# Wairarapa Corridor Plan Review

## Background and Issues Paper

### October 2009

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# Introduction

The Wairarapa Corridor, for the purpose of regional transport planning, is defined as:

**State Highway 2 from north of Te Marua, Upper Hutt, over the Rimutaka Hill through to Mount Bruce north of Masterton; and the Wairarapa railway line from north of Maymorn, Upper Hutt, through to Masterton; State Highway 53 between Featherston and Martinborough.**

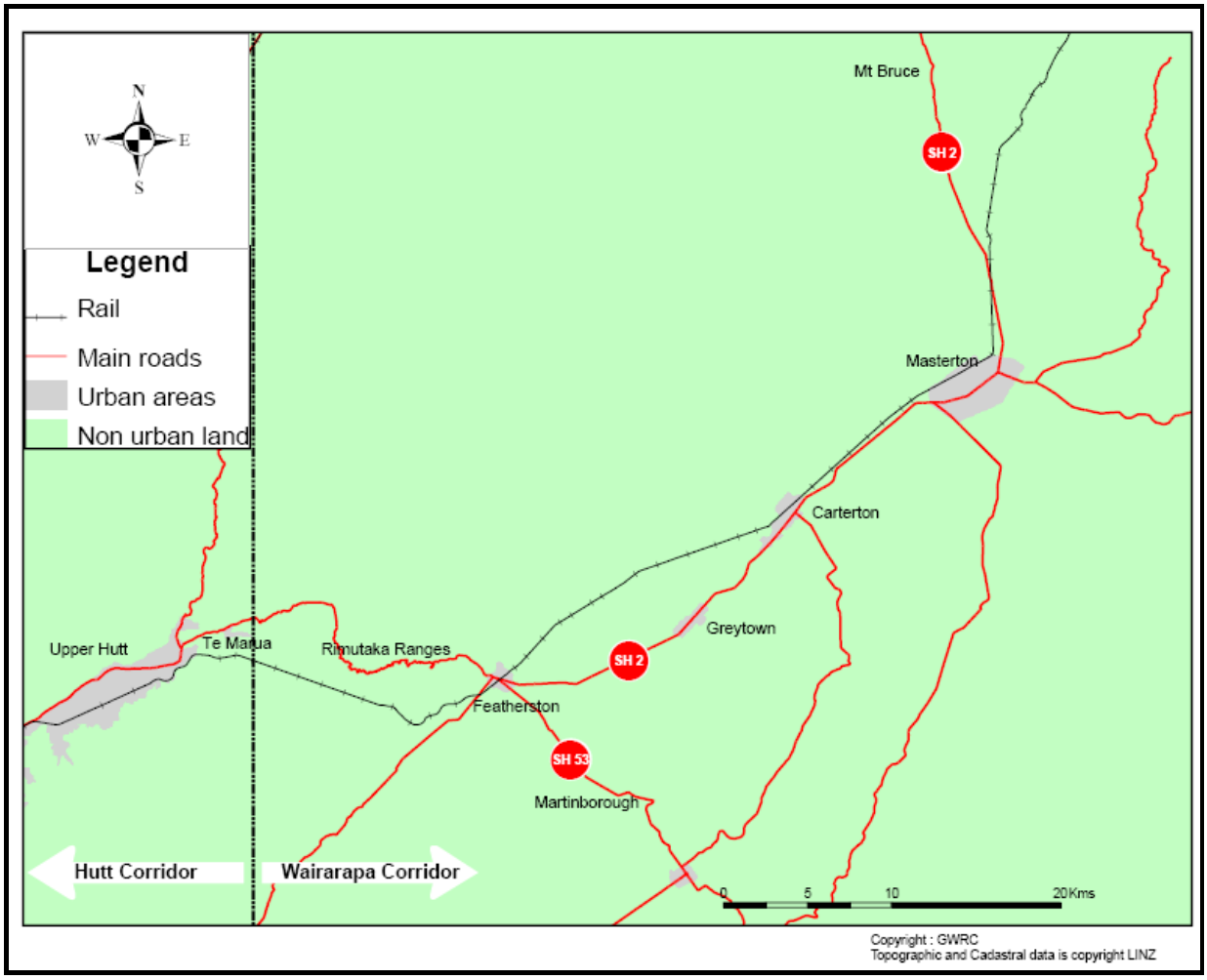



**Figure 1: Extent of the Wairarapa Corridor for the purpose of this plan.**

## Key outcome

The key outcome for the corridor is - *A safer, more reliable road and rail corridor*.

## Current Plan

The current Wairarapa Corridor Plan was adopted in December 2003. It is one of four corridor plans that sets out the issues and needs in each corridor, and identified transport projects to address those needs. The Wairarapa Corridor Plan was the first plan, alongside the Hutt Corridor Plan, to be adopted. It is now due to be reviewed to reflect changes that have occurred in the past 6 years.

## Review process

The review of the existing Wairarapa Corridor Plan will:

- Ensure alignment of the plan with the strategic direction provided by the Regional Land Transport Strategy 2007 – 2016.

- Update the plan to take account of any new trends, information, transport studies and land use policies relevant to this corridor.

This corridor forms an important component of our regional transport network, providing access both within Wairarapa and between Wairarapa and our other regional centres, including the Wellington City CBD. The Wairarapa corridor accommodates lesser traffic volumes and trip making, and is less complex than the other transport corridors in the region. The scope of the review is expected to reflect this.

The existing corridor plan identifies a number of planned improvements for the first ten years and the following ten years. Many of the projects identified to progress in the first ten years have now been partially or fully implemented. The focus of the review will be to determine whether those projects identified as beyond ten years in the existing plan are still relevant, whether they should be brought forward, and whether any other projects or initiatives are required to address emerging issues.

## Background work

This paper outlines the current policy framework, links to other transport and land use plans and policies, the current trends and issues, and a review of projects in the existing corridor plan. The paper will assist the technical working group to identify any new issues and therefore gaps that may require additional projects or activities to address them.

# Policy context for the corridor plan review

## 1. National context

### 1.1 New Zealand Transport Strategy 2008

The New Zealand Transport Strategy (NZTS) 2008 provides an update to the previous 2002 strategy. The strategy seeks to provide direction to the transport sector about its role in supporting the government's overall vision for sustainability.

The government's vision for transport in 2040 is that: '*People and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system.'*

The NZTS identifies a number of key challenges for the transport sector if the vision is to be achieved including responding to climate change, energy security and cost, funding transport investment while keeping transport affordable, environmental and social impacts of transport, changing demands from an aging population, land use development and impact on demand.

The five government objectives for transport are:

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

The strategy establishes targets across the range of objectives, many with long term (2040) timeframes. This includes the target from the National Energy Strategy to: *'Halve per capita greenhouse gas emissions from domestic transport by 2040'*.

### 1.2 Government Policy Statement (GPS) on Land Transport Funding

While the NZTS 2008 has a long-term outlook, the GPS provides for shorter-term 'impacts'.

The GPS details the government's desired outcomes and funding priorities for the use of the National Land Transport Fund to support activities in the land transport sector. The GPS will be in effect from July 2009 to July 2012.

The GPS sets out the 'impacts' that the government wishes to achieve through investment in land transport. These are:

**Impacts that contribute to economic growth and productivity**

- Improvements in the provision of infrastructure and services that enhance transport efficiency and lower the cost of transportation through:
  - improvements in journey time reliability
  - easing of severe congestion
  - more efficient freight supply chains
  - better use of existing transport capacity.
- Better access to markets, employment and areas that contribute to economic growth.
- A secure and resilient transport network.

**Other impacts**

- Reductions in deaths and serious injuries as a result of road crashes.
- More transport choices, particularly for those with limited access to a car where appropriate.
- Reductions in adverse environmental effects from land transport.
- Contributions to positive health outcomes.

The GPS identifies State Highway 1 between Levin and Wellington as a Road of National Significance (RoNS) for the Wellington Region. This means that the NZ Transport Agency is likely to give higher priority to funding projects along this route ahead of other projects in the region.

## 1.3 Safer Journeys 2020

The government's Road Safety 2010 strategy is currently being reviewed through development of a new strategy called Safer Journeys 2020. The strategy is based around a 'safer systems' approach which includes safer vehicles, safer roads and roadsides, safer drivers and safer travel speeds.

In addition to identifying changes to legislation and systems at the national level, the strategy will signal priorities that local road safety programmes will need to be well aligned with.

### 1.4 NZ Energy Strategy and NZ Energy Efficiency and Conservation Strategy

The New Zealand Energy Strategy (NZES) to 2050 and its statutory sub-set the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) were published in October 2007.

The NZES sets the strategic direction for the energy sector, including clear priorities for investment in renewable energy generation, efficient transmission, efficient energy use and new technologies. Included in this direction is the need for *'resilient, low carbon transport'* and the development of policies to encourage greater provision for public transport, walking and cycling.

The NZEECS sits under the NZES and sets out actions to promote more efficient use of energy. It focuses on implementation by sector, identifying the main measures, policy instruments and those responsible for them. For the transport sector, the objective is *'To reduce the overall energy use and greenhouse gas emissions from New Zealand's transport system'*.

NZEECS includes a number of targets against which to assess progress. These include the following:

- To reduce per capita greenhouse gas emissions from the transport sector by 50 percent from those in 2007 by 2040; and
- To reduce the kilometres travelled by single occupancy vehicles, in major urban areas on weekdays, by 10 percent per capita by 2015 (compared to 2007).

## 2. Regional context

### 2.1 Wellington Regional Land Transport Strategy (RLTS) 2007 – 2016

The current Wellington RLTS was adopted by Greater Wellington in July 2007 following a comprehensive review. The strategy identifies a number of objectives, policies, outcomes and 2016 targets for the region's transport network.

We note that the strategy is currently being reviewed to update it in accordance with the amended legislation provided by the Land Transport Management Amendment Act 2008. The review is expected to result in a 'refresh' of the current RLTS rather than a full re-write as the strategy is fairly robust and is well aligned with current central government direction. The final Wairarapa Corridor Plan will need to take account of any revised policies coming out of the RLTS review as these are developed and confirmed.

**RLTS Vision**

*'To deliver, through significant achievements in each period[1], an integrated land transport system that supports the region's people and prosperity in a way that is economically, environmentally and socially sustainable.'*

The following commentary supports the strategy vision and relates to the Wairarapa corridor:

*The local road network will provide local access to the State Highways and the rail network, which in turn will connect these areas with the Wellington City CBD and other regional centres. Basic, but reliable, local passenger transport (and Total Mobility) services will be easily accessible.*

The RLTS also contains the following region wide strategic outcomes:

- Increased peak period passenger transport mode share.
- Increased mode share for pedestrians and cyclists.
- Reduced greenhouse gas emissions.
- Reduced severe road congestion.
- Improved regional road safety.
- Improved land use and transport integration.
- Improved regional freight efficiency.

## 2.2 Proposed Regional Policy Statement (RPS)

The RPS provides the policy framework for resource management issues and land use planning for the region and is a particularly important document as District Plans are required to give effect to it.

The proposed RPS includes objectives, policies and methods relevant to travel demand management. Appropriate provisions in the RPS and District Plans are vital to encouraging future land use development which supports an efficient and sustainable transport system.

## 2.3 Wellington Regional Strategy (WRS)

The WRS is a sustainable growth strategy for our region. It was developed by the nine local authorities in the region, working in tandem with central government and business, education, research and voluntary sector interests.

Broadband is identified as a key enabler of economic growth, particularly around innovation and productivity benefits. The potential for broadband to provide access for rural areas and to reduce travel demand is also recognised. A Regional Broadband Plan to establish a fibre broadband network for the region has been developed under the WRS. This is currently being reviewed to align with the government's broadband investment approach.

[1] Short term 0 - 3 years; medium term 4 - 10 years; long term beyond 10 years.

# Links with other transport and land use studies and plans

## 3. State Highway strategies and plans

### 3.1 SH2 Upper Hutt to Featherston - short term safety upgrades

The NZTA undertook a number of studies for SH2 between Upper Hutt and Featherston to identify what could be done to improve the route. The final crash reduction study report (November 2008) recommended a number of safety improvements that are now being implemented. These include new curve advisory signs, wider edgelines, new no-passing lines, new edge marker posts, extra guardrail, and removal of two short passing lanes. This work is now underway. Further guardrail improvements and road marking trials are scheduled for the 2009/10 year, as funding permits.

Electronic curve warning signs (triggered by excessive speed) at 'Beehive corner' on the Featherston side of the Rimutaka Hill are also to be investigated.

### 3.2 SH2 Muldoons Corner Easing

On 11 February 2009 the Minister of Transport announced that the Muldoons Corner Easing project would proceed later in 2009. The financial injection provided by the government's Jobs and Growth plan means that the preliminary work on the project is underway, 30 months ahead of schedule, with earthworks expected to start in September 2009.

The $16.5 million upgrade will improve safety by easing a number of tight curves, including Muldoons Corner, will improve visibility, and provide better northbound edge protection from the valley. The Muldoons Corner Easing project was excluded from the study to develop a long term plan for Featherston and Upper Hutt (section 3.1.3) as it had already been subject to comprehensive investigations and economic analysis.

The project is expected to take up to three years to complete and has a target completion timeframe of mid 2012.

### 3.3 SH2 Upper Hutt to Featherston Study

A State Highway Plan from Featherston to Upper Hutt was completed in October 2008, by Duffill Watts&Tse Ltd on behalf of the NZTA. The plan identifies issues along this stretch of SH2 and covers growth, security and alignment.

The plan notes that the route is considered to reach capacity on special events such as the Martinborough Fair where Average Annual Daily Traffic (AADT) is found to exceed 10,000 Annual Daily Traffic (ADT). The route is forecast to meet/exceed 10,000 ADT around 2046 depending on factors such as demographics, fuel prices and growth rate. It also notes that the perception of acceptable congestion or when a route reaches capacity may change considerably between 2008 and 2046.

The study to develop the plan included looking at two tunnel options – one long tunnel covering the whole Rimutaka Hill route, and one short 'summit tunnel'. The very low

benefit cost ratios (BCRs) for the tunnels (0.2 and 0.3) meant that they were not included as viable options in the final plan.

The plan proposes a number of policies, action plans and improvements that combined will provide for a minimum travel speed of 55km/h, as well as a safe environment for all road users. The improvement projects include a number of re-alignment schemes, intersection improvements at Featherston and Upper Hutt, and several passing lanes at a total cost of around $45m. Many of the improvement projects are grouped on the assumption they would need to be done together.

The benefit cost ratios of all the proposed combined schemes are marginal at 1.0 or slightly above. As individual projects the results are very similar, but with three projects falling below a BCR of 1.0. The only exception is Scheme 2 (bend realignment at Bridge No5 SH2 RP921/4.10-4.40) which has a reasonably high BCR of 3.8, and it is recommended that this be investigated further.

The Plan states that most schemes are not fundable due to their marginal BCR and therefore completing the route with a minimum alignment speed of 55km/h should be a long term planning aim. The timing of the improvements will be dependent on traffic growth and funding source. In the interim, short term improvements should be gained by ongoing maintenance and safety improvements.

## 3.4 SH2 Mt Bruce to Featherston Strategy Study

This strategic highways study was carried out between 1998 and 2000, with the final report published in September 2000. It covered the section of SH2 from Mt Bruce through to the intersection of SH2 and SH53 near the northern end of Featherston.

The study looked at SH2 as it runs through both the rural and urban parts of Wairarapa, including the existing highway and traffic characteristics, capacity, realignments, intersections, seal widths, passing opportunities, bridges and tunnels, road safety, limited access, signage, rest areas, effluent disposal sites, pedestrian and cycle facilities, and many other aspects.

The study concluded by identifying the following needs and issues for the state highway corridor:

- limited opportunity for new passing lanes (other than the newly constructed north/south lanes between Masterton and Carterton)
- the investigation of Waiohine Bridge for replacement
- a new railway overbridge at Opaki
- a number of realignment works
- the need for additional stock effluent sites at Featherston and Woodville
- the need to look at bridges on a case by case basis as to need for additional width to accommodate cyclists
- several intersection improvements and seal widening

- potential future bypasses at Clareville and Masterton (Eastern)
- short-term congestion improvements and long term bypass potential for Carterton and Greytown.

Some of these things have now been addressed (eg. Waiohine Bridge replacement) and others remain outstanding.

NZTA reviewed this Study in 2008 with a view to updating it, but decided upon review that the report was still relevant.

## 3.5 Crash Reduction Study - SH2 between Carterton and Masterton

MWH is currently finalising a Crash Reduction Study report which covers the section of SH2 between Carterton and Masterton. This section represents the sixth Network Safety Corridor that has been identified within the Wellington region. The study aims to identify potential safety improvements, primarily focusing on the worst intersections.

At this stage there is no specific funding programme for recommended treatments arising from the study although there are a number of intersections being treated this year from the safety programme that will be included in the report.

## 3.6 State highway projects scheduled in the NLTP

There are two capital projects scheduled in current NLTP:

- SH 2 Buchanans Rd intersection (approach to Masterton) – Investigation & Design in 2009-12 NLTP (probable)
- SH 2 Norfolk Rd intersection (linked to Wine Growers Industrial Estate Development – potential for roundabout on SH2) – Investigation & Design in 2009-12 NLTP (probable).

Significant maintenance activities scheduled over next three years are:

- Waihenga Bridge Replacement ( Investigation & Design); and
- Upgrading of side protection on Opaki Rail Overbridge (SH 2) scheduled in next 3 years as part of structural renewals programme. Bridge renewal tentatively scheduled for 20-25 years.

NZTA advise that the balance of the programme is business as usual.

# 4. Public Transport Plans and Reviews

## 4.1 Regional Rail Plan

The Wellington Regional Rail Plan, endorsed by Greater Wellington's Transport and Access Committee on 26 November 2008, provides for the long term development of our region's rail network. It sits alongside the Regional Land Transport Strategy. Implementation of the plan is a condition of ongoing rail funding from various Crown sources.

The purpose of the plan is to maintain and grow rail's position as the key transport mode for long to medium distance and high volume transport services over the next 25 years. It covers the four rail corridors within the region (Johnsonville, Paraparaumu, Melling, Hutt/Wairarapa), plus the train service that operates from Palmerston North. While projects are already underway for a number of improvements, such as the order for new rolling stock, the plan provides for the longer term improvement of the rail network once current developments are complete.

The preferred pathway in the plan includes the base case of committed improvements (many of which are underway or in place already), followed by a number of different scenarios to address reliability, frequency, capacity, journey time and reach (coverage). The first of these, Rail Scenario One, was given a 'high' priority (priority three) amongst the major transport projects for the region in the Wellington Regional Land Transport Programme, adopted in June 2009.

In relation to the Wairarapa corridor, the base case included 24 cars for the Wairarapa rail services (18 SW cars that are now in service, plus 6 additional SE cars that currently operate an express service on the Hutt line once all the new Matangi units are in service). In addition, network wide track and signal upgrades that are currently underway will have a positive impact on the reliability of the Wairarapa rail services. No further significant improvement projects, other than station upgrades and park and ride improvements, are planned for rail services north of Upper Hutt are proposed in the first ten years covered by the corridor plan. Under the Rail Scenario B of the preferred pathway that 'shuttle' services are proposed between Masterton/Maymorn and Upper Hutt as a way of doubling the current number of Wairarapa line services. This scenario is currently signalled for 2020 and beyond, although this type of initiative could be brought forward depending on progress in developing the rail network, demand, and the availability of suitable rolling stock (eg. the Auckland 'push-pull' trains).

## 4.2 Wairarapa Bus Service Review

A comprehensive review of Wairarapa bus services was undertaken in 2006. As a result, a number of improvements were recommended including additional bus connections to train services, additional inter-peak bus services, some Sunday bus services, 5 day/week Masterton town bus services, initial Wairarapa integrated ticketing products and new Metlink signage. These have since been implemented (see Appendix A for more detail).

Another bus service review is expected within the next ten years and it is appropriate that this be signalled in the corridor plan. There is strong integration between bus and rail services in Wairarapa and any future review would need to take account of any plans for rail improvements.

# 5. Land use plans

## 5.1 Proposed Wairarapa Combined District Plan

The South Wairarapa, Carterton and Masterton District Councils have chosen to prepare a combined District Plan so that consistent policies and methods will be used to address Wairarapa's significant resource management and cross boundary issues.

The Proposed Wairarapa Combined District Plan was publicly notified on 26 August 2006. The proposed plan is expected to become fully operative in the near future following the resolution of a few outstanding appeals.

The 'Significant Resource Management Issues' identified under the transportation heading in the plan include:

1. The safe and efficient operation of Wairarapa's road and rail network can be adversely affected by land uses and development, such as through additional traffic volumes on busy roads, unsafe access and intersection arrangements, and over use of roads for parking.
2. The sustainable growth and development of Wairarapa depends on the capacity and efficiency of the transportation network to meet current and future demands.
3. The benefits of maintaining an efficient transport network need to be balanced with the adverse effects on the environment that can result from the use and development of the network.
4. The safe and efficient functioning of the Hood Aerodrome and its future development could potentially be jeopardised by development in close proximity.

The plan recognises that the transportation network is critical to ensuring Wairarapa grows and develops, and to enable the social and economic wellbeing of the community to prosper. It states that the transportation network should continue to be developed to support the strategic and sustainable growth of Wairarapa, and that the transport network and urban growth need to be managed in an integrated way.

While the rate of urban growth in Wairarapa is not large, there is still a steady and ongoing demand for urban development, particularly in Masterton and in the larger coastal settlements. The plan identifies several 'growth areas' to accommodate future growth pressures and ensure that they are planned in an integrated way using structure plans.

## 5.2 Waingawa Structure Plan

At Waingawa, the industrial zoning has been expanded to provide additional opportunities for industrial development to occur. A structure plan for the overall development of the Waingawa industrial site, including potential for an inland log transfer site, has been included in the Combined District Plan in Appendix 12. This is consistent with the Regional Freight Plan (2007) and existing Wairarapa Corridor Plan.

## 5.3 Carterton South Structure Plan

A Structure Plan for the South Carterton area has been developed in response to the submissions from members of the community on the Proposed Wairarapa Combined District Plan who sought retention of the low density character area and better long term planning for the area.

The three draft options developed for consultation included identification of some new local road linkages, pedestrian and cycleways, locations for pedestrian overbridges across railway, and potential sites for a new shopping centre and school.

The final draft Structure Plan has now been adopted by Carterton District Council. It plan identifies parts of the study area that would be appropriate for 'medium density' residential development – ie. a minimum lot size of 1000m2, instead of the current 2000m2 under current provisions. Following the consideration of public feedback, the Council plans to develop a formal Plan Change to the Combined District Plan.

## 5.4 Maymorn Structure Plan

Upper Hutt City Council is currently preparing a structure plan to accommodate around 2000 new lots in Maymorn over a 20 year period. This would have implications for both State Highway intersections and the rail network in terms of accommodating the additional demand.

Under the Regional Rail Plan, Rail Scenario B sets out a number of passenger transport options which would support future growth in the Maymorn area.

- Additional rolling stock on the Wairarapa Line may mean increased capacity on existing services or increased frequency of services between Masterton and Wellington.
- Rail or bus 'shuttle' services are proposed (nominally around 3 trains per hour) that will link passengers with peak period services on the electrified network.

Rail Scenario B is scheduled for the year 2020 under the preferred pathway – but could be brought forward based on need or demand. This scenario does not include extension of the electrification network through to Maymorn as it is not considered to be viable due to the expected cost. Other public transport options could include new bus services linking passengers with Upper Hutt Station or extending park and ride facilities at Upper Hutt Station

The technical working group decided that issues relating to State Highway 2 intersection safety and capacity, and future public transport improvements associated with future development at Maymorn are best considered through review of the Hutt Corridor Plan in 2010.

# Transport system pressures and issues

## 6. Land use characteristics

Wairarapa is predominantly rural in character, but has a range of rural, residential, commercial and industrial land uses. Productive uses in the rural environment range from intensive horticulture and viticulture through to extensive forestry and pastoral grazing. Rural land uses are constantly changing and the ongoing prosperity of Wairarapa is largely dependent upon its continued and evolving primary production sector.

Residential areas include those within the main urban communities of Masterton, Carterton, Featherston, Martinborough and Greytown, along with smaller coastal and rural settlements. There are five town centres, as well as a number of smaller neighbourhood shopping centres. Masterton, as the largest urban area in Wairarapa, has several small suburban shopping centres in addition to the large central commercial zone. The town centre, centred on Queen Street, is largely contained within two major arterial streets (Chapel and Dixon), and most recent retail development has been well accommodated within this area, with adequate capacity for further development.

Most of the industrial land use is contained within the urban environment, with many industrial areas forming an integral part of Wairarapa's towns. However, there are a few large sites located in the rural environment. In particular, the industrial area at Waingawa, west of the State Highway 2 Bridge over the Waingawa River, is Wairarapa's principal heavy industrial area, where large industrial activities have been co-located to concentrate the adverse effects and to take advantage of excellent road and rail accessibility, and labour market and services provided by the nearby towns. This area is a logical centre for further growth in large-scale industrial development.

### 6.1 Water shortages and irrigation

Like many Eastern areas of NZ, Wairarapa faces summer water shortages that place limits on the production and therefore profitability of the various land use types present in the region. Lack of reliable water is also limiting the ability for the future productive potential to be achieved. However, the Tararua ranges receive some of the highest annual rainfall in the North Island and it is this water that will be captured, stored and released via a water distribution system[2].

The Wairarapa Regional Irrigation Trust is facilitating the development of a storage-based, region-wide irrigation scheme that will allow the utilisation of the high volume of water available from the Tararua Ranges in the times when the Wairarapa Valley is facing water shortages.

The project, which is supported by a grant from the MAF Community Irrigation Fund, started in July 2008 and is expected to be completed mid 2012.

[2] Ministry of Agriculture and Fisheries website - Community Irrigation Fund Project Summary

# 7. Population

## 7.1 Population and household trend between 1996 and 2006

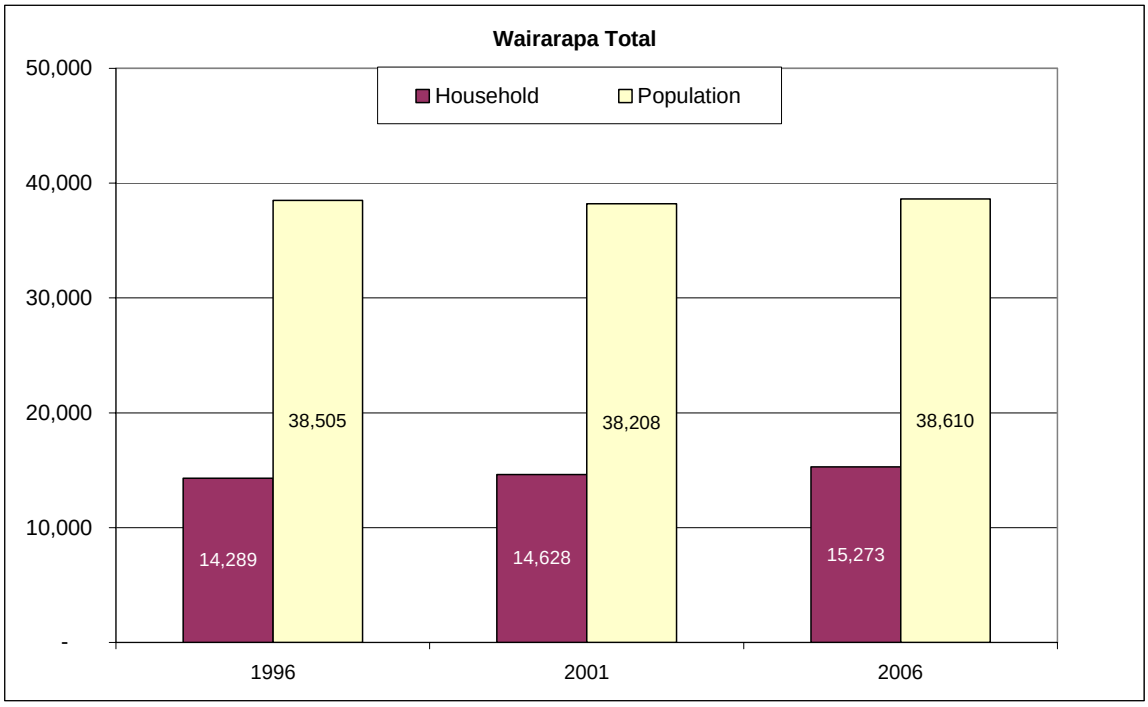



**Figure 2: Wairarapa census night population and household growth 1996 - 2006 (Source: Census data, NZ Statistics)**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Masterton | 23,200 | 23,200 | 23,300 | 23,300 | 23,300 | 23,300 | 23,200 | 23,100 | 23,200 |
| Carterton | 6,840 | 7,000 | 7,050 | 7,120 | 7,170 | 7,200 | 7,260 | 7,300 | 7,360 |
| South Wairarapa | 9,000 | 8,940 | 8,990 | 8,990 | 9,020 | 9,050 | 9,120 | 9,140 | 9,190 |
| **Total** | **39,040** | **39,140** | **39,340** | **39,410** | **39,490** | **39,550** | **39,580** | **39,540** | **39,750** |

**Table 1: Estimated population in Wairarapa between 2000 and 2008 (Source: NZ Statistics)**

The total population of Wairarapa is about 40,000 and has been relatively static over the last decade. Masterton district has around 23,000 residents, the highest population among the three Wairarapa districts. South Wairarapa district has about 9,000 and Carterton district has about 7,400.

The number of households has shown a small increase of around 1000 new households over the 10 year period.

According to the 2006 Census, about 16.4% of the population in Wairarapa are aged 65 and above compared to 12.3% for the whole of New Zealand.

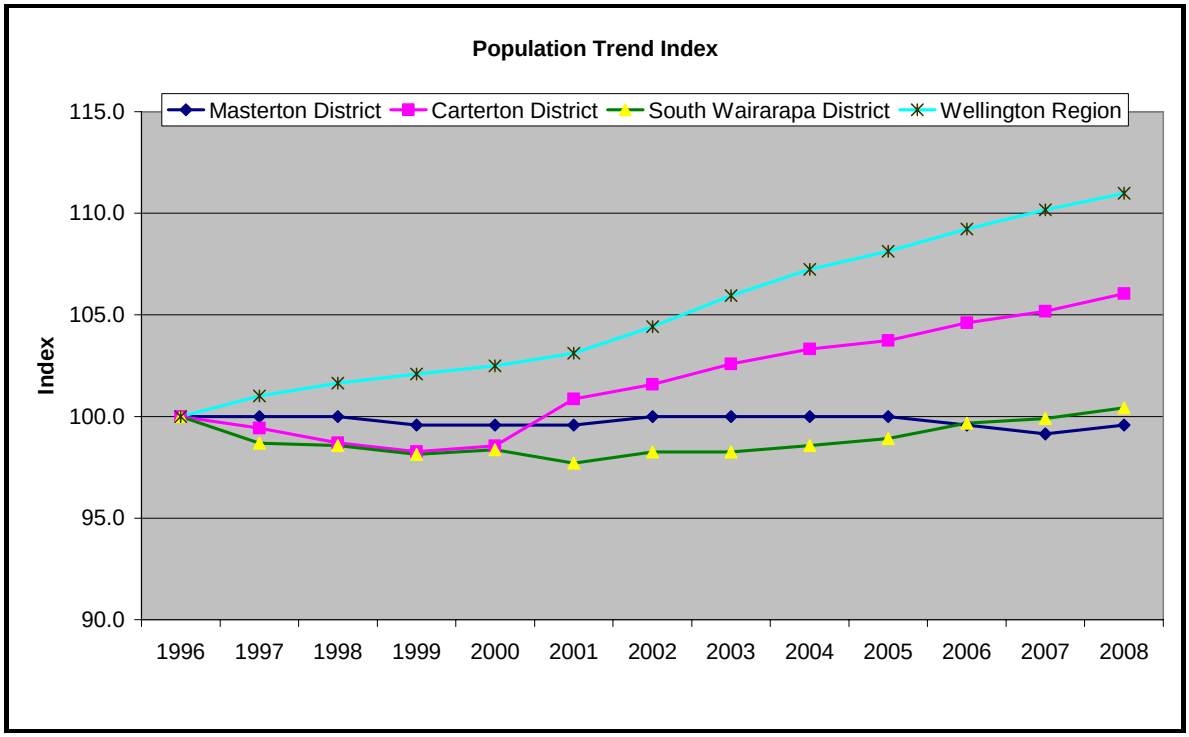



**Figure 3: Population trend in Wairarapa between 1996 and 2008**

## 7.2 Population forecasts

According to Statistics NZ's projection the estimated population growth in Wairarapa will remain more or less the same between 2006 and 2031. The projections for 2031 for the whole of Wairarapa range from an additional 3,200 people in the high scenario, to a decline in population of 4,500 in the low scenario. The medium scenario sees no significant change in population.

| | | Population at 30 June | | | | | | Population change 2006–2031 | |
|---|---|---|---|---|---|---|---|---|---|
| District | Growth Rate | 2006 | 2011 | 2016 | 2021 | 2026 | 2031 | Number | Average annual (percent) |
| | High | | 23,700 | 24,200 | 24,400 | 24,600 | 24,500 | 1,300 | 0.2 |
| Masterton | Medium | 23,200 | 23,300 | 23,300 | 23,200 | 22,900 | 22,400 | -700 | -0.1 |
| | Low | | 22,900 | 22,500 | 22,000 | 21,300 | 20,400 | -2,700 | -0.5 |
| | High | | 7,600 | 7,800 | 8,100 | 8,200 | 8,400 | 1,100 | 0.6 |
| Carterton | Medium | 7,260 | 7,400 | 7,500 | 7,500 | 7,500 | 7,400 | 200 | 0.1 |
| | Low | | 7,200 | 7,100 | 7,000 | 6,800 | 6,500 | -700 | -0.4 |
| | High | | 9,500 | 9,700 | 9,800 | 9,900 | 9,900 | 800 | 0.3 |
| South Wairarapa | Medium | 9,120 | 9,300 | 9,300 | 9,300 | 9,200 | 9,000 | -200 | -0.1 |
| | Low | | 9,100 | 8,900 | 8,700 | 8,400 | 8,000 | -1,100 | -0.5 |
| | High | | 493,100 | 517,900 | 541,200 | 562,900 | 582,700 | 116,400 | 0.9 |
| Wellington Region | Medium | 466,300 | 482,800 | 497,100 | 509,700 | 520,500 | 529,000 | 62,700 | 0.5 |
| | Low | | 472,400 | 476,300 | 478,500 | 478,900 | 476,600 | 10,300 | 0.1 |

**Table 2: Projected population between 2006 and 2031 (2006 base). Source: Statistics NZ**

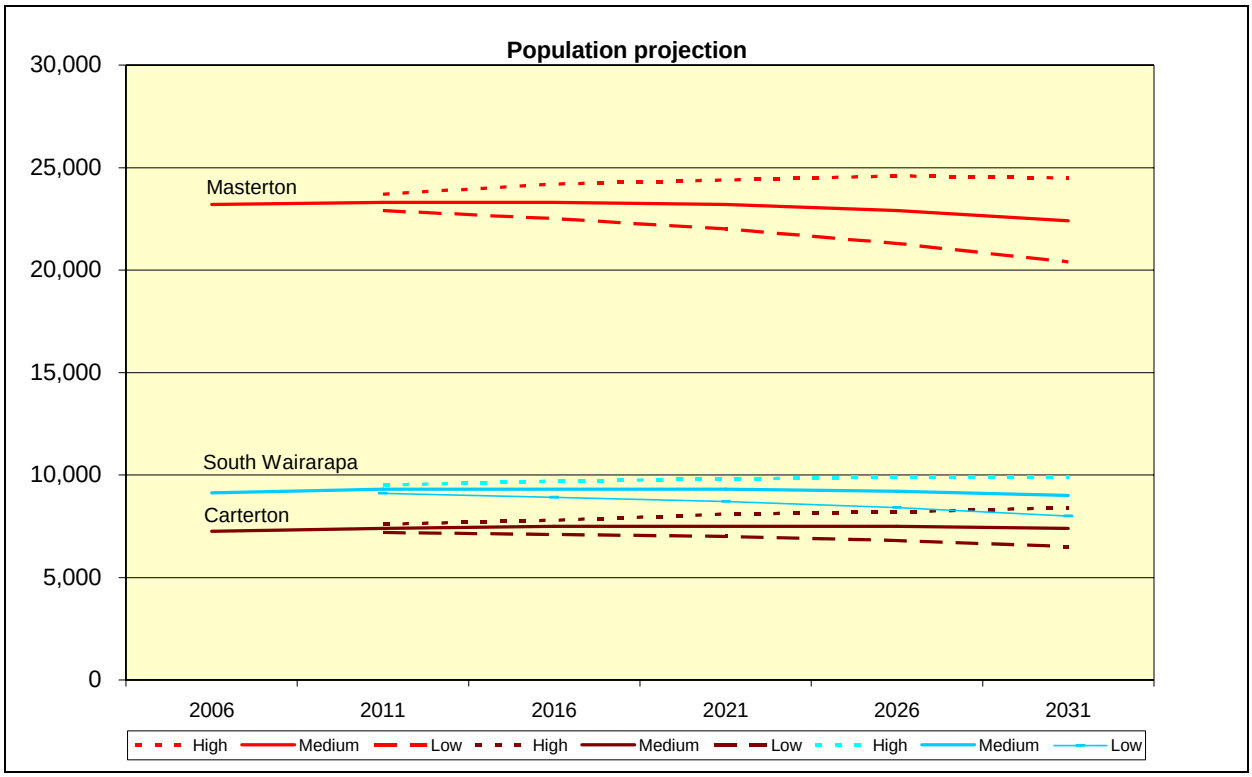



**Figure 4: Projected population in Wairarapa with different growth rates between 2006 and 2031**

# 8. Economic, social and lifestyle trends

## 8.1 Report on economic profile and projections for Wairarapa Region

The Wairarapa Chamber of Commerce, in partnership with the Department of Labour, contracted Business and Economic Research Ltd (BERL) to complete a 20 year report titled 'Economic profile and projections for the Wairarapa Region – November 2008'.

This report provides an economic profile of the Wairarapa Region in 2007 and its performance over the last 10 years. It also provides a detailed analysis of key industries, and projections of employment and GDP to 2026. The report concludes that the key driver industries are based around primary production and processing. However, retail and tourism industries are becoming more important.

Key points from the executive summary are provided below:

- In 2007, the Wairarapa Region employed 14,600 Full-Time-Equivalents (FTEs) in 5,670 businesses and generated $1.13 billion in GDP.

- Agriculture-based industries drive the Wairarapa Region economy. These industries mainly consist of sheep, beef and dairy cattle farming, grape growing in the South Wairarapa district, and forestry.

- The primary sector accounts for 20.6 percent of employment and 18.9 percent of GDP in the Wairarapa Region. Manufacturing, largely food and wood processing, accounts for 14.6 percent of GDP in the Wairarapa Region. These industries are the key drivers in the region and could be considered the backbone of the Wairarapa economy.

- Economic growth in the Wairarapa Region has been mainly positive. Over the last 10 years employment and GDP have grown, but at lower rates than the national average. In the latest period there has been a noticeable increase in both employment and business units.

- There has been a decline over the last decade in both the primary and manufacturing sectors. The impact of this decline has been arrested by growth in other areas such as accommodation, cafes & restaurants, construction, and business services.

The report provides two scenario projections. The first is a neutral scenario, where industries in the region grow at the same rate as nationally. The second is a historical scenario, where industries in the region grow relative to how they have grown over the last 10 years. The first scenario provides a possible future; the second provides a likely future.

Under a neutral scenario, the Wairarapa Region can expect FTEs to increase by 4,257 between 2007 and 2026. This is a growth rate of 1.3 percent per annum over the 19 year period. The scenario suggests that employment growth can be spread across all industries, with the majority of this growth occurring in the manufacturing, retail trade, health & community services, property & business services, and accommodation, cafes & restaurants industries.

Under a historical scenario, the Wairarapa Region can expect FTEs to increase by 2,519 between 2007 and 2026. This is a growth rate of 0.8 percent per annum over the 19 year period. However, employment growth will not be spread across all industries. The vast majority of this growth is projected to be in the accommodation, cafes & restaurants, property & business services, health & community services, and construction sectors. Under this scenario there will be declines in employment in the two main industries – primary and manufacturing.

## 8.2 Employment trends

The graph below illustrates the dominance of the primary, manufacturing and retail trade industries in employment in the Wairarapa region in 2007.

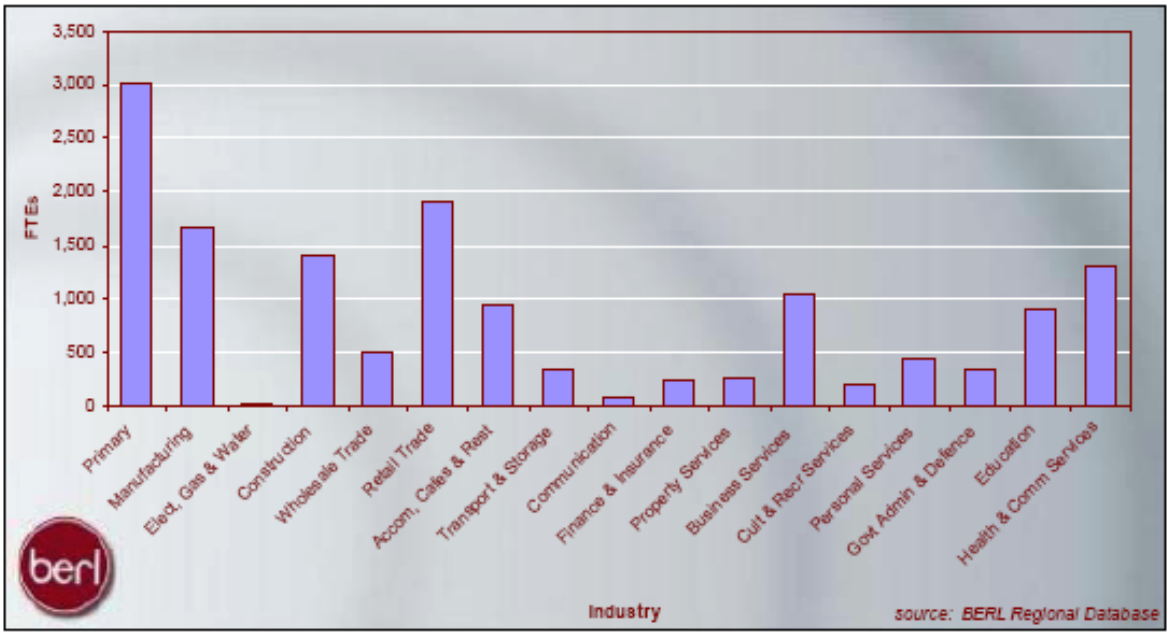



**Figure 5 Employment (FTEs), Wairarapa Region, 2007 (Source: BERL, 2008)**

The primary industry in the Wairarapa region was the largest employer in 2007. This industry can be further broken down into the sectors of agriculture, forestry, fishing, and mining.

Interestingly, retail is the second largest employer in the Wairarapa region. Nationally, retail trade is the third largest area of employment. It is unusual for a rural primary sector based economy to have a retail sector larger than the national average. This suggests that there is additional retail spending in the region, and it is likely to be due to visitor expenditure.

The manufacturing industry is the third largest area of employment in the Wairarapa region. Manufacturing in the Wairarapa region is concentrated in food & beverage manufacturing, solid wood processing (particularly log sawmilling), plywood & veneer manufacturing, and clothing manufacturing.

Other important industries in terms of employment include construction, accommodation, cafes & restaurants, health & community services, and business services (BERL 2008).

Between 1997 and 2007 employment growth in the Wairarapa region was 1.1 percent per annum, below employment growth of 2.4 percent per annum for New Zealand as a whole.

Those industries that experienced a marked increase in employment numbers during this period include accommodation, cafes & restaurants with 8.0 percent growth per annum, business services with 6.7 percent growth per annum, construction with 6.4 percent per annum, and property services with 5.1 percent growth per annum.

In contrast, manufacturing has experienced a 2.1 percent per annum decrease in employment, while a 1.2 percent per annum decrease in employment has occurred in the primary industry (BERL, 2008).

## 8.3 Gross Domestic Product (GDP) trends

In 2007, the largest contributors to Wairarapa GDP were the primary, manufacturing and property services industries. However, retail trade, construction and business services were also major contributors.

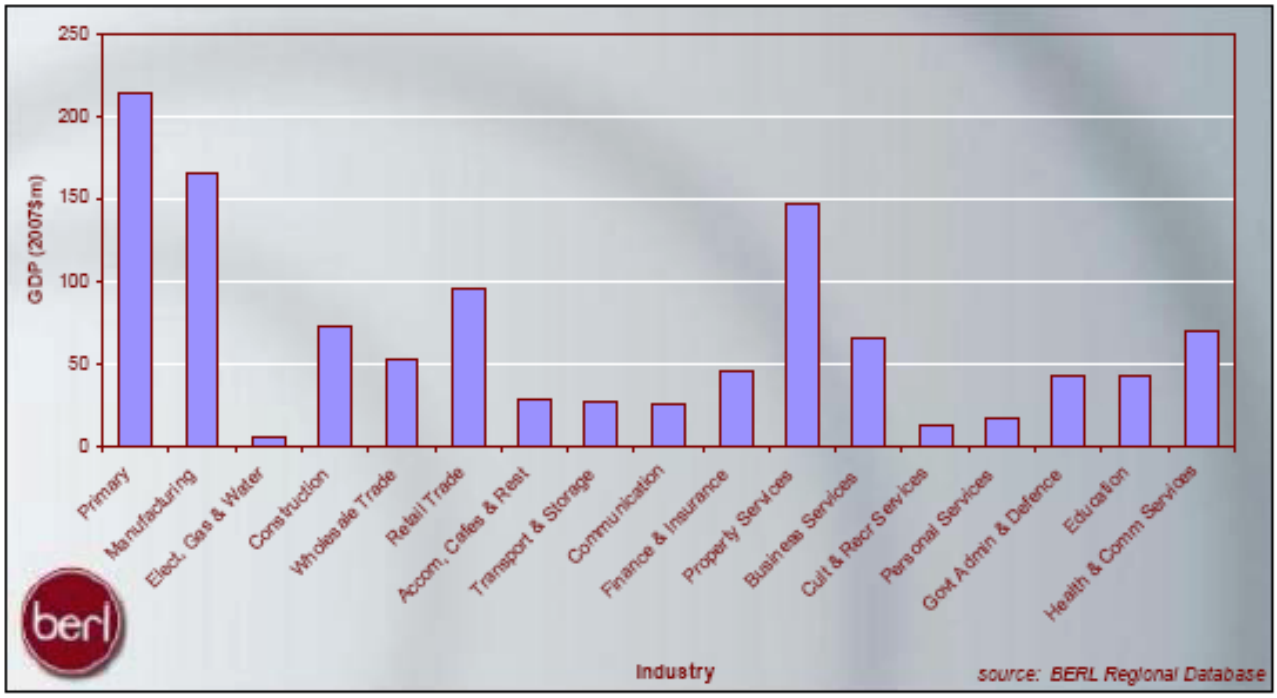



**Figure 6: Gross Domestic Product (GDP), Wairarapa Region, 2007 (Source: BERL, 2008)**

Between 1997 and 2007, the accommodation, cafes & restaurants industry increased its contribution to regional GDP by 6.8 percent per annum; the construction industry increased its share by 5.4 percent per annum; while business services grew 4.7 percent per annum.

The primary and manufacturing industries had negative GDP growth between 1997 and 2007, which is in contrast to the 1.0 percent per annum (primary) and the 1.4 percent per annum (manufacturing) achieved nationally (BERL, 2008).

## 8.4 Income levels

| | Annual income | | |
|---|---|---|---|
| | **Below $25,000** | **$25,001 to $50,000** | **Over $50,000** |
| Masterton | 56% | 31% | 12% |
| Carterton | 55% | 32% | 13% |
| South Wairarapa | 51% | 32% | 17% |
| Wellington region | 46% | 31% | 24% |

**Table 3: Income distribution for Wairarapa districts and Wellington region (source: 2006 Census)**

The above table shows the percentage of people within three income bands from 2006 census data. It shows that, overall, Wairarapa residents have lower annual income levels than the region as a whole.

## 8.5 Household numbers and sizes

### 8.5.1 Household numbers 1996 - 2006

While the population in Wairarapa remained stable, the number of households in Wairarapa showed a small but steady increase between 1996 and 2006.

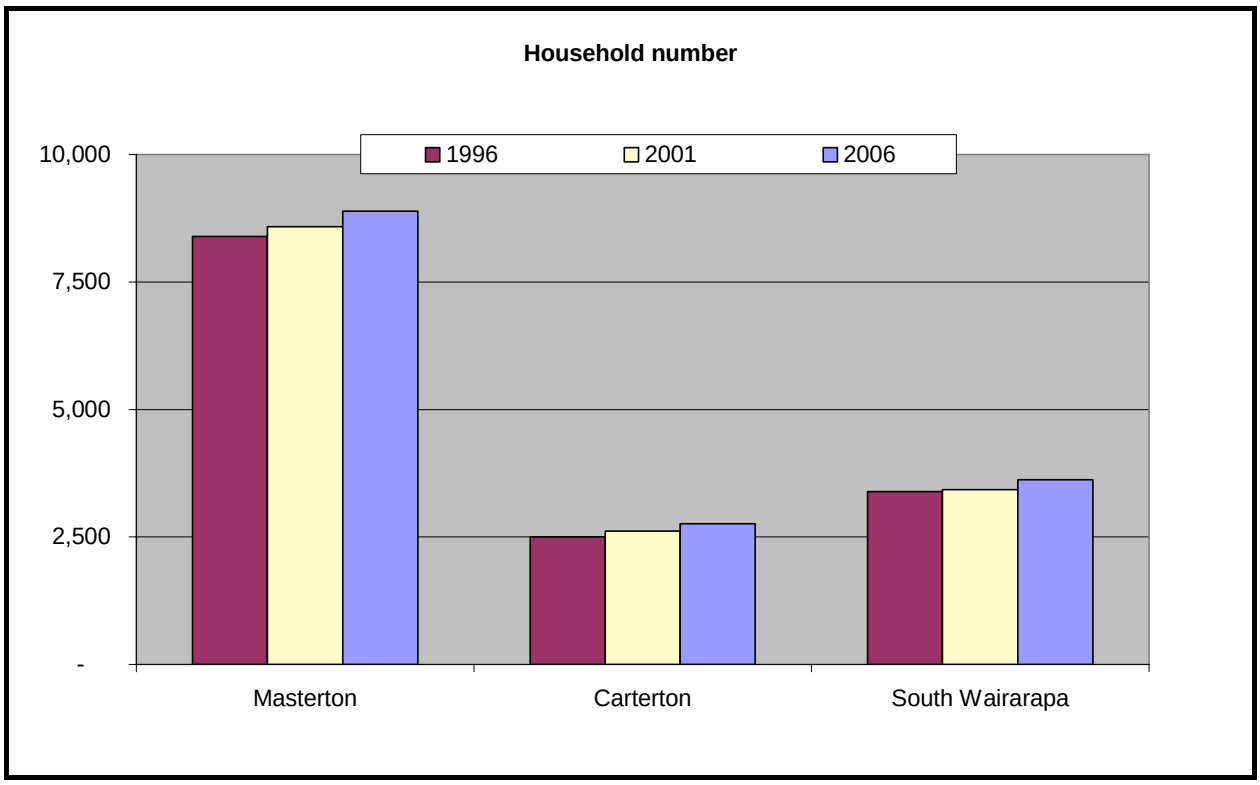



**Figure 7: Household numbers in Wairarapa by district (source: NZ Statistics, Census data)**

### 8.5.2 Household sizes

According to Statistics New Zealand's prediction, the household size in Wairarapa will decrease from 2.5 persons per household (population/household) in 2006 to 2.2 in 2031.

So, despite the fact that the population in Wairarapa is expected to be static between 2006 and 2031, decreasing household sizes and increasing numbers of households is likely to result in some increase in the total number of trips.

## 8.6 Fuel price trends - nationwide

Taking March 2000 as the base for the petrol price index (i.e. 100), between March 2007 and September 2008, the petrol price index has increased from 146 to 208, but has recently fallen again.

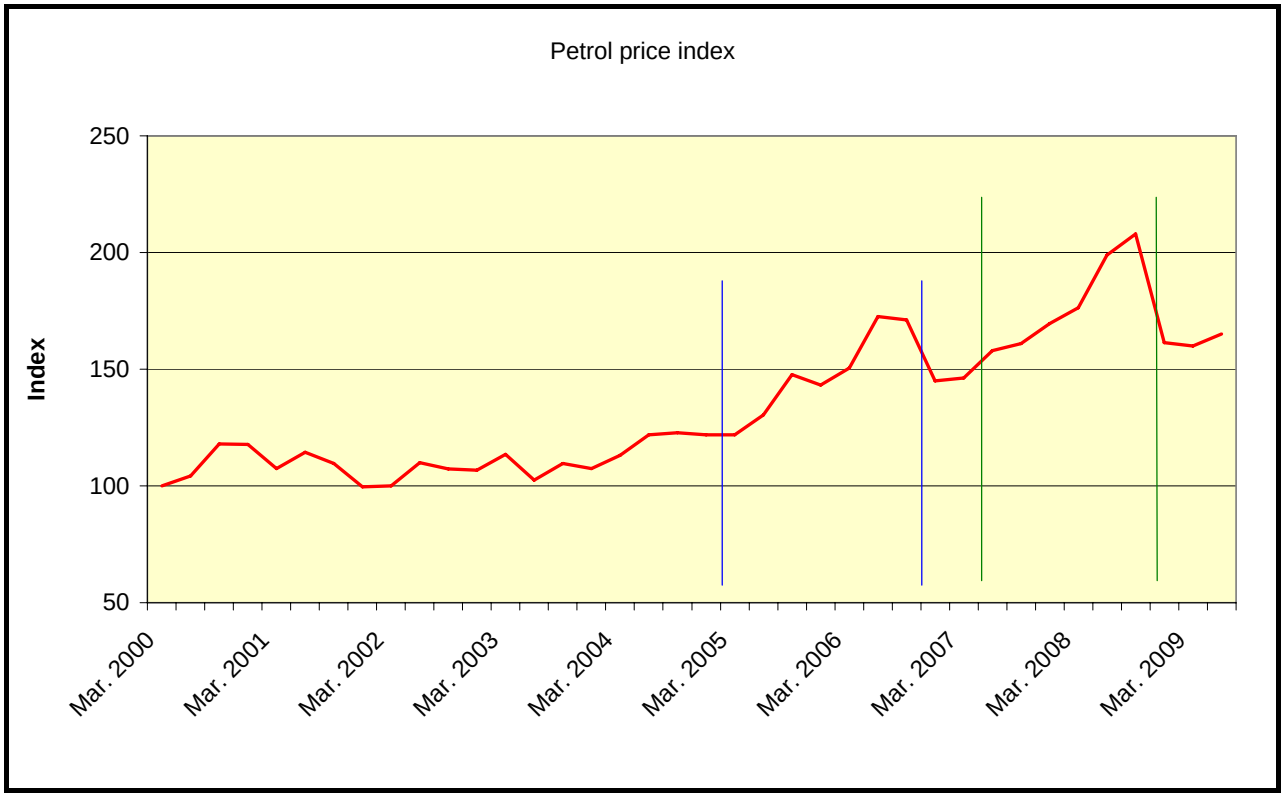



**Figure 8: Fuel price index (with March 2000=100)**

Fossil based energy resources are finite, non-renewable and in high demand. While the timing of a 'peak oil' scenario is still widely debated, we do know that fuel prices are likely to increase and become more volatile over time.

## 8.7 Car Ownership - Wairarapa

Car ownership in Wairarapa showed a steady increase between 1996 and 2006. Overall, Wairarapa showed a higher growth rate in "Car Ownership per household" and "Car Ownership per person" compared with Wellington region as a whole.

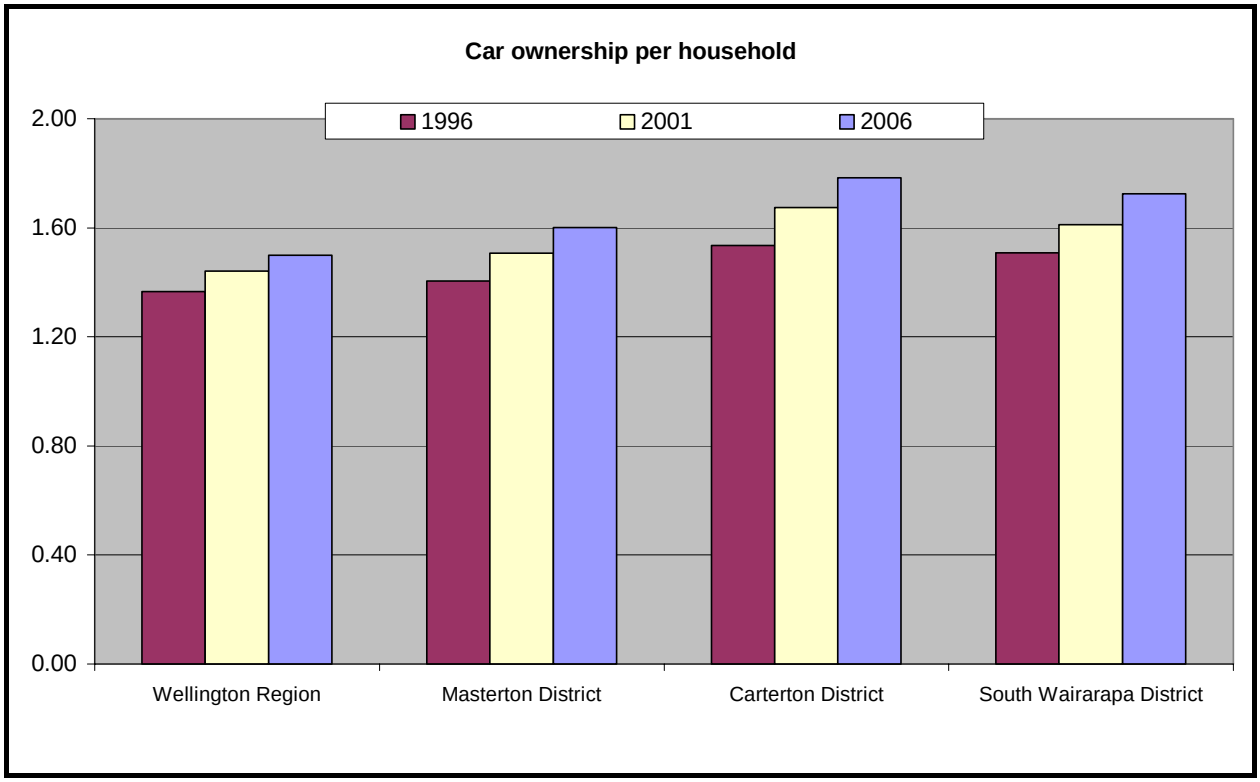



**Figure 9: Car Ownership per household between 1996 and 2006**

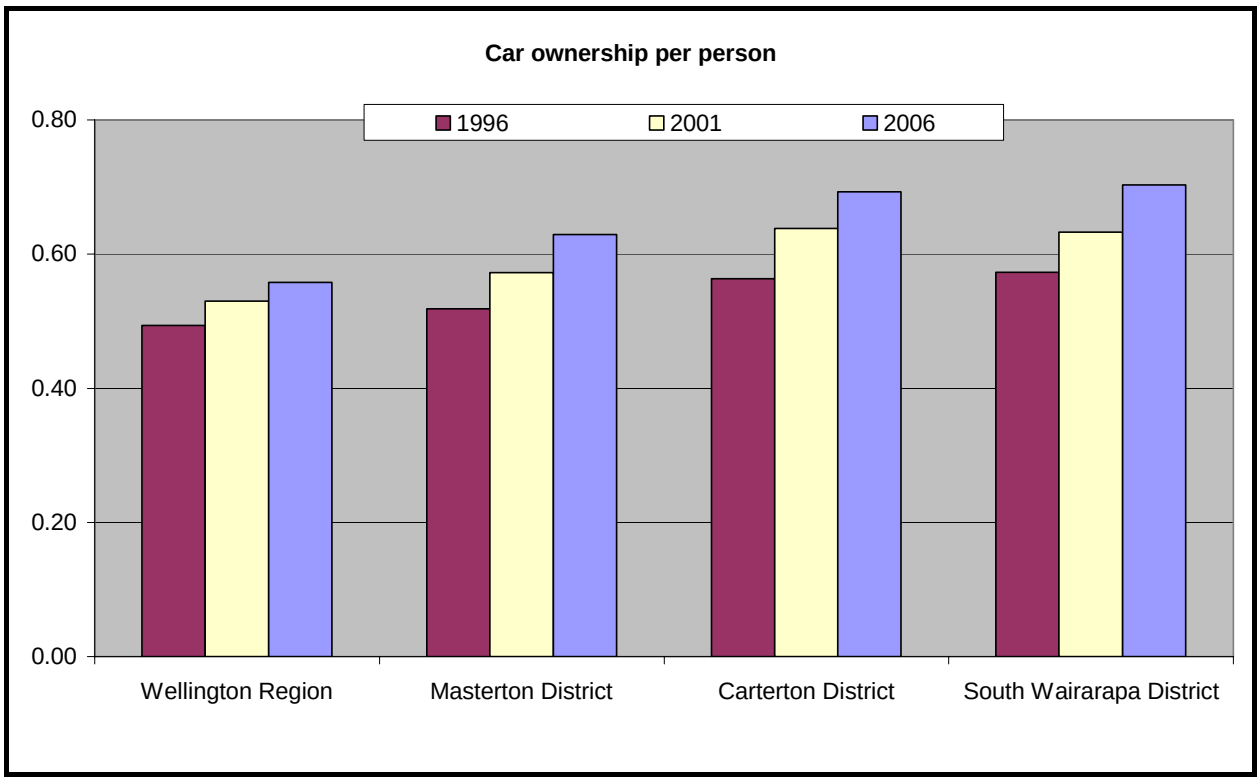



**Figure 10: Car Ownership per person between 1996 and 2006**

## 8.8 Working from home

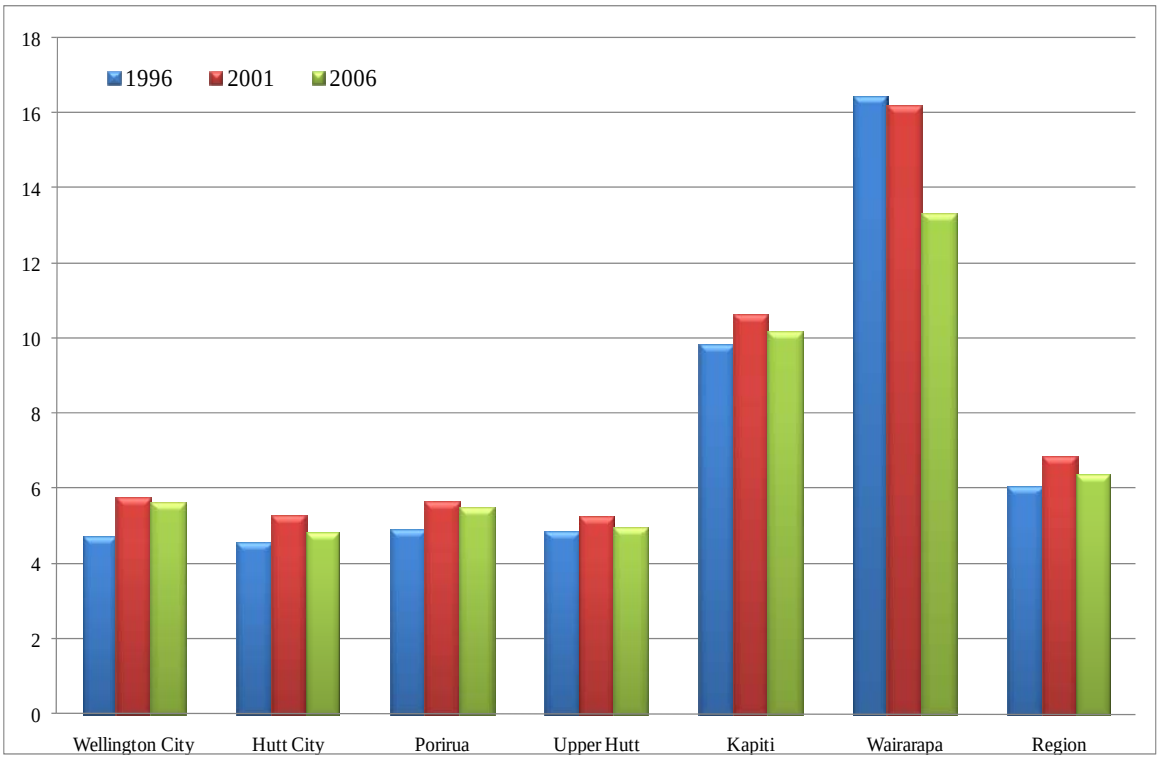



**Figure 11: Percentage of people working who work from home, by district. (Source: Statistics New Zealand)**

According to Statistics NZ's census data, Wairarapa has the highest proportion of people who work from home compared with other parts of the Wellington region. This may be due to the dominance of farming (agriculture, horticulture and viticulture) and café/accommodation type industries. However, whilst all other areas saw an increase between 1996 and 2001, and a small decrease by the following census year (2006), the Wairarapa saw a decrease across both periods, with a significant drop between 2001 and 2006. Access to high speed broadband, decline in farming, and increasing employment opportunities in other parts of the region (particularly Wellington City) over this time period could be key factors affecting further growth in work from home trends in Wairarapa.

## 8.9 Broadband access

Large parts of Wairarapa, like other rural areas in New Zealand, still have very slow and inefficient internet connections due to their distance from telephone exchanges. The Wellington Regional Strategy identifies broadband as a key enabler of economic growth. In addition to innovation and productivity benefits, high quality broadband infrastructure has social benefits and environmental benefits, including reducing the need to travel.

In September Minister Steven Joyce released the following statement about the government's targets for rural broadband:

## Govt announces targets for rural broadband

*Communications and IT Minister Steven Joyce has today announced coverage targets for the roll out of broadband to rural communities.*

*He says getting fast broadband to the 25% of New Zealanders living outside the footprint of the government's urban initiative is a priority.*

*"Around half of rural households are coping with dial up speeds currently and that's not good enough in the 21st century."*

*Mr Joyce says he expects the following to happen within six years:*

*- 93% of rural schools will receive fibre, enabling speeds of at least 100Mbps, with the remaining 7% to achieve speeds of at least 10Mbps.*

*- Over 80% of rural households will have access to broadband with speeds of at least 5Mbps, with the remainder to achieve speeds of at least 1Mbps.*

*"Providing fibre to the vast majority of rural schools will effectively deliver the capacity to provide faster broadband to the communities they serve. Fibre backhaul is currently the primary limiting factor in the delivery of rural broadband and getting fibre to schools will address that."*

*Mr Joyce said that the initial focus will be on those areas that will not benefit from Telecom's fibre-to-the-node upgrade programme.*

*Mr Joyce says he expects the rural policy to cost around $300 million.*

*"It is my expectation that this policy will be delivered through a mix of public and private funding.*

*"We are working with urgency to deliver higher speeds to rural areas. The last thing we want is to see a rural / urban digital divide develop in this country.*

*"Rural communities are an integral part of our economy and we cannot afford to let them fall behind. By putting a target of six years on this part of the roll out, we will in fact achieve fast broadband in rural areas ahead of achieving ultra fast broadband for most homes in urban areas, and that's appropriate."*

On 16 September Minister Steven Joyce confirmed the final details of what is now known as the Ultra-Fast Broadband Initiative and on 29 September a draft of the Rural Broadband Initiative.

The Rural Broadband Initiative concept is for broadband in rural areas to be significantly upgraded by pushing out fibre-optic connectivity to rural schools. In our region there are approximately 20 schools that would meet the definition of rural, with around a dozen in the Wairarapa. The proposal is therefore to focus on the Wairarapa area.

The Wairarapa schools are “strategically” located to serve their rural communities, several of which are very remote. A network that connected all these schools (and potentially, extensions to communities like Riversadale Beach) would indeed provide a skeleton network and a first stage of connectivity for significant portions of the Wairarapa rural community (approx 5,000 people in total).

Through the WRS Broadband Project, councils throughout the Wellington region have agreed the following priority work-streams to support delivery of both the Ultra- Fast Broadband and Rural Broadband Initiatives:

- Establish a stock-take of council policies on access to council assets (eg ducts, pipes, buildings), including charging regimes and legal agreements with a view to developing a region-wide policy
- To have an agreed position on region-wide rules for aerial deployment
- Develop region-wide rules for new trenching technologies
- Develop an online tool for businesses in the region to access up-to-date information on broadband speeds and costs.

# 9. Travel demand and trip patterns

## 9.1 Road traffic volumes on SH2 from north of Upper Hutt to north of Masterton

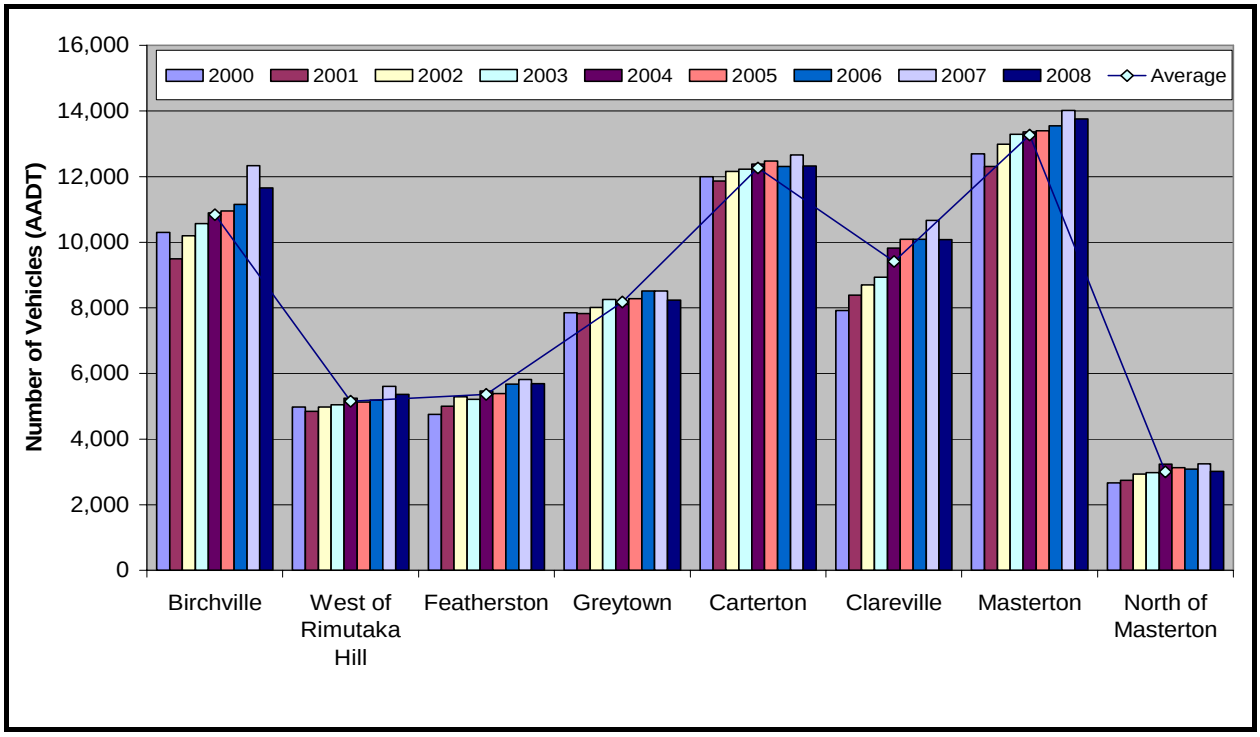



**Figure 12: AADT from Upper Hutt to North of Masterton (All vehicles)**

The above graph is based on the information from NZTA showing the Average Annual Daily Traffic (AADT) (two way total) between Upper Hutt and North of Masterton in the years between 2000 and 2008 was generally on the increase. Clareville had the highest percentage increase in AADT. Masterton had the highest number of AADT (14,000) in the region.

On a daily average, around 5,000 vehicles travel over Rimutaka Hill and about 3,000 vehicles travel "North of Masterton".

### 9.1.1 Capacity of SH2 from north of Upper Hutt to north of Masterton

AADT figures suggest that the traffic on State Highway 2 between Masterton and Clareville is well within the capacity that the road can handle. For reference, in GW's transport model (WTSM), State Highway 2 between Masterton and Clareville is assigned to handle 1,400 vehicles per hour per lane.

In terms of State Highway 2 Rimutaka Hill Road, a recent NZTA study[3] noted that the route is forecast to meet/exceed 10,000 AADT around 2046 depending on factors such as demographics, fuel prices and growth rate. It also notes that the perception of acceptable congestion or when a route reaches capacity may change considerably between 2008 and 2046.

[3] SH Plan from Featherston to Upper Hutt, October 2008. Prepared by Duffill Watts & Tse Ltd for the NZ Transport Agency.

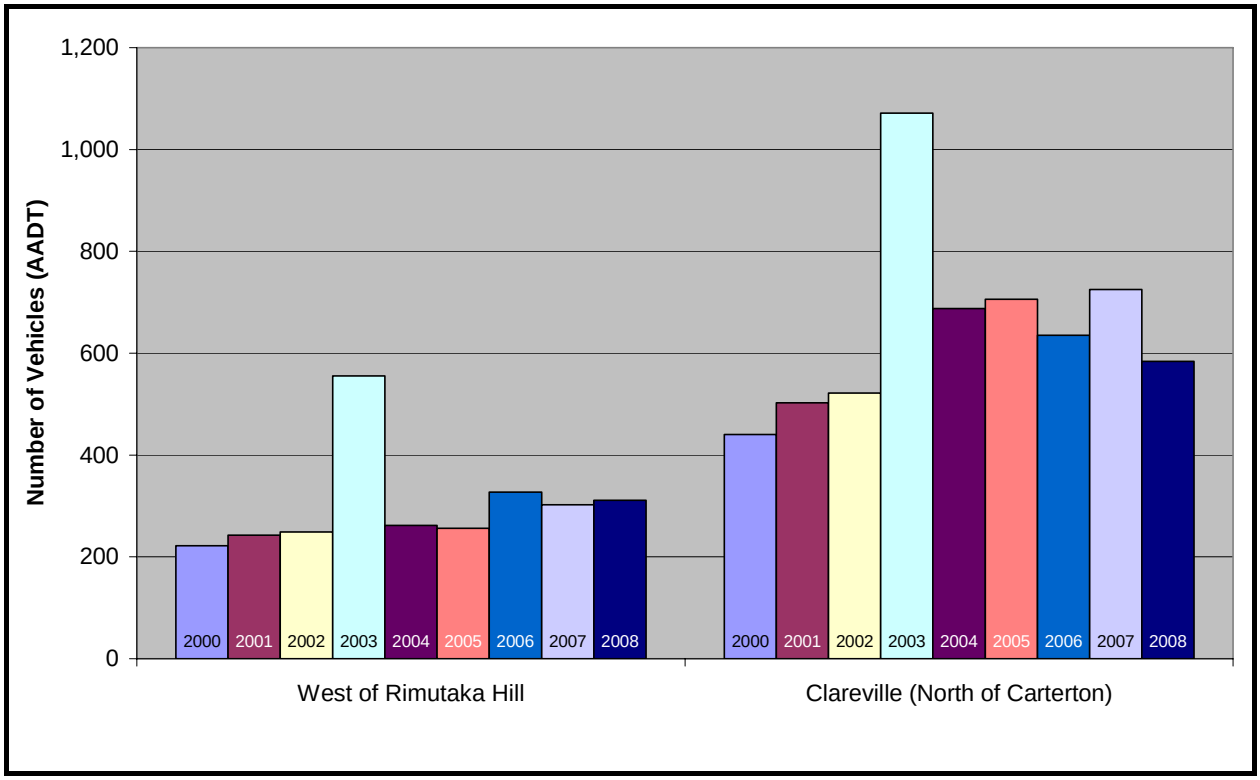



**Figure 13: AADT of Heavy Commercial Vehicles at two locations – near Featherston and Carterton**

The traffic volumes of Heavy Commercial Vehicles (HCV) forms part of AADT data for State Highway 2. The above figure shows the trend of AADT of HCV passing through two locations at SH2 between years 2000 and 2008.

Generally, the number of HCV across these two locations is generally on the increase. We believe that the data of 2003 is potentially inaccurate and should probably be disregarded as a result. Of note is a significant drop in HCV volumes at Clareville between 2007 and 2008, possibly related to the current economic recession.

## 9.2 Road traffic volumes on SH53 between Featherston and Martinborough

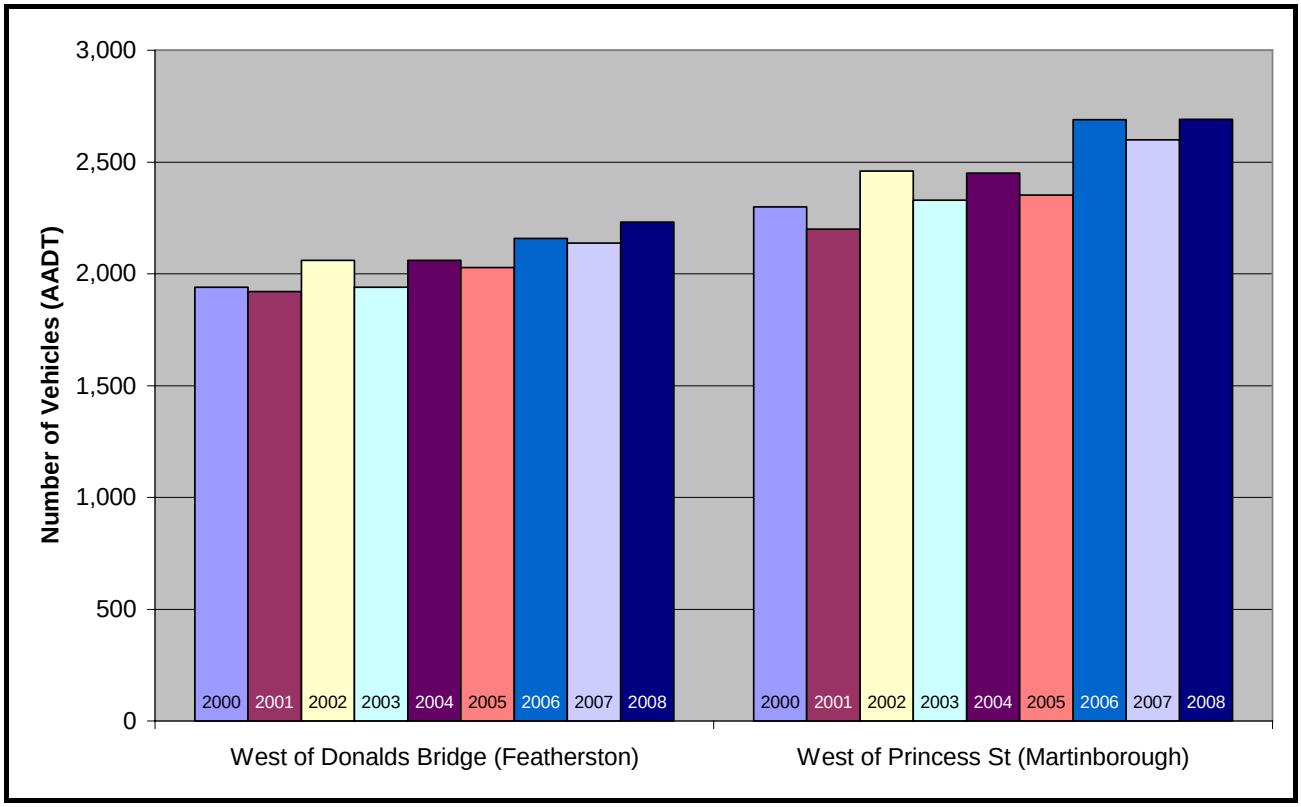



**Figure 14: AADT (all traffic) at two locations on SH53**

Based on information from NZTA, the AADT along SH53 between 2000 and 2008 was quite stable overall, showing a slightly increasing trend. When comparing the figures between 2000 and 2008, Featherston showed a 15% increase; and Martinborough has a 17% increase.

# 10. Public Transport Trends

Overall, both bus and rail patronage in Wairarapa has increased positively over the past few years, possibly responding to improvements to bus services and the new rail carriages.

## 10.1 Wairarapa railway line (WRL) Patronage

Patronage information between Upper Hutt and Wairarapa specifically is not available. The figure below shows annual patronage information of WRL services between Wellington and Wairarapa.

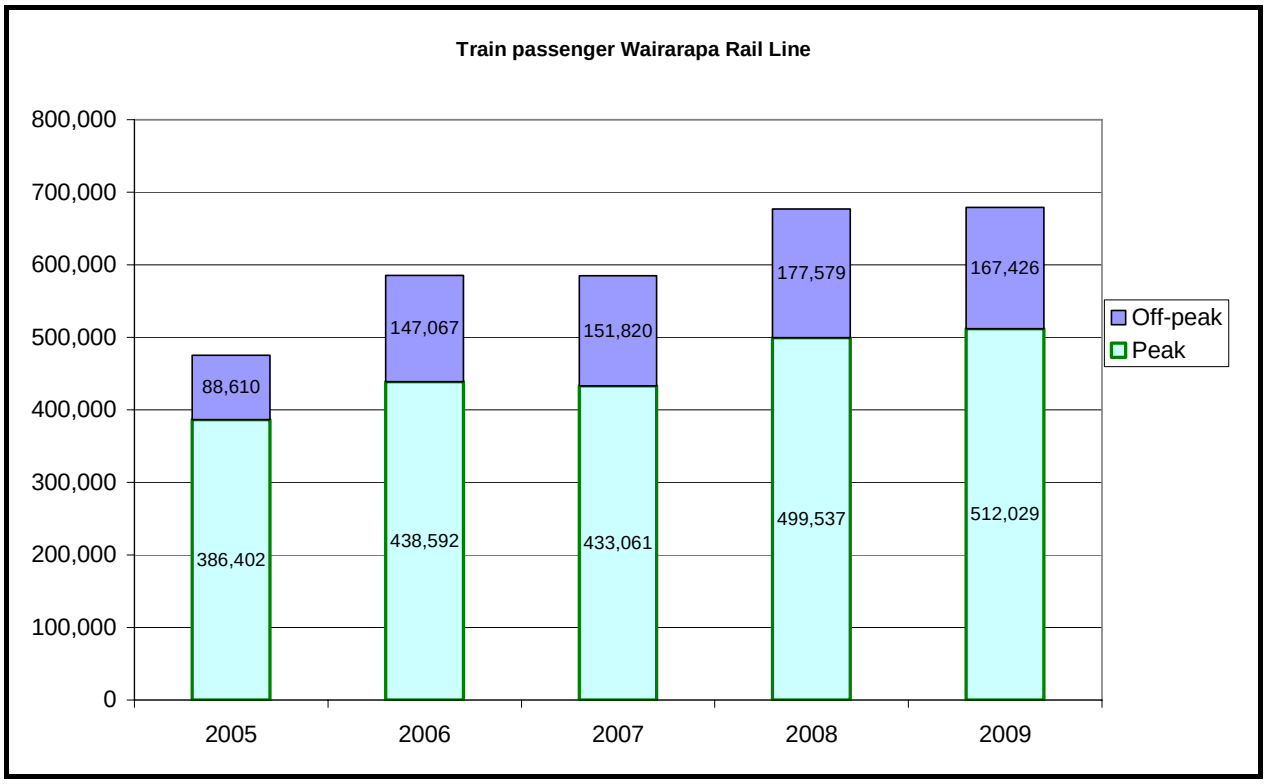



**Figure 15: Annual rail patronage on Wairarapa rail line services between 2005 and 2009**

The rail patronage information on the WRL line is only available from May 2005. For the purpose of year-to-year comparison, information between January and April 2005 was estimated. The annual patronage information is not yet available for 2009 and therefore figures between July and December 2009 are estimated.The general trend shows that patronage has been steadily increasing. There was a notable increase between 2005 and 2006, and between 2007 and 2008.

**Increased rail patronage between 2005 and 2006 -** there was a 13.5% increase during peak hours; and a 66% increase during off-peaks.

**Possible reasons:**

- During the same period of time, the petrol price had increased 40% from March 2005 (index=122) to September 2006 (index=171) (refer to section 8.6).
- Due to relatively low income of residents in Wairarapa (see section 8.4), it is possible that the sharp rise in petrol price would have a greater impact on them than people in other part of Wellington Region.

- Long travel distances for Wairarapa residents who commute outside the region mean that fuel price rises are likely to have an impact on household travel costs.

**Increased rail patronage between 2007 and 2008 -** there was a 15.4% increase in Wairarapa line rail patronage during peak hours; and 17% increase during off-peak hours.

**Possible reasons:**

- Improved bus services (July 2007) – included an increase in bus connections services to train stations.
- Petrol price increases (2007 and 2008) - the petrol price increased by 42% from March 2007 (index=146) to September 2008 (index=208).
- New Wairarapa trains (Oct 2007) - the new Wairarapa trains were fully operational in Oct 2007. This provided not only a more comfortable trip, but also more seated capacity. The seated capacity during peak hours had increased 13.7% from 814 to 926. There has been no significant change in train frequency since 2002.

## 10.2 WRL Capacity

In March 2009, Greater Wellington's public transport division conducted a Wairarapa train monitor survey (see tables 4 and 5 below).

The results showed that the demand for Wairarapa services are in most cases being comfortably accommodated. The exception is the train service departing Wellington station at 4:33pm which was close to capacity. This service had 480 passengers by Upper Hutt which exceeded the seated capacity (394) but was just under the full capacity (plus 140 standing capacity = 534). 73 people had to stand 23 minutes from Upper Hutt to Featherston. 13 passengers had to stand 44 minutes from Petone to Featherston. It is understood that the seated capacity for this service can be addressed in the short term by additional carriages and KiwiRail are in the process of doing this.

In contrast, the service departing Wellington station at 6:18pm was only about 34% full. There are some simple ways to address the higher demand on some services through re-allocation of carriages and there are also opportunities to spread the demand onto other services through flexible work hour policies.

| | | Masterton to Wellington rail services | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5:45am | | | 6:25am | | | 6:50am | | |
| | | Pax | Seated Capacity | % | Pax | Seated Capacity | % | Pax | Seated Capacity | % |
| Wairarapa line stops | Masterton | 43 | 266 | 16% | 50 | 394 | 13% | 38 | 266 | 14% |
| | Carterton | 120 | 266 | 45% | 98 | 394 | 25% | 103 | 266 | 39% |
| | Featherston | 248 | 266 | 93% | 302 | 394 | 77% | 218 | 266 | 82% |
| | Upper Hutt | 275 | 266 | 103% | 353 | 394 | 90% | 222 | 266 | 83% |
| | Petone | 240 | 266 | 90% | 309 | 394 | 78% | 186 | 266 | 70% |
| | Wellington | | 266 | | | 394 | | | 266 | |

**Table 4: Surveyed result from Masterton to Wellington**

| | | Wellington to Masterton rail services | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:33pm | | | 5:33pm | | | 6:18pm | | |
| | | Pax | Seated Capacity | % | Pax | Seated Capacity | % | Pax | Seated Capacity | % |
| Wairarapa Corridor | Wellington | 369 | 394 | 94% | 260 | 266 | 98% | 77 | 266 | 29% |
| | Petone | 407 | 394 | 103% | 269 | 266 | 101% | 80 | 266 | 30% |
| | Upper Hutt | 480 | 394 | 122% | 274 | 266 | 103% | 91 | 266 | 34% |
| | Featherston | 342 | 394 | 87% | 154 | 266 | 58% | 64 | 266 | 24% |
| | Carterton | 128 | 394 | 32% | 61 | 266 | 23% | 35 | 266 | 13% |
| | Masterton | | 394 | | | 266 | | | 266 | |

**Table 5: Surveyed result from Wellington to Masterton**

### 10.3 WRL Reliability

There have been some issues with poor reliability of Wairarapa rail services recently, with services being significantly delayed or even cancelled. The key underlying issues for this poor reliability is the old age of the locomotives within KiwiRail's fleet, making them prone to breakdown. KiwiRail currently has new locomotives on order, which we hope will mean some of the more reliable locos being used to pull the new Wairarapa carriages in future.

### 10.4 WRL Park and Ride capacity

Featherston station had reached capacity but has just had 30 new spaces added. Carterton station is often full, but there is plenty of on-street parking available nearby so capacity is not currently an issue. Masterton and Solway stations are nearing capacity and there may be need for expansion in future.

There is some opportunity for expansion around most of the Wairarapa park and ride sites. Some are easier and more affordable than others. Like other park and ride areas throughout the region, there is likely to be a need to find additional spaces in future.

## 11. Span of public transport services

Community feedback in the past has raised issues about public transport access with the rest of the region, particularly off peak and at weekends. While the current rail frequency during peak periods has improved, there are still very few off-peak or weekend services. This makes it difficult for Wairarapa residents to travel to the Hutt Valley and Wellington for off peak appointments, shopping, evening socialising etc, and make public transport a fairly inflexible option for people travelling to Wairarapa at weekends for recreation and tourism purposes.

The potential for a shuttle service, either bus or rail to Upper Hutt has been raised, so that Wairarapa residents can access to a wider range of shops/facilities and connect with more frequent public transport services to the Hutt Valley and Wellington City.

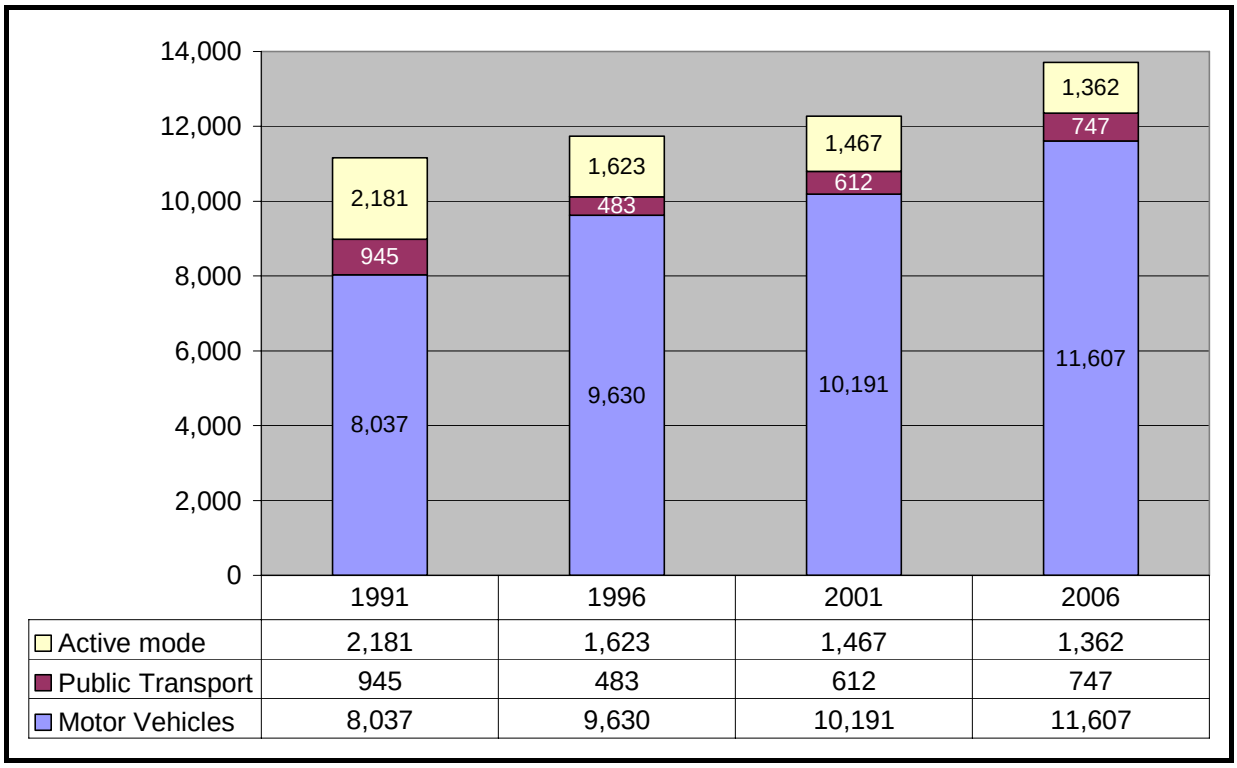
The need for a public transport connection from Wairarapa to Palmerston North has also been raised through previous public feedback.

# 12. Journey to work patterns

## 12.1 Trip numbers

Between 1991 and 2006, total JTW trips in Wairarapa increased from around 11,000 to around 14,000.

The use of cars for JTW increased notably over this period, while the use of active modes (walking and cycling) for JTW has gradually decreased. The use of public transport for JTW drastically decreased in 1996, bounced back in 2001, but it was still lower than 1991 (945 trips).




| | 1991 | 1996 | 2001 | 2006 |
|---|---|---|---|---|
| Active mode | 2,181 | 1,623 | 1,467 | 1,362 |
| Public Transport | 945 | 483 | 612 | 747 |
| Motor Vehicles | 8,037 | 9,630 | 10,191 | 11,607 |

**Figure 17: Wairarapa JTW trips between 1991 and 2006 (Source: NZ Statistic, Census data)**

According to 2006 Census data, the proportion of the population between age 20 and 64 was 55.8% in Wairarapa compared with 58.7% for New Zealand. Assuming the population in this age group is more likely to be the working population, travel demand during peak hours might be relatively lower than other areas as a result.

## 12.2 Journey to work mode split in 2006

In 2006, the dominant mode for JTW in Wairarapa was by motor vehicle (85%). This compares with 70% mode share for the motor vehicle in the Wellington region as a whole.

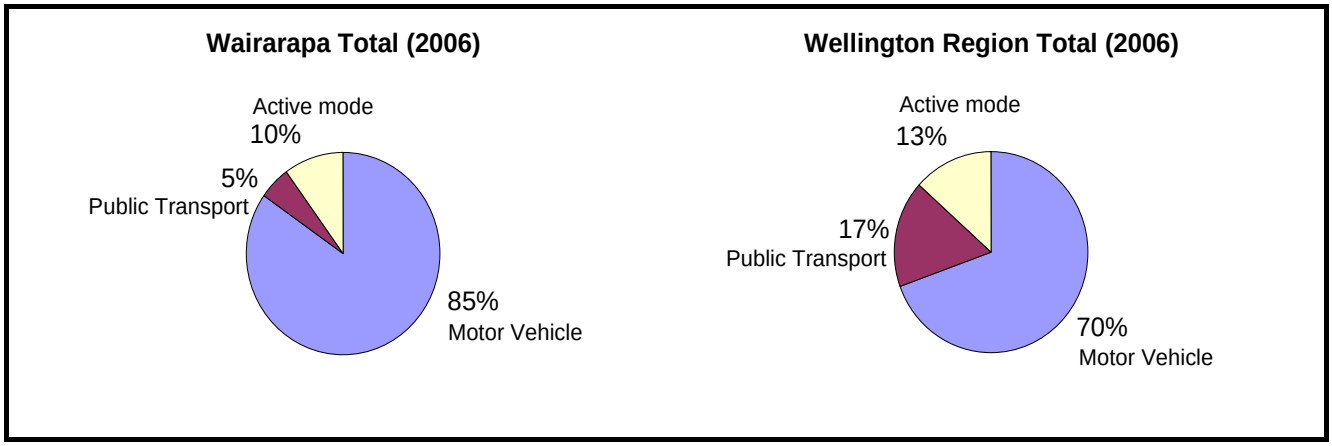



**Figure 18: Mode split for JTW trips in 2006 - Wairarapa and Wellington region** *(Source: NZ Statistic, Census data)*

## 12.3 Destination of JTW trips

Journey to work (JTW) data from the 2006 census shows that about 91% of JTW trips made by Wairarapa residents were within Wairarapa.

This percentage slightly decreased between 1996 and 2006. This is consistent with a similar small decrease in residents living and working within their local area in other parts of the region.

| | JTW trips within Wairarapa | % | JTW trips outside Wairarapa | % |
|---|---|---|---|---|
| **1996** | 12453 | 93.6% | 855 | 6.4% |
| **2001** | 12801 | 91.1% | 1,257 | 8.9% |
| **2006** | 13311 | 90.9% | 1,338 | 9.1% |

**Table 6: Destination of journey to work trips from Wairarapa**

Of the 9% who travel to work outside Wairarapa, the predominant destinations are Wellington City CBD (4.6%), Lower Hutt (2.1%), non CBD parts of Wellington City (1.2%), and Upper Hutt (0.9%). Very few journeys to work trips from Wairarapa are to a destination in Porirua/Pukerua Bay and Kapiti.

## 13. Walking and cycling trends

In 2006, Masterton had the highest percentage in the region of journeys to work made by cycling at 3.7%. While Wellington City had by far the largest proportion of people walking to work, the three Wairarapa areas had a higher proportion of trips made by walking than the other districts in the region.

| Territorial Authority | Cycled | % | Walked / Jogged | % | Total number of trips by all modes |
|---|---|---|---|---|---|
| Kapiti | 273 | 1.7% | 690 | 4.5% | 15,222 |
| Porirua | 114 | 0.6% | 636 | 3.6% | 17,610 |
| Upper Hutt | 282 | 1.8% | 759 | 4.9% | 15,612 |
| Lower Hutt | 627 | 1.6% | 1,908 | 4.8% | 39,702 |
| Wellington City | 2,160 | 2.6% | 15,696 | **18.8%** | 83,643 |
| Masterton | 303 | **3.7%** | 567 | 6.9% | 8,205 |
| Carterton | 48 | 1.9% | 144 | 5.7% | 2,547 |
| South Wairarapa | 54 | 1.8% | 246 | 8% | 3,057 |
| Wellington Region | 3,861 | 2% | 20,646 | 11% | 186,000 |

**Table 7: 2006 Journey to work mode share for walking and cycling by territorial authority.**

A transport perceptions study asked respondents about how safe they felt it was to walk and cycle in the Wellington region. A breakdown of the results by territorial authority is shown in the figures below.

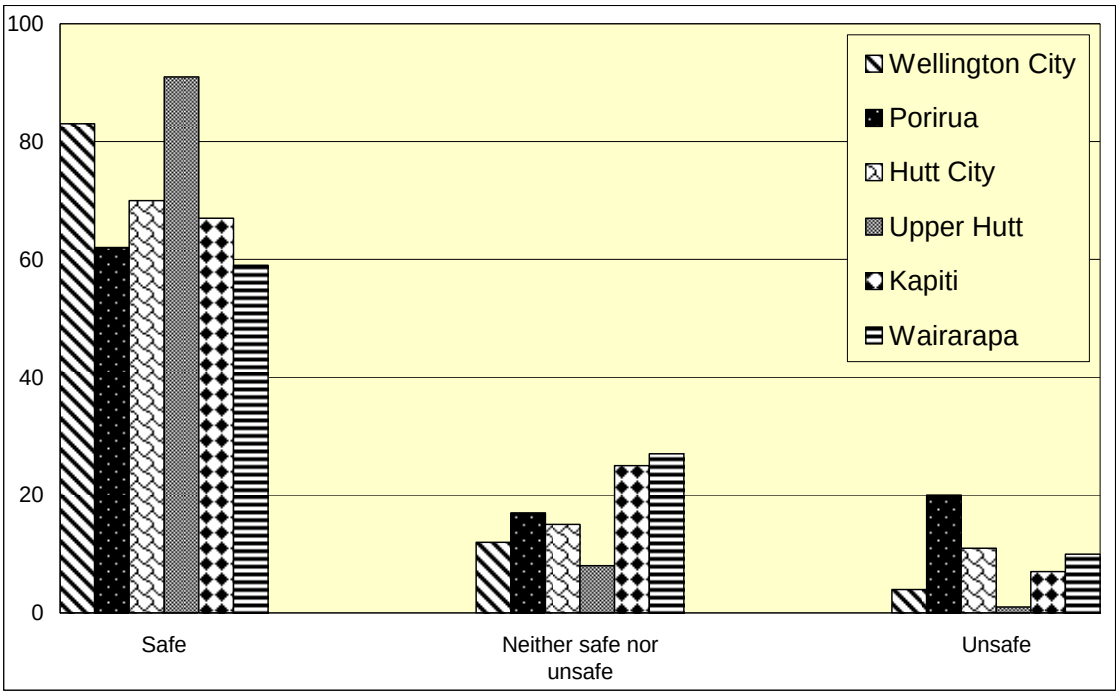



**Figure 19: How safe do you think people are when walking? (%) - By TA. Source: Transport perception survey 2006.**

Respondents were most likely to say they felt people were safe when walking in Upper Hutt and Wellington City, and unsafe in Porirua. Wairarapa residents were the most common respondents to sit on the fence in relation to walking.

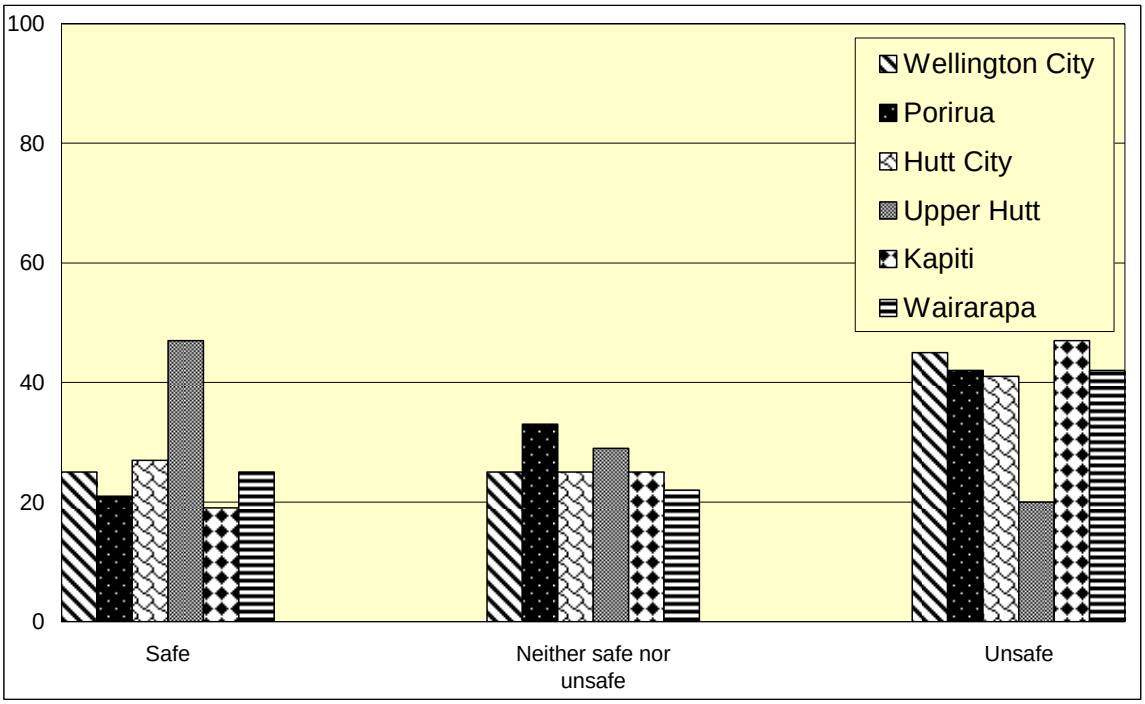



**Figure 20: How safe do you think people are when cycling? (%) – By TA. Source: Transport perceptions survey 2006.**

Like respondents in all districts other than Upper Hutt, Wairarapa residents were more likely to say they felt unsafe while cycling than safe.

# 14. Freight

## 14.1 National freight demands study – September 2008

The Ministry of Transport released a National Freight Demands Study in September 2008. The government recognises the importance of the freight sector and the desire to improve its efficiency and achieve significant changes in modal shares. This study was therefore commissioned by the Ministry of Transport (MoT), the Ministry of Economic Development (MED) and Land Transport New Zealand (now the NZ Transport Agency) to look at the current operations of the sector and its future development. The study was undertaken to overcome the limited amount of data on the sector and provide a sound basis for future policies.

The study notes that the freight sector is a significant consumer of energy resources, accounting for about 43 percent of the energy consumed by the transport sector and a similar proportion of greenhouse gas emissions. As shown in the diagram below, activity in the sector is dominated by the movement of goods by road, although when the length of haul is taken into account the role of rail and coastal shipping is enhanced with these having a higher share of longer distance movements.

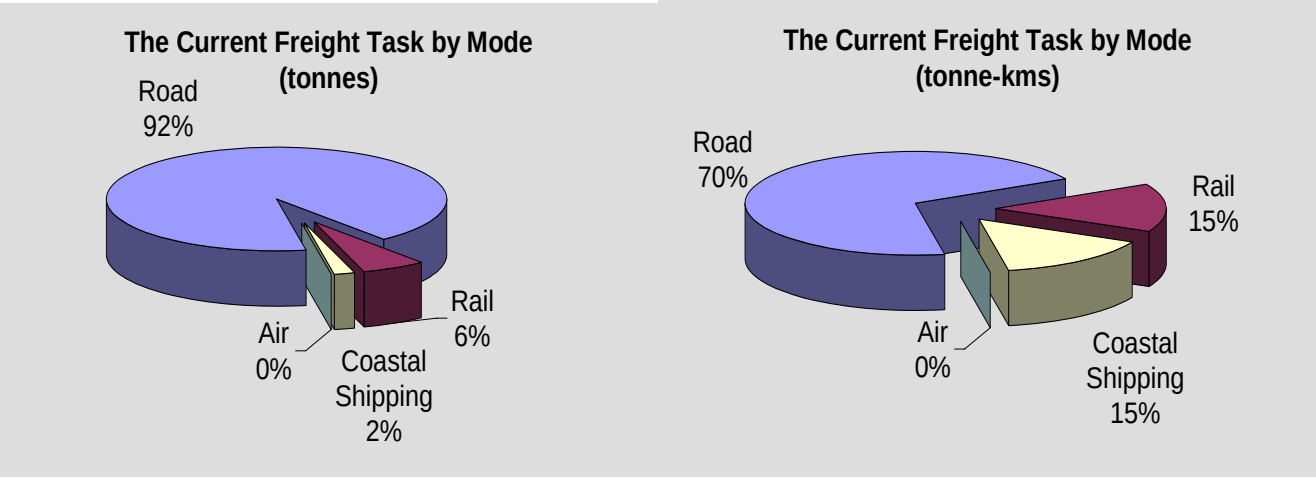



**Figure 21: The current freight task. Source: National Freight Demands Study, 2008.**

Total movements in terms of tonnages are dominated by aggregates, logs and wood products and by dairy products, which combined are estimated to account for about 60 percent of the total movements identified. The mode share for freighting logs and wood chips is currently 94% by road and 6% by rail.

### 14.1.1 Forecast growth in total freight movements

Over the period from 2006/07 to 2031 the freight task for the commodities identified is expected to increase by about 70-75 percent (100% in Wellington region) in terms of tonnes lifted and in terms of tonne-kms transported. This figure of growth to 2031 can be compared with alternative estimates of growth in tonne-kms of about 70 percent between 2005 and 2020 based on work undertaken by Transport Engineering Research New Zealand (TERNZ) and forecasts of growth of up to 100 percent by 2040 based on work undertaken internally by the MOT, and lies broadly between the two.

## 14.2 Key national freight and tourism routes identification

NZTA and the MoT are currently carrying out a review to identify key national freight and tourism routes. This is expected to feed into a National Freight Plan due to be released in December 2009. It is expected to consider road, rail and coastal freight movements to the extent that each of these 'modes' is likely to affect the investment decisions that NZTA will make.

## 14.3 Road freight issues – Wairarapa corridor

A meeting with several members of the Central Area Road Transport Association (CARTA) was held during development of this paper. The key issues raised were the need for improvements on the Rimutaka Hill Road – particularly better ‘daylighting’ and visibility around corners – and need for some downhill passing or ‘slow vehicle’ lanes. They noted that the work underway to improve Muldoon’s Corner was a good start.

The need to look at reduced speed limits and/or intersection improvements in the vicinity of State Highway 2/Norfolk Road (south of Masterton, near Waingawa) was also identified. This intersection is subject to high number of heavy vehicle movements and the ability for trucks to safely move in and out of the highway corridor will only get worse with the projected increases in freight movement and forestry.

CARTA representatives were not aware of any need for new stock effluent facilities in Wairarapa, but noted that investigations are underway for a new facility near Woodville.

The issue of bypasses (heavy vehicle or other) of Wairarapa towns along SH2 was discussed, but no short term or immediate need was identified.

## 14.4 Log freight in Wairarapa

According to Statistics NZ, the Wellington region had 4% of New Zealand's total areas forested in exotic tree plantations intended for harvest in 2006 (around 32,000 hectares). Total log production is expected to grow by 270% in the Wellington region between 2006 and 2031[4]. This will have a significant impact on log freight traffic.

The wood flow forecasts prepared by MAF indicate that the availability of radiata pine from the total Southern North Island forest estate will increase slightly over the next few years, and after 2015 increases in wood availability across the region are expected to result in significant increased log supply.

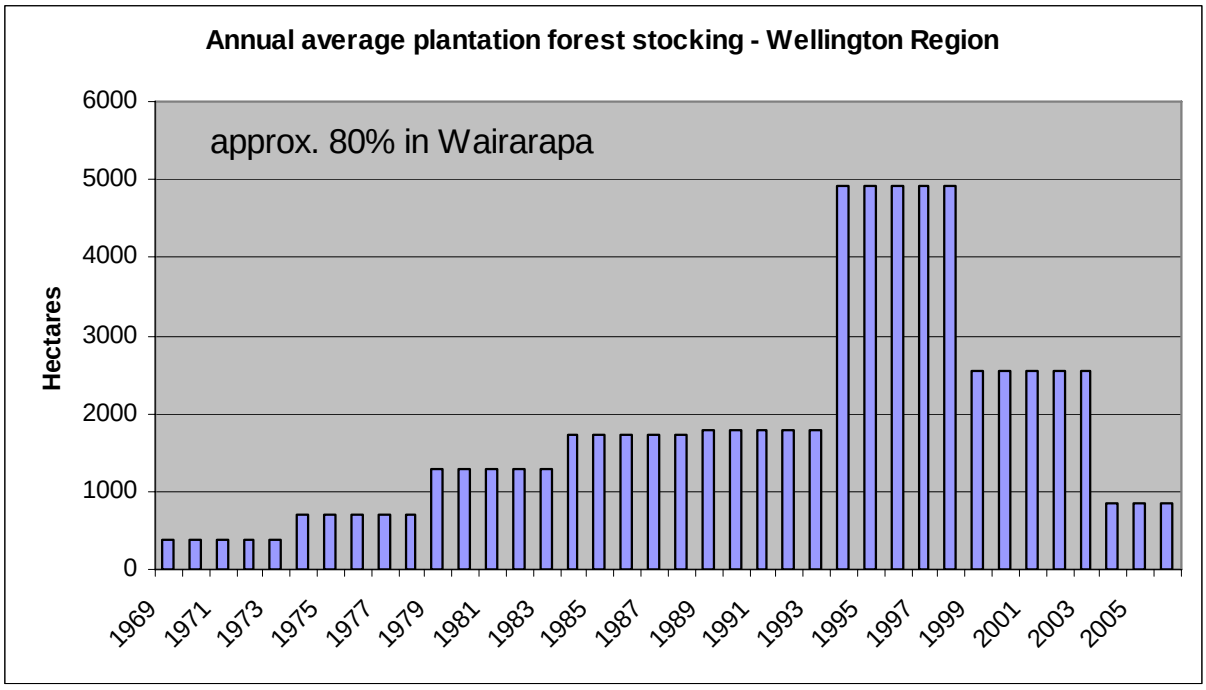



**Figure 22: Plantation forest stocking in Wellington Region. Source: MAF Exotic forest description.**

Most of the potential increase in wood availability from 2015 on will come from the region's small-scale forest growers who established forests during the 1990s. The actual timing of the harvest from these forests will depend on market conditions and the decisions of a large number of small-scale owners.

Market conditions and logistical constraints (availability of logging crews, transport capacity, and wood processing capacity) will limit how quickly the additional wood availability from small-scale owners' forests can be harvested leading up to 2020.

[4] *Wood Availability Forecasts* for the major wood-producing regions, produced by MAF.

Some owners will be motivated to harvest early while others may decide to grow their forests for longer. It is therefore likely that the harvesting of the post-1990 forest plantings will be spread out over a longer period than might otherwise be the case. Greater harvesting during this period could have the effect of dampening log prices. On the other hand, if international log prices increased during this period of increasing wood availability, then harvesting rates would rise more quickly to meet international demand.

Source: *Southern North Island Wood Availability Forecasts for the period 2008 – 2040* from MAF website: **http://www.maf.govt.nz/mafnet/publications/wood-availability/southern-north-island**

## 15. Road safety

**NOTE: A colour version of this map will be tabled at the RTC meeting.**

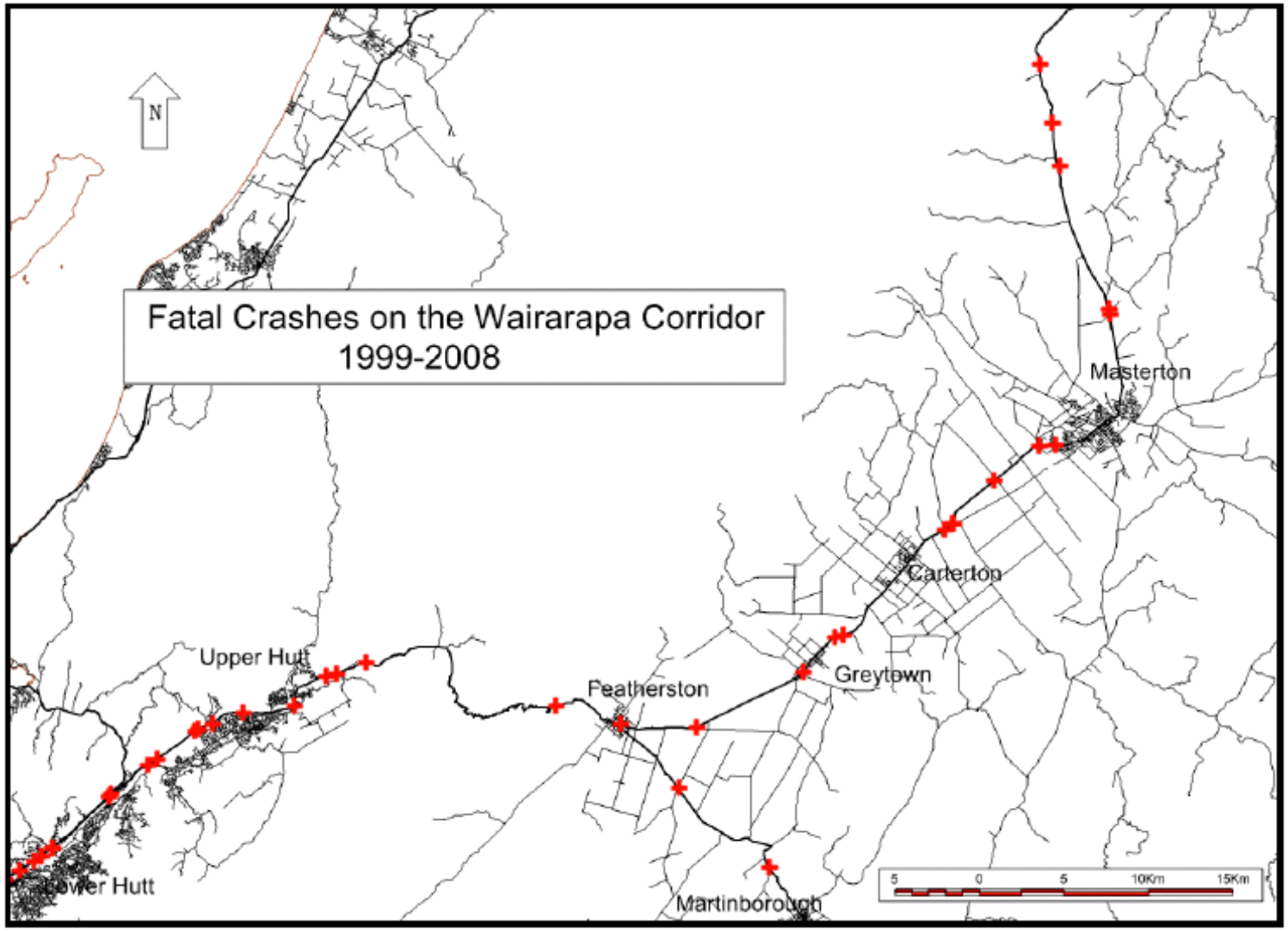



**Figure 23: State Highway 2 and State Highway 53 - Fatal crashes 1999 – 2008.**

**NOTE: A colour version of this map will be tabled at the RTC meeting.**

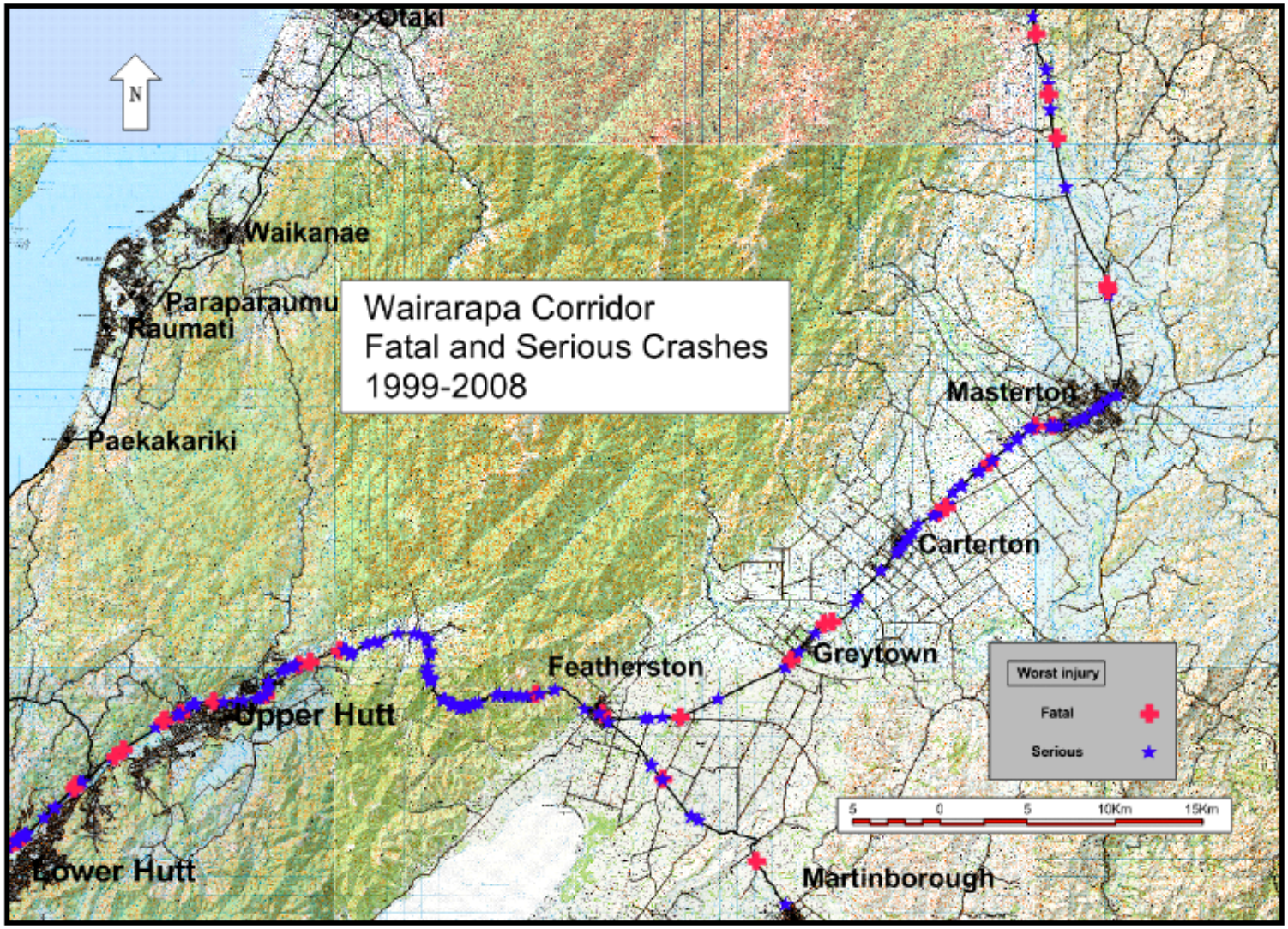



**Figure 24: State Highway 2 and State Highway 53 - Fatal and serious crashes 1999 – 2008.**

## 15.1 Total road crash statistics - Wairarapa

The following graphs show the trend in road crashes that have resulted in casualties over the past ten years for the three Wairarapa districts and compare these with the regional average. Casualties are shown per 1000 population.

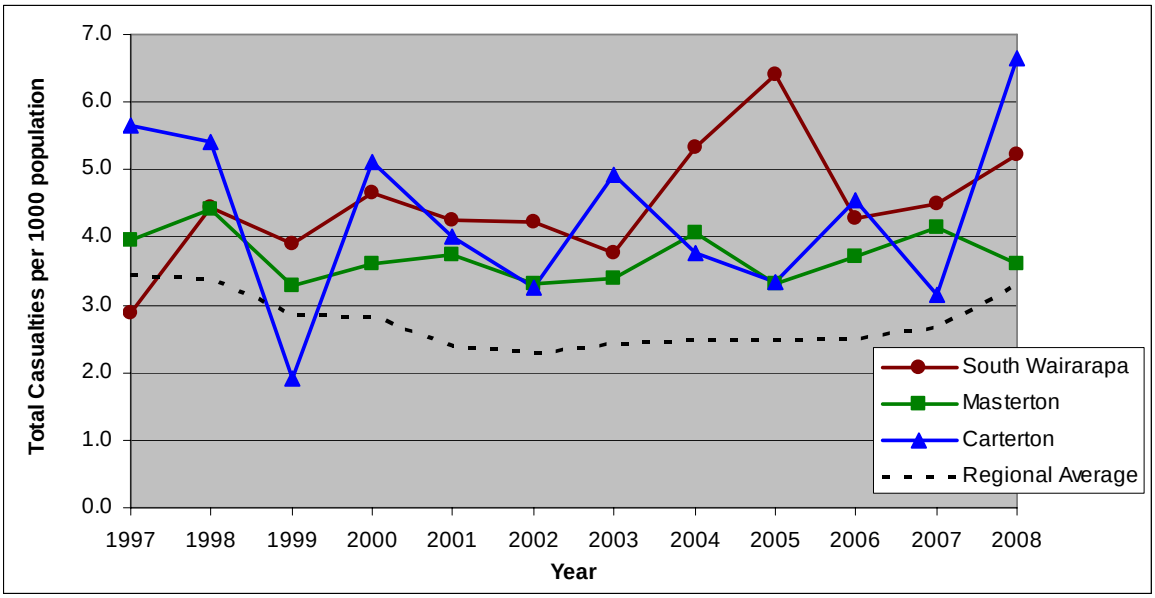



**Figure 25: Total Casualties – Wairarapa districts and regional average**

The high number of total casualties for all three Wairarapa areas compared to the regional average may reflect the fact that these relatively small communities have State Highway 2 running through them with its associated traffic speeds and volumes.

The graph below shows the crashes per 100 million vehicle kilometres travelled (VKT).

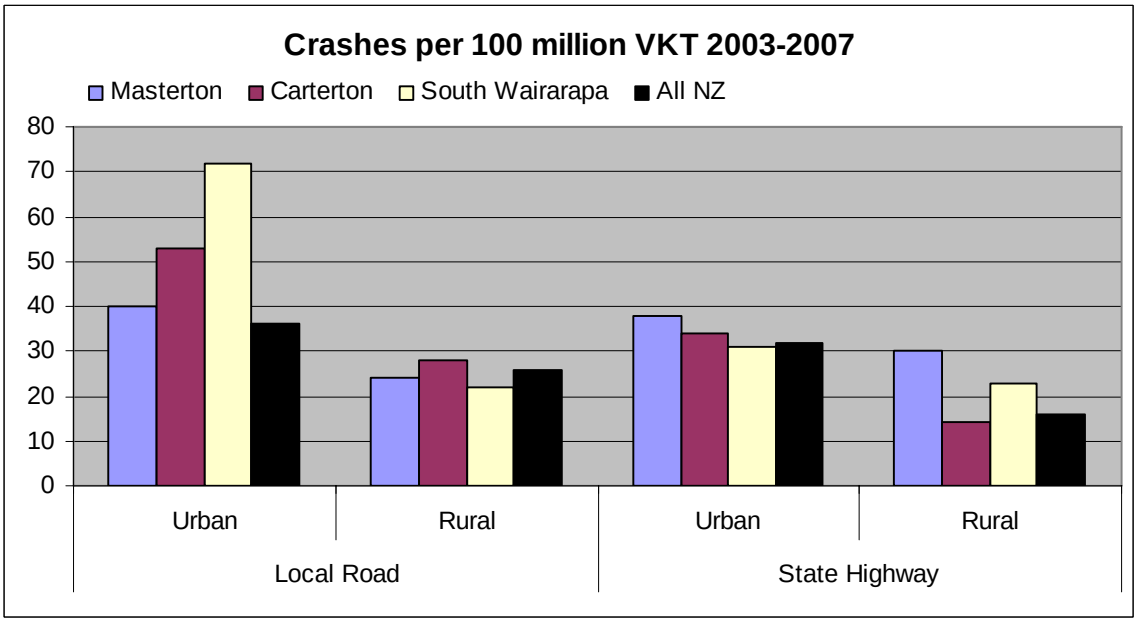



**Figure 26: Total crashes per 100 million vehicle kilometres travelled by road type and TA area**

Crashes per VKT on urban local roads are higher than the NZ average in all three Wairarapa areas. Crashes on urban state highways are also over represented in Masterton and South Wairarapa.

## 15.2 Crash trends by road type

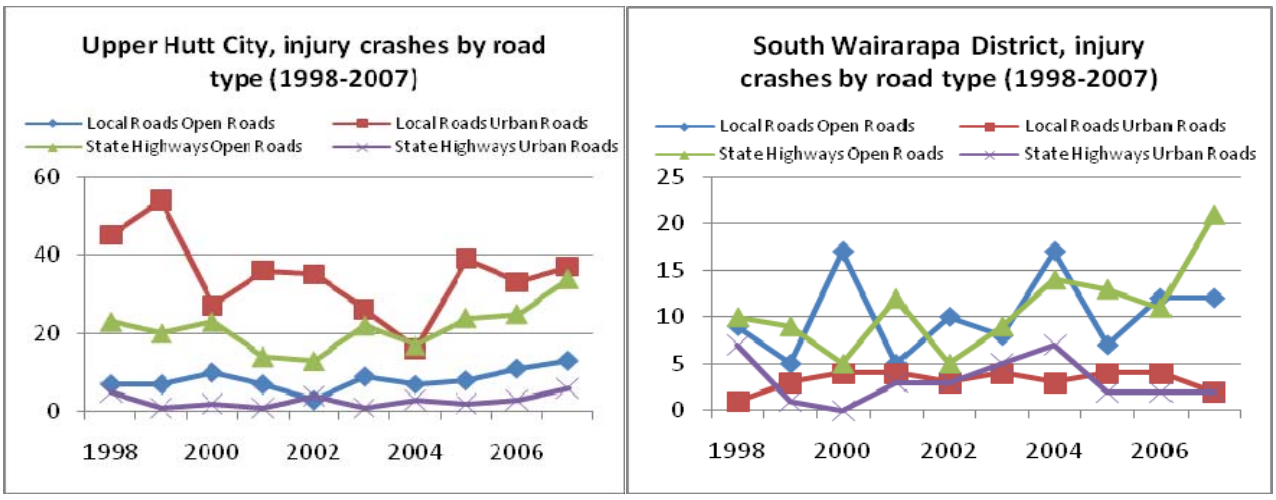



**Figure 27 and 28: Injury crash numbers by road type for Upper Hutt City and South Wairarpa District between 1998 and 2007**

Upper Hutt City shows a strong rise in the injury crash numbers for open state highways which in 2007 are almost as high as the numbers for local urban roads where most injury crashes happen. South Wairarapa shows an increase of crashes on open state highways, which in 2007 account for the main injury crash sites.

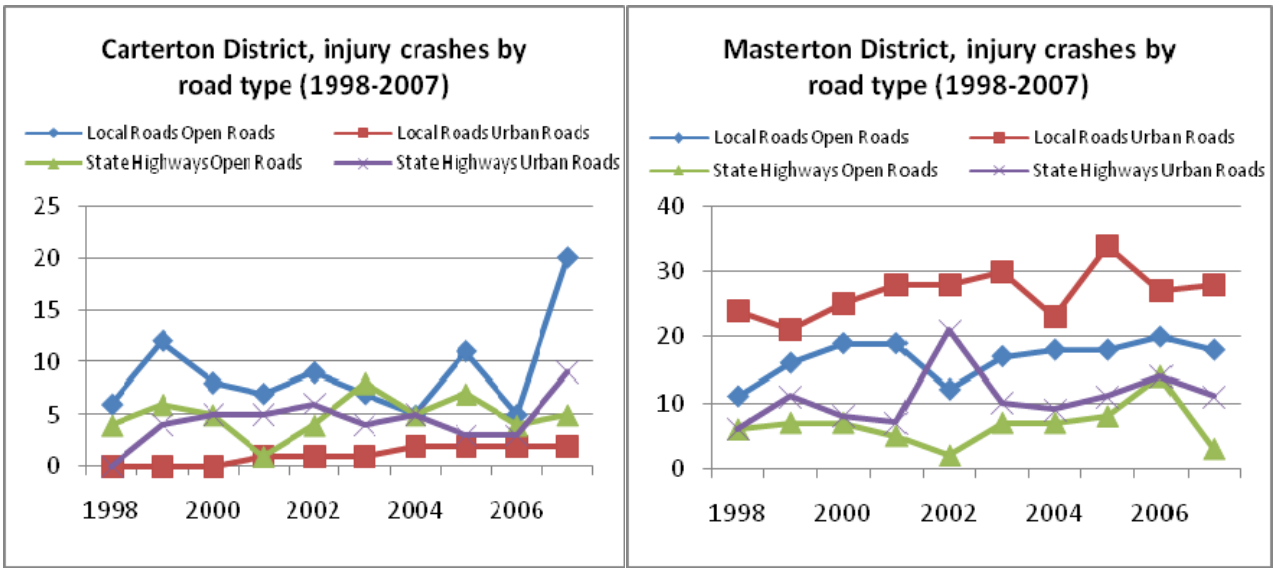



**Figure 29 and 30: Injury crash numbers by road type for Carterton and Masterton District between 1998 and 2007**

Like South Wairarapa, Carterton District shows a relatively small numbers of injury crashes, but with a significant increase on local open roads in 2007. Masterton shows an overall decreasing trend in injury crashes on all road types except for local urban roads.

## 15.3 Vulnerable road users

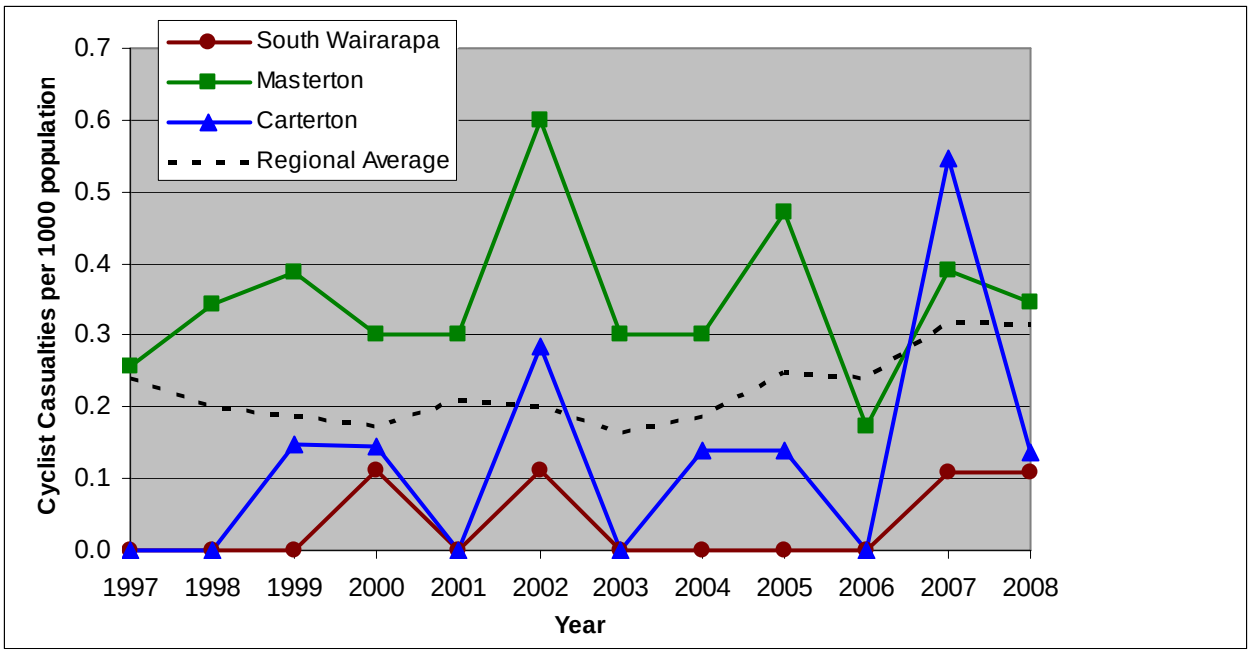



**Figure 31: Cyclist Casualties – Wairarapa districts and regional average**

The trend in cyclist casualties has been relatively static since 1997. Masterton is over represented when compared with South Wairarapa, Carterton and the regional average. This may reflect a greater number of people cycling in and around Masterton (3.7% of journey to work trips in 2006 – the highest in the region).

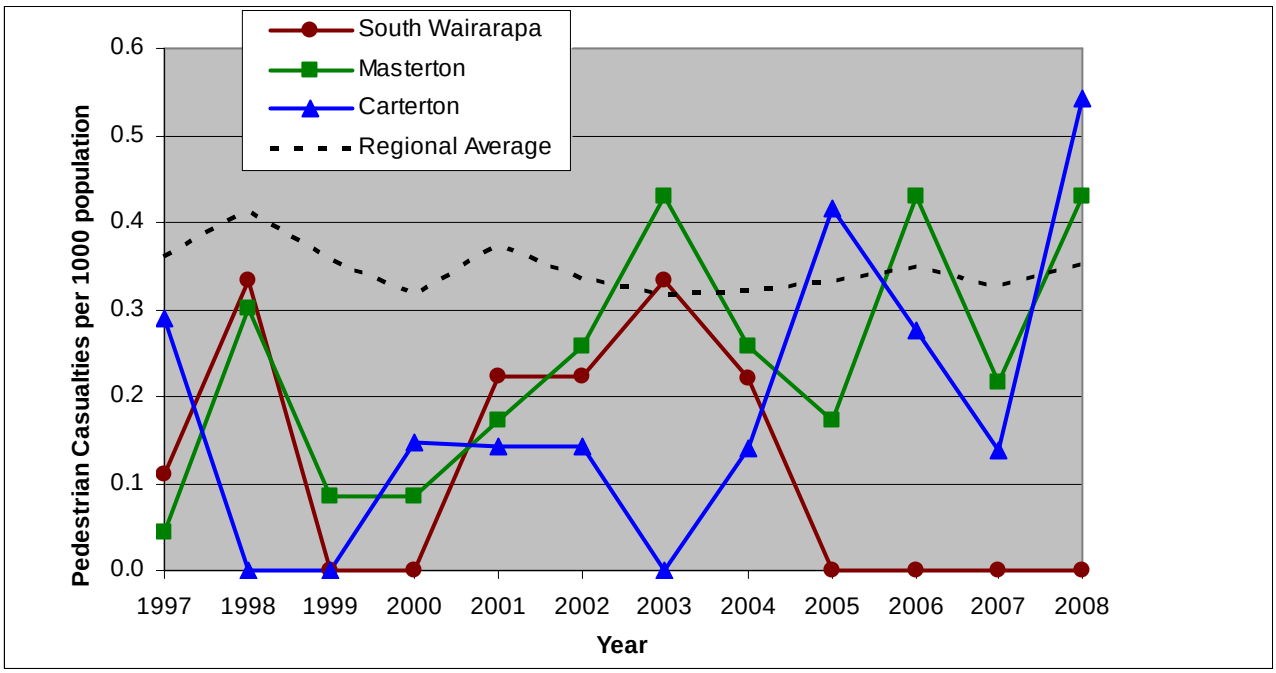



**Figure 32: Pedestrian Casualties – Wairarapa districts and regional average**

While Wairarapa pedestrian casualties sit below the regional average in most years, the trend is generally increasing over the ten year period.

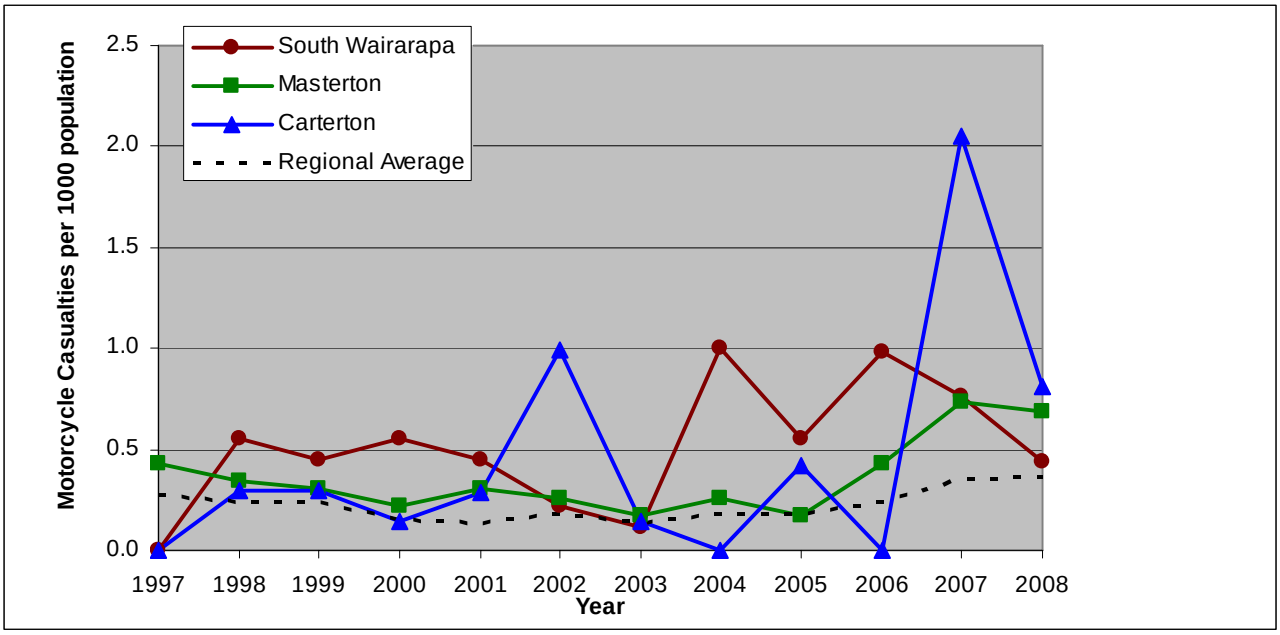



**Figure 33: Motorcycle Casualties – Wairarapa districts and regional average**

For motorcyclists the trend is increasing in all areas, in addition to motorcyclists being over represented when compared to the regional average.

### 15.3.1 State Highway Vulnerable Road User Report - 2007

In May 2007, Transit NZ (now NZTA) published a Vulnerable Road User Report which included maps identifying the location of crashes involving cyclists, pedestrians and motorcyclists on the state highway network between 1997 and 2006.

Motorcyclist crashes have occurred fairly evenly across both urban and open road sections of the state highway network. However, of note is the significant number of motorcyclist crashes on the Rimutaka Hill Road between Featherston and Kaitoke.

As we might expect, the pedestrian crashes in Wairarapa have tended to be in the town centres where higher volumes of pedestrians conflict with state highway traffic.

Cyclist crashes also largely occur in and around town centres, but as suggested by statistics earlier in this paper, a significant number of cyclist crashes occurred in and around Masterton.

### 15.3.2 Cyclist crash data – from CAS 1999 to 2008

The intersections where the highest numbers of cyclist crashes have occurred over the last ten years (using the CAS database records 1999 – 2008) are:

<u>State highways</u>

- SH2/Renall Street (6)
- SH2/Jackson Street (3)
- SH2/Russell Street (3)
- SH2/Lincoln Road (3)

Local roads

- Dixon Street/Church Street (5)
- Queen Street/Lincoln Road (4)

(MDC advise that the roundabout at Dixon/Worksop Rd has also had 3 crashes over the ten years)

These are all at intersections in the town centre within fairly close proximity of each other. There has also been a cluster of cyclist crashes on State Highway 2 in the vicinity of Te Ore Ore Road and Oxford Street (area shown as large opaque circle).


**Figure 34: Cyclist crash locations - Masterton 1999 – 2008**

NZ Transport Agency advises that they will be working on a number of cycling improvements in Masterton on SH2, subject to agreement with Masterton District Council. The scope of these improvements will cover the intersections identified above).

## 16. Inter-regional issues

Several issues identified through this report relate to the adjoining region to the north (Manawatu-Wanganui Region).

- Access to Palmerston North via the Pahiatua track – particularly for access to specialist health services.

  The Pahiatua track upgrade is a Tararua District Council Project. It is currently rated as a Category 2 project in the NLTP with a MMM rating. Advocacy in support of this project could be identified in the new Wairarapa Corridor Plan.

- Uncertainty about the future of the rail network north of Masterton.

# Summary of key trends for Wairarapa corridor

- Population growth in Wairarapa will be fairly static or declining over next 20 years, with an aging population (Stats NZ).
- A small but steady increase in household numbers can be expected, together with a decreasing household size.
- Both employment and economic growth are expected to be fairly static over the next 20 years. Highest growth is likely to occur in the accommodation, café and restaurant areas (BERL, 2008).
- Significant growth in forestry and timber products is expected from 2015 onwards.
- Growth in tourism and associated retail activity is expected to continue, while the primary and manufacturing industries are likely to decline.
- Road safety trends are getting worse, as with the rest of the region.
- Cyclists and motorcyclists are over represented in the road crashes in Wairarapa – particularly cyclists in Masterton.

# Key issues to be considered

A review of the context, trends and patterns for the Wairarapa corridor shows that the transport network is generally providing a good level of service and is comfortably accommodating the current overall transport demand.

The focus of the updated corridor plan is therefore around road safety, and responding to future demand from increased freight traffic and any significant new land development.

The following key issues were identified through development of this background and issues paper and need to be considered when updating the corridor plan:

- Projected increase in the demand for freight transport – as a result of significant growth in freight movement generally, and in relation to significant growth in log freight – more heavy vehicles will have an impact on the transport network and on townships along SH2.
- Road safety through the Wairarapa corridor is worsening, like elsewhere in the region, and crash rates are higher than the regional average on a per capita basis.
- Need to improve active mode networks, particularly the cycle network, to improve safety and increase use
- Inadequate passing opportunities on Rimutaka Hill Road – particularly for overtaking heavy vehicles.
- Substandard bridge widths on SH53 – the key one is Waihenga Bridge over the Ruamahanga – the bridge over Tauherenikau River is not as urgent but should still be flagged longer term.
- Need to provide town centre environments that are safe and attractive for pedestrians while accommodating for efficient traffic movement passing through on State Highway 2.
- Need for improved broadband access to facilitate working from home and increased productivity.
- Issues with poor rail reliability and limited off peak and weekends passenger rail services for shopping, tourism and recreation trips.
- Need to support upgrade of the Pahiatua Track as the key road access to Palmerston North.

# List of figures

# List of tables

# Appendix A: Review of projects in existing corridor plan

| Project/measure from existing plan | Progress/status |
|---|---|
| Land use measures: | |
| Ensure provisions in the District Plan facilitate the development of a log transfer and storage site at Waingawa | Provisions have been included in the proposed Wairarapa Combined District Plan to facilitate development of a log transfer and storage site at Waingawa |
| Travel demand management measures: | |
| Implement relevant initiatives of the Regional Travel Demand Management (TDM) Strategy (December 2005) | Ongoing.<br><br>No real take up of organisation/workplace travel plans by councils in Wairarapa. MDC anticipate development of a travel plan which will have regard for management of pool car fleet & will encourage use of facilities already in place by those staff that might elect to walk, run or cycle to work.<br><br>Main potential is for travel to school. At present 3 schools are signed up (and 3 more are about to) in the school travel plan programme across all three TAs. The main focus is promotion and encouragement of walking and cycling to school. A new initiative coming soon is 'Wairarapa Walk Or Wheel Wednesdays' to target all schools, not only those involved in travel plans.<br><br>Work from home and carpool initiatives also have good potential. 26 out of 600 registrations to the 'Let's Carpool' programme by Wairarapa residents – most who are destined for outside Wairarapa. |
| Passenger transport measures: | |
| Replacement of all Wairarapa carriages | Completed 2007/08. |
| Upgrade railway stations on the corridor | Completed 2007/08. |
| Provide additional bus connections to train services | Completed. Note - Martinborough has a bus connecting with every rail service. Greytown does not have a connection to every train, but has had an increase in connections. |
| Provide additional inter-peak bus services between Masterton & Featherston, including connections to Masterton Hospital | Completed. Patronage response has been very good. |
| Provide some Wairarapa bus services on Sundays | Completed. A basic weekend service is in place. |
| Expand Masterton town bus services from 2 days to 5 days per week | Completed, including new dedicated bus stops to replace previous 'hail and ride' service. Very good patronage response with increased average load. |
| Introduce initial Wairarapa integrated ticketing products for bus and rail services | Completed – monthly passes can be used on combined bus/rail or bus/bus trips. |
| Introduce Metlink signage | Completed. |

| Roading measures: | |
|---|---|
| Complete design and construction of the "Muldoons Corner" section of the Rimutaka Hill Road | Funding committed – construction to commence September 2009. |
| Replacement of the Waiohine River Bridge | Completed November 2006. |
| Construct northbound and southbound passing lanes between Featherston and Greytown | Completed. |
| Construct northbound and southbound passing lanes between Masterton and Carterton | Southbound passing lane Greytown to Carterton completed. NZTA has decided not to construct the Greytown to Carterton northbound passing lanes due to safety concerns. |
| Extend the seal on rural local roads of special tourist or forestry significance where cost effective | Ongoing. Some seal extensions have been completed but there are still areas to be considered going forward for tourism routes. MDC – forestry not a driver for seal extensions. |
| Complete the long term design for a target 55 km/h standard strategy for the Rimutaka Hill Road, recognising that a lower standard will apply to some difficult terrain sections. Obtain consents and develop detailed designs so projects are ready to go should funding become available | Muldoons corner easing project is due to commence in September 2009.<br><br>A number of safety improvements identified through crash reduction studies are now being implemented.<br><br>A State Highway Plan from Featherston to Upper Hutt was completed in October 2008, by Duffill Watts&Tse Ltd on behalf of the NZTA. This recommended projects to achieve a 55km/h design standard and suggested this be a long term goal noting marginal BCR's given current traffic volumes. (see section 3.3 above) |
| Investigate the need for heavy traffic bypasses of the townships on SH2 from Masterton to Featherston | Masterton Eastern Bypass investigation and design stages included in RLTP and NLTP for next 3 years.<br><br>No current discussions or signals around need for bypasses for Carterton, Greytown or Featherston. |
| Widen the bridges on Ruamahanga River and Tauherenikau River on SH53 | Investigation and design of SH53 Waihenga Bridge (over the Ruamahanga River) is included in the current RLTP and NLTP to be progressed over the next 3 years.<br><br>The SH53 Tauherenikau River bridge is less urgent but should still be identified for widening in the longer term.<br><br>NZTA advise that further work on Tauherenikau River bridge is tentatively scheduled in 15-20 years (subject to funding). Scope of works yet to be determined. |
| Walking and cycling measures: | |
| Ensure appropriate opportunities are taken to include walking and cycling improvements in all projects | Ongoing – Every opportunity taken to submit on large new developments in relation to provision for walking and cycling.<br><br>Masterton - Cycling Strategy recently developed – local cycling advisory group has been set up to put some energy into implementing the strategy. |

| | |
|---|---|
| | South Wairarapa -There are plans to develop a walking/cycling plan over next three years. A key issue is need for wider shoulder along SH53.<br><br>Carterton – Current LTCCP signalled a desire to develop a walking and cycling strategy during the life of the plan, recognising the important health, environmental, economic and safety benefits of such a strategy.<br><br>NZTA - Regional State Highway Cycling Plan development is currently on hold and it is unclear at this stage when the plan will be progressed. (This plan was to identify how cycling initiatives signalled in the RLTS and Regional Cycling Plan can be implemented on the region's state highway network). |
| Freight measures: | |
| Develop a log transfer and storage site at Waingawa as a commercial partnership | Interest by some companies but nothing yet established |
| Investigate and develop stock effluent sites at key locations | NZTA advise that preliminary investigations were undertaken on a potential site at Oldfields in Masterton about 5 years ago. No significant progress was made with these investigations – and no work is scheduled to progress this.<br><br>CARTA confirm that they do not believe there is any need for further stock effluent sites in Wairarapa – they are currently investigating a site for a new facility near Woodville which is where the need is. |
| Investigate and, if feasible, develop a log transfer and storage site near Featherston | No discussion or plans apparent |

# Appendix B: Key Information sources

BERL (November 2008). *Economic profile and projections for the Wairarapa region*. Available on the Wairarapa Chamber of Commerce website http://wairarapachamber.co.nz [search BERL]

Greater Wellington Regional Council (2008) *Annual Monitoring Report on the Regional Land Transport Strategy 2007/08*

Greater Wellington Regional Council (2008) *Regional Rail Plan*

Greater Wellington Regional Council (2009) *Proposed Regional Policy Statement*

Grow Wellington website: www.growwellington.co.nz

Masterton District Council, South Wairarapa District Council and Carterton District Council. *Proposed Wairarapa Combined District Plan*

Ministry of Agriculture and Forestry (2008) *Central North Island Wood Availability Forecasts 2008 – 2040*. Available online at: http://www.maf.govt.nz/mafnet/publications/wood-availability/central-north-island/index.htm

Ministry of Agriculture and Forestry. *Community Irrigation Fund Project Summary*. Available online at: http://www.maf.govt.nz/mafnet/rural-nz/cif/projects/index.htm

Ministry of Transport (September 2008), *National Freight Demands Study*

NZ Transport Agency – Crash Analysis System (CAS)

NZ Transport Agency (Oct 2008) *State Highway Plan Featherston to Upper Hutt*

Statistics NZ – Census data from 1996, 2001, 2006.

Transit NZ (1998) *State Highway 2 Mt Bruce to Featherston Strategy Study Summary Report*

Wairarapa Chamber of Commerce website http://wairarapachamber.co.nz

Wellington Regional Strategy website http://www.wrs.govt.nz

Meeting with Michael Dennehy (Area Manager) and Colin McAuley from Central Area Road Transport Association.

Information supplied by the Wairarapa Corridor Technical Working Group – with representatives from Greater Wellington (Transport Policy, Public Transport and Environmental Policy), NZ Transport Agency, Masterton District Council, South Wairarapa District Council, Carterton District Council, and Upper Hutt City Council.