3 connection between Mt Stewart and Manawatu Gorge
- Kairanga Bunnythorpe Road (KB Road)
- SH56 to SH54 Connection
- Bunnythorpe Bypasses
- New Upstream Bridge
- Eastern Corridor
- Rural Ring Road
- Ashhurst
- Commuter routes.

For the purposes of this study, the development of a rural road hierarchy has taken account of the existing urban hierarchy, which itself has been well established over many years and accepted as an integral part of the Palmerston North City District Plan. In addition, the rural road hierarchy has also been developed with due regard given to upgrading and improving the existing infrastructure in providing an achievable and sustainable network.

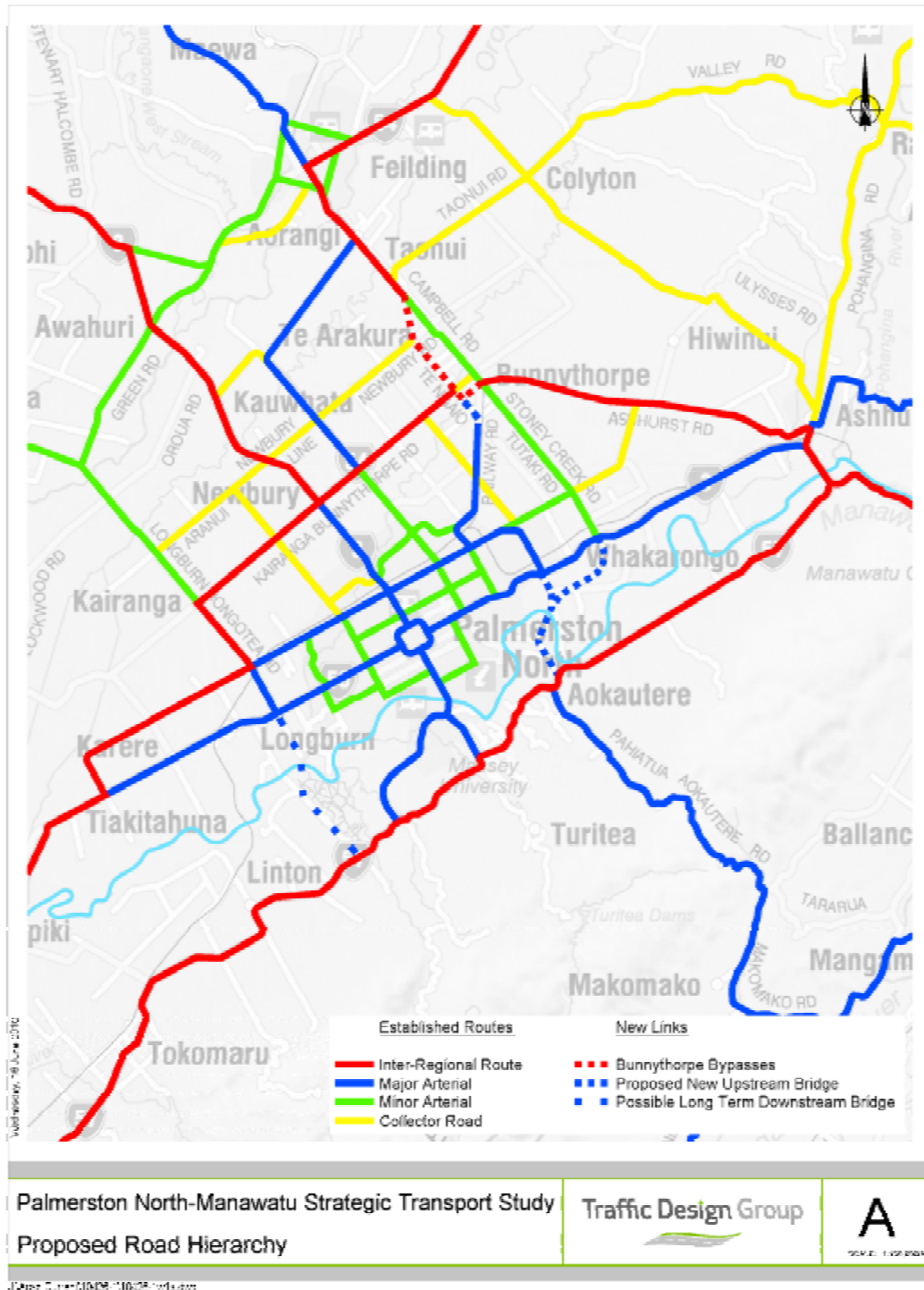
### *SH3 Connection Between Mt Stewart and Manawatu Gorge*

Based on the established roading network, all options for an inter-regional route between Mt Stewart and the Manawatu Gorge pass through Bunnythorpe. North and south of Bunnythorpe the options are:

- Mt Stewart and Bunnythorpe
  - via Feilding
  - via KB Road
- Bunnythorpe to Ashhurst
  - via Ashhurst Road
  - via Stoney Creek Road.

While the Feilding route is shorter, the KB Road route is quicker, and avoids Feilding where speed restrictions apply. Also, an inter-regional route through Feilding utilising the existing road network will create local traffic conflicts and have some community impacts particularly within the industrial area. A new rural bypass of the Darragh Road industrial area in Feilding, connecting between Kawakawa Road and Aorangi Street, is not viable given the current and projected levels of traffic connecting with SH3. KB Road is therefore the preferred inter-regional route between Mt Stewart and Bunnythorpe.

Although there are some speed restrictions through Ashhurst and some local traffic conflicts and local community impacts, Ashhurst Road is shorter and quicker than Stoney Creek Road. Also, Stoney Creek Road itself would require major upgrading to meet the standards of a major arterial to serve inter-regional traffic and would still be a slower route than Ashhurst Road. Therefore, Ashhurst Road is the preferred route between Bunnythorpe and the Manawatu Gorge.



**Figure 8: Proposed Road Hierarchy**

Together, the preferred inter-regional route between Mt Stewart and the Manawatu Gorge is via Rangitikei Line, KB Road and Ashhurst Road.

#### *Kairanga Bunnythorpe Road*

KB Road will in future, have the important functions of providing access to the NEIZ and serving as the major east-west route north of Palmerston North. KB Road is currently a low-standard rural road (except for the section of SH54 between Rangitikei Line on SH3 and Milson Line). To serve these functions, KB Road will need major upgrading.

#### *SH56 to SH54 Connection*

SH56 currently terminates on Pioneer Highway at Maxwells Line without providing a designated state highway connection to SH54. It is most desirable to designate inter-regional routes from SH56 to both the NEIZ (which is envisaged as an inland port) and the Feilding area.

To avoid the speed restriction through Longburn on SH56 and the narrow railway overbridge, particularly for heavy vehicles, the preferred inter-regional route is via Tiakitahuna Road, No 1 Line, Rongotea Road, and KB Road. Prior to the development of a western bypass of Bunnythorpe, Milson Line is the preferred route to Feilding but, thereafter, the route should be shifted to the bypass.

#### *Bunnythorpe Bypasses*

The Manawatu District Council's (MDC's) current proposal is for a western bypass of Bunnythorpe connecting between Waughs Road and Railway Road. Various options have been considered, and MDC has requested that options following Te Ngaio Road and Roberts Line be carried forward for further investigation. This study has confirmed that Te Ngaio Road is the preferred route for a western bypass of Bunnythorpe.

The primary function of a western bypass of Bunnythorpe is to serve commuter traffic between Feilding and Palmerston North. This traffic requires the proposed bypass west of Bunnythorpe to be developed as a major arterial.

The proposed road hierarchy would still be valid without a western bypass of Bunnythorpe and, in any event, pending development of this bypass, Campbell Road (to Railway Road) would be retained as a major arterial.

Provision should also be made in the road hierarchy for a southern bypass of Bunnythorpe connecting between KB Road and Ashhurst Road. This bypass would form part of the inter-regional route between Mt Stewart and the Manawatu Gorge providing bypass of Bunnythorpe and the local KB Road crossing of the NIMT railway line, particularly for heavy vehicles.

#### *New Upstream Bridge*

Palmerston North City Council (PNCC) has, for many years, been investigating a new bridge crossing of the Manawatu River. The primary functions of the proposed New Upstream Bridge are:

- to provide an additional crossing of the Manawatu River

- to relieve congestion along Fitzherbert Avenue by providing an alternative commuter route across the Manawatu River
- to form part of an integrated transport network on the eastern side of Palmerston North connecting to the proposed Eastern Corridor and thereafter to KB Road as part of a Rural Ring Road
- to provide route security for both transport and utility services to the city.

After investigating a range of options PNCC has chosen a preferred route for a New Upstream Bridge between Te Matai Road and Staces Road, and made provision for this new bridge in its LTCCP. This study confirms that the bridge has a strategic and economic value that justifies its inclusion in the overall network. Its timing will become more crucial through the period of the next ten years as urban growth continues in areas to the south of the river and traffic volumes in the Fitzherbert Avenue corridor continue to track upwards, leading to increased congestion at key intersections.

For traffic between the New Upstream Bridge and the Feilding and Bunnythorpe areas, the quickest and shortest route is currently via Roberts Line and Railway Road. While this is a suitable route to the NEIZ, it passes through a residential area without a direct link across Tremaine Avenue-Kelvin Grove Road. Instead, it is proposed that Stoney Creek Road provides the defined connection to Feilding and Bunnythorpe, with longer term provision for a new link from Riverside Drive to Stoney Creek Road to bypass Napier Road.

#### *Eastern Corridor*

An eastern corridor is required to:

- provide a north-south arterial to support land-use developments on the eastern side of Palmerston North
- provide an arterial road connection between Feilding-Bunnythorpe and the proposed New Upstream Bridge.

The options for such an eastern corridor are Stoney Creek Road, Tutaki Road-James Line and Roberts Line.

Roberts Line was rejected as the alignment for an eastern corridor because it is no longer feasible to provide a direct connection between Roberts Line North and Roberts Line South across Kelvin Grove Road bypassing McLeavey Drive. Tutaki Road has been more compromised than Stoney Creek Road by urban (rural lifestyle) development and James Line is through a residential area.

Stoney Creek Road is continuous through to Napier Road on SH3 and connects to Campbell Road while also allowing for a long-term connection to a western bypass of Bunnythorpe via a southern bypass. Stoney Creek Road is proposed by PNCC to form the eastern limit of urban development of Palmerston North. Accordingly, Stoney Creek Road is the preferred route for an eastern corridor.

Consideration has been given to the possibility of developing Stoney Creek Road as a major arterial to a standard which would attract commuter traffic off Railway Road and possibly Milson Line in order to reduce traffic flows on and across Tremaine Avenue, but it has been shown that Stoney Creek Road would, at most, attract up to

approximately 2,000vpd (at 2021) including about 500vpd of commuter traffic. Similarly, even as a major arterial, Stoney Creek Road is not attractive for inter-regional traffic between Mt Stewart and the Manawatu Gorge.

As an arterial route for an eastern corridor, Stoney Creek Road is expected in 2021 to attract 500 to 1,000vpd of local traffic and through traffic to the New Upstream Bridge. With modest traffic demands and the limited ability of Stoney Creek Road to divert commuter traffic, Stoney Creek Road should be classified as a minor arterial. Notwithstanding this conclusion, the form and function of Stoney Creek Road should be reviewed as the PNCC's eastern urban growth patterns and strategies become more certain and when the New Upstream Bridge becomes part of the network.

### *Rural Ring Road*

The proposed road hierarchy provides the framework for a Rural Ring Road incorporating KB Road and Stoney Creek Road. The connection between these sections of the ring road will ultimately be enhanced by a southern bypass of Bunnythorpe.

Stoney Creek Road forms the eastern leg of the ring road connecting to the New Upstream Bridge and SH57 forms the southern leg. KB Road forms the northern leg and Rongotea Road forms the western leg which could connect to a new downstream bridge in the longer term and on to SH57 to complete the ring road.

Each leg of the ring road serves important route functions in its own right. There is minimal overlap of these functions, with virtually no requirement for traffic to circulate around Palmerston North on a Rural Ring Road. Nevertheless, the concept of an integrated network has merit and hence there is long term merit in forming a Rural Ring Road.

### *Ashhurst*

Ashhurst Road is already of a standard suitable for a low-volume inter-regional route requiring only modest upgrading.

In Ashhurst the existing through route is via Mulgrave Street, Hillary Crescent and Cambridge Avenue. This route will require intersection improvements and upgrading of the rail overbridge prior to designating it as an inter-regional route, and will give rise to only minimal conflicts with local traffic.

The volume of inter-regional traffic through Ashhurst is estimated at about 1,000vpd in 2021 and this traffic will have only minor community impacts. To mitigate these effects in the longer term, provision should be made for a new link between Mulgrave Street and Short Street.

### *Commuter Routes*

There are currently two major commuter routes between Feilding and Palmerston North via Milson Line and Railway Road. On its approach into Palmerston North, Milson Line (SH54) divides into a direct route to Ruahine Street via Milson Line and to Rangitikei Street via KB Road (SH54) and Rangitikei Line (SH3). With Milson Line open, the effect of the proposed Bunnythorpe Western Bypass connecting to Railway Road will be to divert around 1,500vpd off Milson Line onto Railway Road.

With this traffic diversion off Milson Line resulting from the proposed western bypass of Bunnythorpe, Rangitikei Line and Railway Road will become the major commuter routes, so that Milson Line south of KB Road can then be treated as a minor arterial. In this role, allowance can be made for the possibility of either a deviation to enable an extension of the airport runway, which would divert more traffic, or the ultimate closure of Milson Line, at which time volumes would divert predominantly to Rangitikei Line and Railway Road, so that the remaining northern section of Milson Line to KB Road would become a local road and the remaining southern section would be a collector as far as Flyers Line.

### *Palmerston North Urban Network*

Palmerston North has a well developed urban road hierarchy which is consistent with the proposed road hierarchy for the rural area.

This study recognises the importance of Tremaine Avenue as a major east-west route to serve cross-town traffic, to provide access to commercial and industrial development and to distribute Feilding to Palmerston North commuter traffic. While the extension of JFK Drive northwards as Airport Drive through to Railway Road provides a parallel route that diverts some traffic, Tremaine Avenue will continue to be the major east-west route on the north side of Palmerston North and will need to be further developed as a major arterial road.

While this study has not included a detailed investigation of the Palmerston North urban road network, but rather assumed a number of capacity improvements so that the performance of the urban road network does not unduly affect assessment of the rural network options, it is suggested that some intersection and associated mid-block improvements along Tremaine Avenue will be required by 2021. These improvements are not expected to affect the selection of the preferred rural network but, importantly, need to be investigated as part of a wider roading study of the Palmerston North urban area, as and when the PNCC's urban growth strategy becomes more certain.

### **Implementation of Road Hierarchy**

Implementation of the proposed road hierarchy requires:

- road improvements
- planning provision for new links
- planning provision for route protection.

### *Road Improvements*

The road improvements required to give effect to the proposed road hierarchy consist of:

<b>PROJECT</b>	<b>POSSIBLE FORM</b>
Rangitikei Line/KB Road Intersection Upgrade	Roundabout
KB Road: Rangitikei Line - Milson Line Seal Widening	10m
Milson Line/KB Road Intersection Upgrade	Roundabout
KB Road: Milson Line - Bunnythorpe Seal Widening	8.5m
Bunnythorpe Western Bypass on Te Ngaio Road including Waughs Road Link	10m
Bunnythorpe Western Bypass/KB Road Intersection Upgrade	Roundabout
Bunnythorpe Southern Bypass	8.5m
Ashhurst Road Upgrade	8.5m
Stoney Creek Road Upgrade	8.5m

The first stage of work should be to seal widen KB Road between Milson Line and Bunnythorpe, with associated strengthening of the existing bridges towards its eastern end. This will then enable the various inter-regional routes to be designated and other road improvement works to be progressively implemented.

#### *Planning Provision for New Links*

New links which are required to complete the proposed road hierarchy comprise:

- Bunnythorpe Western Bypass
- Bunnythorpe Southern Bypass
- Ashhurst: Mulgrave Street to Short Street
- Stoney Creek Road to the New Upstream Bridge.

Further investigations are required as part of the implementation plan to determine when planning provision should be made for these new links. These provisions will take the form of designations.

#### *Planning Provision for Route Protection*

The function of inter-regional routes and major arterials is primarily to serve through traffic. There is a need, which is often overlooked in the short term when traffic volumes are low, to protect these routes from undue conflicts at local road intersections and crossing places into adjoining properties.

There is also a need to plan for the road network, including inter-regional routes and major arterials, to provide safe and efficient access for local traffic and to support local economic and residential development. Hence, the respective and often conflicting needs of through traffic and local traffic need to be balanced, by developing structure plans for the management and development of arterials to govern future access. Existing roads which need these plans are:

- KB Road
- Railway Road
- Stoney Creek Road
- SH57 through Aokautere.

A traffic and access management plan should also be developed for the NEIZ.

A structure plan may also be required for Ashhurst Road and Mulgrave Street-Hillary Crescent-Cambridge Avenue in Ashhurst, if and when there is any new development for which access arrangements need to be determined.

In addition, structure plans should also be developed, in due course, for the new links involving the western and southern bypasses of Bunnythorpe and the approaches of the New Upstream Bridge, which themselves would also require a process of designation as new roads.

### **Alternative Modes**

A major element of the current (2006-2015) and next update of the Regional Land Transport Strategy for the Manawatu-Wanganui region to meet the objective of a sustainable land transport system involves provision for alternative modes, specifically public transport and cycling.

Apart from the need to provide public transport services for the 'transport disadvantaged' who do not have ready access to a private car, a critical public transport issue in the region is the need to provide comprehensive services between Palmerston North and Feilding, to minimise private car dependency for trips in this corridor. An overall aim for the planning and provision of additional future services should be to minimise traffic growth. Even then, the resulting changes and anticipated ongoing increase in bus passenger numbers would not be of a level to influence the strategic preferences and recommendations of this study.

With respect to cycling, the area's topography combined with Palmerston North's role as a 'student city' is reflected in the significant presence of cycling as a transport mode. The cycling strategy for Palmerston North provides for a comprehensive network of cycleways on most primary roads which have been well implemented over many years, in conjunction with a series of attractive off-road paths. Extended provision will be made for cyclists by way of widened roads, as appropriate, on the improved strategic network as the road designs are developed.

### **State Highway Review**

A review of the designation of state highways within the study area will also be needed in determining network responsibilities.



## Appendix 5. Glossary of terms

**Active transport modes** – also known as non-motorised transportation. Includes walking, cycling and small-wheeled transportation (skates, skateboards and push scooters).

**Approved organisations** - organisations that are eligible to receive funding from the NZTA for land transport activities. Approved organisations are defined in the LTMA as including regional councils, territorial authorities, or a public organisation approved by the Governor General (by Order in Council).

**Benefit Cost Ratio (BCR)** - The ratio that compares the benefits accruing to land transport users and the wider community from implementing a project or providing a service, with that project's or service's costs.

**Community transport services** – a transport service set up and provided by a community for members of that community.

**Financial Assistance Rate (FAR)** - the NZTA share of subsidy of a projects total cost.

**Government Policy Statement on Land Transport Funding (GPS)** - issued under Section 86 of the Land Transport Management Act 2003 by the Minister of Transport every three years. The GPS enables the Minister to guide the NZTA and land transport sector on the outcomes, objectives and short- to medium-term impacts that the Crown wishes to achieve through the national land transport programme; and from the allocation of the national land transport fund.

**Palmerston North-Manawatu Joint Transport Study (JTS) 2010** – strategic roading study of the Palmerston North – Manawatu area, involving Horizons Regional Council, Palmerston North City Council, Manawatu District Council and the New Zealand Transport Agency.

**Land transport** - Transport on land (or water) by any means, and the infrastructure, goods and services facilitating such transport, including coastal shipping and associated infrastructure.

**Long-term Council Community Plan (LTCCP)** - the ten year community plan produced by regional and territorial authorities under the Local Government Act 2002.

**Land Transport Management Act 2003 (LTMA)** - the main statutory framework for transport planning and funding in New Zealand.

**Mode share** – the proportion of total transport users using a particular transport mode.

**National (N) funds** – funding from the NLTP that is distributed on a national basis.

**National Land Transport Programme (NLTP)** - the mechanism through which the NZTA allocates funds to approved organisations for land transport infrastructure and services. The NLTP allocates funding to approved organisations across a number of national and regional activity classes.

**New Zealand Transport Agency (NZTA)** - the single Crown entity established under Section 93 of the LTMA 2003 that replaced Land Transport New Zealand and Transit New Zealand from 1 August 2008.

**Regional Land Transport Programme (RLTP)** - as prepared under Part 2 of the LTMA 2003, as from time to time amended or varied. These programmes prioritise stage highway, regional council and territorial authority proposals for transport activities in the region.

**Regional Land Transport Strategy (RLTS)** - a statutory document that must contribute to an overall aim of achieving an integrated, safe, responsive and sustainable land transport system. It sets the high level framework for regional transport policy and investment priorities over the next 30 years.

**Regional (R) funds** - funds from a 5 cent per litre increase in fuel excise duty and an equivalent increase in road user charges for light vehicles, to be distributed regionally on the basis of population for ten years from April 2005.

**Regional Public Transport Plan (RPTP)** – prepared by Horizons Regional Council as required under the Public Transport Management Act 2008. The RPTP provides an overview of the way the regional public transport network will be developed and specifies the public transport services for the region.

**Regional Transport Committee (RTC)** - a committee established under the LTMA. RTCs have representation from regional councils, territorial authorities, the NZTA and the community.

**Road controlling authority (RCA)** - An authority responsible for providing roading outputs. RCAs include NZTA (Highway Networks & Operations division), territorial authorities and the Department of Conservation

**Roads of National Significance (RoNS)** - the government has identified seven RoNS as being New Zealand's most essential routes requiring significant investment. These are: Puhoi to Wellsford (SH1), completion of the Auckland Western Ring Route (SH20/16/18), the Auckland Victoria Park bottleneck (SH1), the Waikato Expressway (SH1), the Tauranga Eastern Corridor (SH2), the Wellington North Corridor (Levin to Wellington, SH1) and Christchurch Motorway projects.

**Transport disadvantaged** - as defined in the Public Transport Management Act 2008, 'people whom the regional council has reasonable grounds to believe are the least able to get to basic community activities and services e.g. work, education, healthcare, welfare and food shopping'.

**Travel Demand Management (TDM)** – a variety of methods that influence whether, when, how and where we travel, with the aim to more sustainably manage travel demand and improve the effectiveness and efficiency of the transport system as a result of a change in people's travel choices.

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