2010/11 Annual Monitoring Report on the Regional Land Transport Strategy

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Executive Summary

This report has been prepared in accordance with Section 83 of the Land Transport Management Act 2003 and reports progress in implementing the Wellington Regional Land Transport Strategy (RLTS) 2010–40.

A wide range of performance indicators are used to measure progress against the key outcomes and associated 2020 stretch targets identified in the Wellington RLTS. Further monitoring, investigation and development of new performance indicators is required to be able to measure progress against all RLTS key outcomes to 2020. These are identified in this report.

2010/11 Regional land transport report card

The report card below sets out the Wellington RLTS key outcomes, associated 2020 stretch targets and the 2010/11 results for those indicators which measure progress in achieving them. An assessment of the trend in progressing towards the 2020 targets from the last available result is also provided where possible.

Report card: 2010/11 progress against Wellington RLTS 2020 targets for each key outcome

Key outcome	2020 Stretch target	2010/11 Result	Previous result	Trend
Increased peak period public transport mode share	Public transport accounts for at least 23 million peak period trips per annum	18.8 million in 2010/11 financial year	17.4 million in 2009/10 financial year	✓✓
	Public transport accounts for at least 21% of all region wide journey to work trips	Next update due 2013/14 financial year	16.9% in 2006 census 16.1% in 2001 census	?
Increased mode share for pedestrians and cyclists	Increase active mode use to at least 30% of all trips in urban areas	26% of all trips were made by active modes in 2006-10	26% of all trips were made by active modes in 2005-09	–
	Active modes account for at least 15% of region wide journey to work trips	Next update due 2013/14 financial year	13.2% in 2006 census 12.5% in 2001 census	?
Reduced greenhouse gas emissions	Transport generated CO_2 emissions will be maintained below year 2001 levels	1,075 kilotonnes in 2010/11 financial year	1,100 kilotonnes in 2009/10 financial year	✓
Reduced severe road congestion	Average congestion on selected roads will remain below year 2003 levels despite traffic growth	21.6 seconds in March 2011	23.4 seconds in March 2010	✓
Improved regional road safety	There are no road crash fatalities attributable to roading network deficiencies	0 fatalities attributable to road factors in 2010 calendar year	0 fatalities attributable to road factors in 2009 calendar year	✓
	Continuous reduction in the number of killed and seriously injured (corrected for reporting rate) on the region's roads	387 killed and seriously injured in 2010 calendar year	325 killed and seriously injured in 2009 calendar year	✖
Improved land use and transport integration	All new subdivisions and developments include provision for walking, cycling and public transport, as appropriate	Some provision made	Some provision made	–
Improved regional freight efficiency	Improved road journey times for freight traffic between key destinations	24.3 minutes in March 2011	26.3 minutes in March 2010	✓

✓✓ strongly positive ✓ positive – neutral ✖ negative ✖✖ strongly negative ? insufficient information

Summary of progress

The report also includes an overall summary of progress in implementing projects, activities and actions identified within the various RLTS implementation documents. A number of milestones were recorded for the 2010/11 year including:

Strategy

- adoption of the updated Wairarapa Corridor Plan (September 2010)
- adoption of the Regional Freight Plan (June 2011)

Public transport

- completion of rail track upgrades at Kaiwharawhara Throat (July 2010)
- introduction of the new Total Mobility electronic system (September 2010)
- completion of the Mackays Crossing to Waikanae double tracking project (February 2011)
- introduction of Real Time Information on Go Wellington bus services (March 2011)
- first 4-car Matangi train into regular revenue service (March 2011)

Travel demand management, walking and cycling

- Established regional bus drivers/cyclists share the road awareness workshops
- Facilitated up-skilling in cyclist skills training for Police Education Officers, teachers and community members

The report also sets out major programmes and projects which are scheduled to be commenced or completed in the 2010/11 financial year.

1. Introduction

1.1 Statutory context

Land Transport Management Act 2003

The Land Transport Management Act 2003[1] requires every regional council to establish a Regional Transport Committee (RTC). The primary responsibility of the RTC is to prepare a Regional Land Transport Strategy (RLTS) to set the strategic direction for a region's land transport network. Every RLTS must contribute to the overall aim of achieving an affordable, integrated, safe, responsive and sustainable land transport system.

Section 83 of the amended Land Transport Management Act 2003 requires the preparation of a monitoring report which documents progress in implementing the RLTS. The report must be published at least every three years.

1.2 Wellington Regional Land Transport Strategy

The Wellington RLTS 2010–40 was adopted in September 2010 following an extensive review and consultation process. It includes a new strategic framework for planning the region's transport network over the next 30 years.

The Wellington RLTS includes a long term vision, six objectives, and a comprehensive list of policies, desired outcomes and associated targets. The strategy outcomes have been given a hierarchical structure of 'key outcomes' and 'related outcomes' to clearly signal priorities for the Strategy. The key outcomes in the Wellington RLTS are:

- 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.

The Strategy targets were developed to signal the magnitude of the changes sought in relation to each Strategy outcome. These targets provide a benchmark against which to measure progress. More ambitious 'stretch' targets have been set in relation to the Strategy's 'key outcomes' to signal the need for greater emphasis and progress in relation to these areas.

[1] As amended by the Land Transport Management Amendment Act 2008.

1.3 Content and structure

This report presents information on a range of indicators both within the region and across its boundaries. If data is available, the report tracks the current condition (for the 2010/11 year) and monitors trends over time. This information is used to provide a picture of regional performance from a transport perspective.

Where possible, we are benchmarking ourselves against New Zealand's other two largest regions with significant transport issues: Auckland and Canterbury. This gives some indication of broader New Zealand transport issues, and allows us to see how well we are doing at a national level.

Structure of the 2010/11 Annual Monitoring Report (AMR)

This AMR reports our progress on the key outcomes identified in the Wellington RLTS 2010–40. Progress against each key outcome and associated strategic target(s) is measured with a series of indicators. The data represented by the indicator is analysed and some commentary is also provided.

An overall summary of progress in implementing the actions and projects which sit alongside the RLTS in various corridor plans, implementation plans and the Regional Land Transport Programme 2009–12 are described in the RLTS implementation section.

Targets

The targets identified in the Wellington RLTS have been included on the various indicator graphs in this AMR to demonstrate where we are at now compared to the RLTS 2020 target.

Information availability

Agencies continue to supply information for the monitoring programme and Greater Wellington Regional Council (GWRC) gratefully acknowledges this.

Each AMR stands alone as information availability improves or data is replaced retrospectively. Therefore data presented in previous reports may not be entirely comparable to this report.

All reported data relates to the financial year ending at 30 June and is for the Wellington region unless otherwise stated.

1.4 The Regional Transport Network

The Wellington RLTS provides a development framework for the region's transport network and the AMR monitors a number of indicators to gauge the performance of the network. Wellington's regional transport network is shown in Figure 1.1 below.

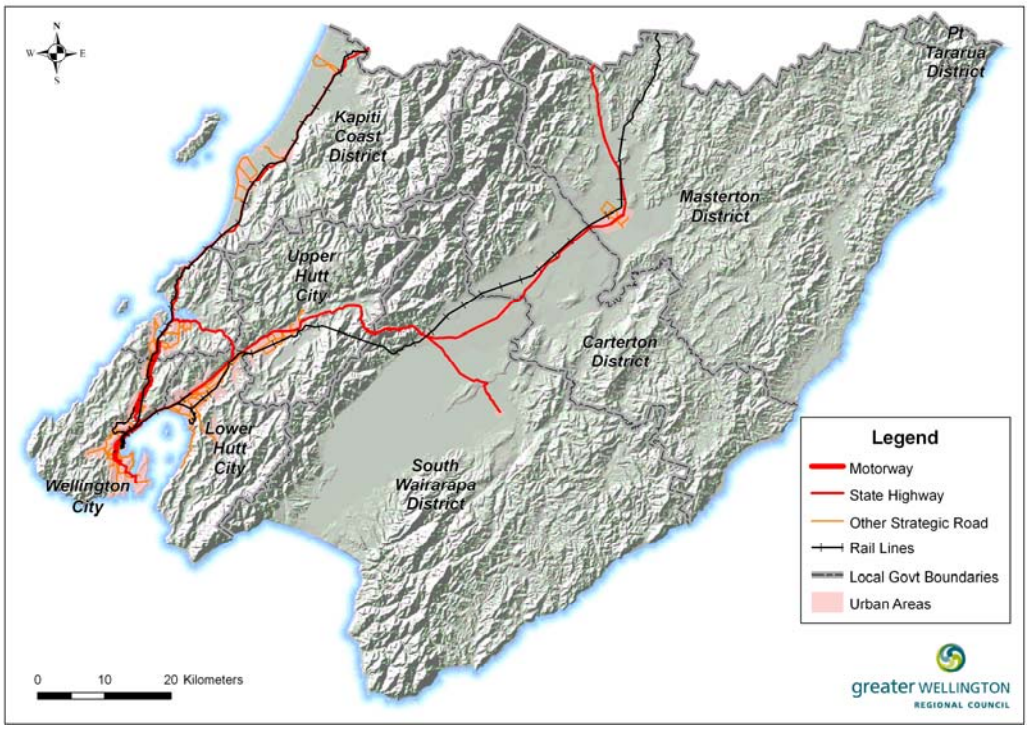

Figure 1.1: Wellington's regional transport network

State Highway 1 and the North Island Main Trunk rail line enter the region near Otaki on the Kapiti Coast and extend southwards through Porirua and the Northern Wellington suburbs to the Wellington City CBD. State Highway 1 then continues on to Wellington International Airport.

State Highway 2 and the Wairarapa rail line enter the region north of Masterton and extend south-west through Wairarapa, the Hutt Valley and on to merge with State Highway 1 at Ngauranga and the main trunk rail line at Kaiwharawhara.

State Highway 58 is a vital east-west link between State Highways 1 and 2. State Highway 53 connects Martinborough to the regional network at Featherston.

The regional transport network provides vital access for freight and passengers to key regional destinations including the Wellington City CBD and other regional centres, CentrePort (Wellington's sea port), Wellington International Airport, and Wellington's regional hospital in Newtown. It also provides important access for local trips within communities.

2. Increased peak period public transport mode share

2.1 Peak trips by public transport

Target: Public transport accounts for at least 23 million peak period trips per annum

Figure 2.1 presents the annual number of passenger trips taken by train, bus and ferry during the AM and PM peak periods. It also illustrates the RLTS target of 23 million trips per annum by 2020. During 2011, 18.8 million peak period passenger trips were made by public transport, with bus trips accounting for 60.1% of all trips. Rail accounts for 39.4% of all trips, and ferry trips make up 0.5%. The total number of peak period passenger trips is above the scheduled RLTS target for 2011, which is based on uniform growth between 2010 and 2020.

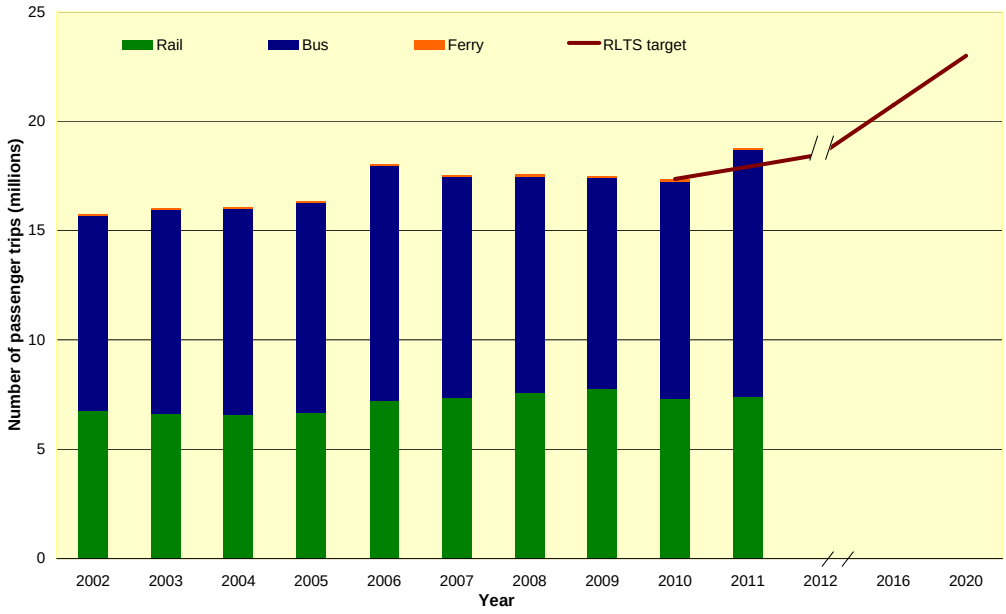

Figure 2.1: Public transport patronage: number of passenger trips by mode, combined peak periods. Source: GWRC

Since monitoring began in 2002, bus trips have accounted for the highest proportion of peak period public transport trips. In 2010, peak bus patronage increased for the first time since 2006, with a 3.5% increase compared to 2009. Over the last year peak bus patronage has continued to increase, with over 1.3 million (13.5%) more peak period passenger trips by bus in 2011 compared to 2010.

The number of peak period passenger trips by train has also increased (1.2%) over the last year. While this increase is only small, it is encouraging in light of the service disruptions that have occurred over the last year as a result of essential rail infrastructure maintenance and renewal work forming part of the rail upgrade project. It is hoped that the continuing roll out of the new Matangi trains and rail infrastructure improvements will maintain growing rail patronage and contribute towards achieving the RLTS target.

Ferry passenger trips, while small in number compared to peak period bus and train trips, have decreased by 2.8% over the last year. This follows a 0.5% decrease the previous year.

2.2 Mode of journey to work: public transport

Target: Public transport accounts for at least 21% of all region wide journey to work trips

Data from the 2006 New Zealand census showed that 17% of journey to work trips across the region used public transport[2] as the 'main means of travel to work' (Figure 2.2). In 2006, train mode share of journey to work trips was found to be 7%, and bus 10%.

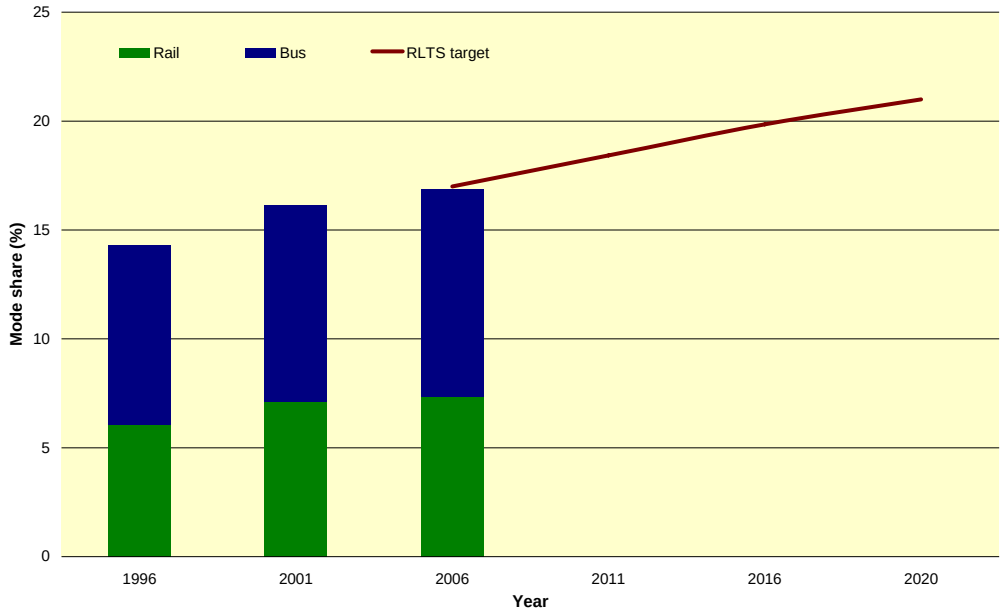

Figure 2.2: Public transport mode share of journey to work trips (%). Source: Statistics New Zealand

Journey to work trips made by public transport increased by about 4,400 trips between the 2001 to 2006 census periods. This followed an increase of around 3,800 trips over the prior census period. The increase in trips from 1996 to 2006 has resulted in the mode share of journey to work trips by public transport increasing from 14% to 17%. Further increases are required to achieve the RLTS target of 21% by 2020.

Public transport mode share of journey to work trips has increased in all territorial authority areas except Porirua over the last two census periods (Figure 2.3). Public transport mode share is greatest in Wellington City and lowest in Wairarapa, but Kapiti has seen the largest growth in public transport mode share across the last three census periods.

[2] Public transport was defined as: travel by public bus or train. Travel by ferry is not included.

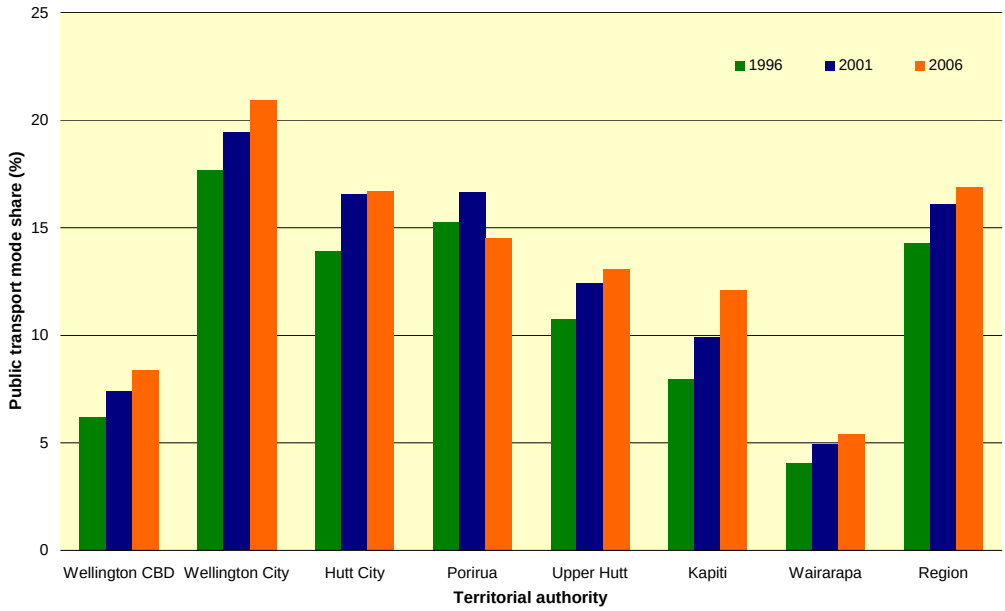

Figure 2.3: Public transport mode share of journey to work trips by territorial authority and Wellington CBD (%).
Source: Statistics New Zealand

2.3 Key outcome summary

The performance indicators for this key outcome show that, as a region, public transport use and mode share are higher than they were towards the beginning of the decade. However, public transport trips had been decreasing during peak periods since 2006. Over the last year this trend reversed with the first increase in peak period public transport trips observed since this time.

Over the last year there has been an 8.2% increase in peak period public transport trips. Regionally, public transport trips by bus are more prevalent than other public transport modes during the peak periods; and it is the large increase in bus trips (13.5%) over the last year that account for the observed increase in peak period public transport trips. The number of train trips during the peak periods has also increased (1.2%) over the last year. While the rail increase is only small, it is encouraging in light of the service disruptions that have occurred over the last year.

The increase in peak period public transport trips means that progress has been made towards the RLTS target of 23 million peak period trips per annum. However, achieving the 2020 stretch target will be a significant challenge as a further 22% increase on current patronage levels is required.

Until the next census it is not possible to see whether the region is on track to achieve its other target of public transport accounting for at least 21% of all region wide journey to work trips. The next census update is not due until the 2013/14 financial year.

The Ministry of Transport uses results from its Household Travel Survey to work out mode share of journeys to work (for full-time workers aged 16+, journeys starting between 6am and 9.30am). Although it uses a different

methodology, the 2006-10 survey found that 20% of journeys to work in the Wellington region used public transport.[3]

Results from this same survey for the 2003-07 time period found no change in the percentage of journeys to work using public transport. If no increase in mode share of journeys to work using public transport is also assumed for the indicator in Figure 2.2 this would mean that public transport mode share would be around one and a half percentage points below the scheduled RLTS target for 2011, making attaining the 2020 stretch target for this indicator a challenge.

Over the last year there were 18.8 million passenger trips by public transport during the peak periods. This illustrates the importance of public transport to the region, and shows that public transport plays a significant role in transporting the region's commuters during the peak periods.

Growth in both bus and rail patronage occurred over the last year but the majority of the increase came from increased bus patronage. Public transport mode share has increased since the beginning of the decade but there are indications that there has been little or no change over recent years. Despite this, progress has been made towards this RLTS key outcome. However, achieving the 2020 stretch targets for this outcome pose real challenges to the region.

[3] Public transport trips are counted as those in the categories: Public transport or Public transport/walk; and Public transport/car or Public transport/car/walk.

3. Increased mode share for pedestrians and cyclists

3.1 Overall active mode share

Target: Increase active mode use to at least 30% of all trips in urban areas

Walking and cycling combined are considered the "active modes" of transport.

The Ministry of Transport's Household Travel Survey began in 2003 and collects household and personal travel information to help monitor the travel patterns of New Zealanders.[4] The information is presented as five year averages in order to build statistically significant sample sizes for comparison.

The active mode share of total trip legs[5] by residents (ages 5 and over) of main urban areas[6] in the Wellington region from the Household Travel Survey is shown in Figure 3.1. Active mode share of all trips within urban areas in the Wellington region was 26% in the 2006-10 survey period. This is the same as the 2005-09 survey period but an increase from the 23% observed in 2003-07.

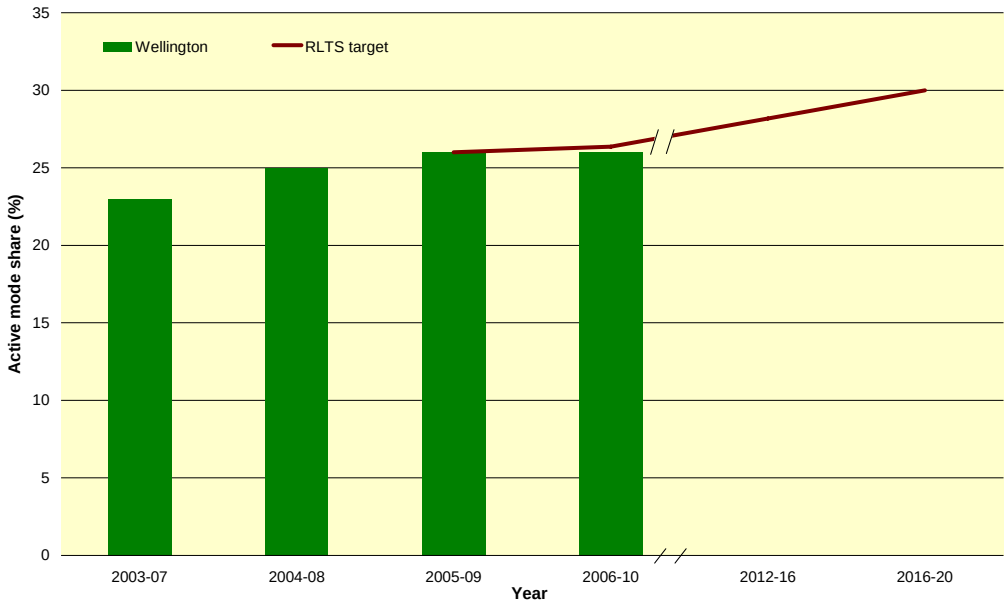

Figure 3.1: Active mode share of total trip legs (%) by residents of Wellington urban areas (ages 5 and over). Source: Ministry of Transport TMIF TP005

Figure 3.2 compares the active mode share of total trip legs by residents of main urban areas in the Wellington region against New Zealand's two other largest regions as well as New Zealand overall. Compared to other urban areas, Wellington has a higher active mode share of total trip legs than Auckland (17%), is equivalent to Christchurch (26%) and has been consistently above the New Zealand average (20%) in all surveys.

[4] For more information on the survey see *www.transport.govt.nz/research/travelsurvey/*
[5] A "trip leg" is a surveying unit of non-stop travel by a single mode for a single purpose.
[6] A main urban area is a population centre of at least 30,000 people as defined by Statistics New Zealand.

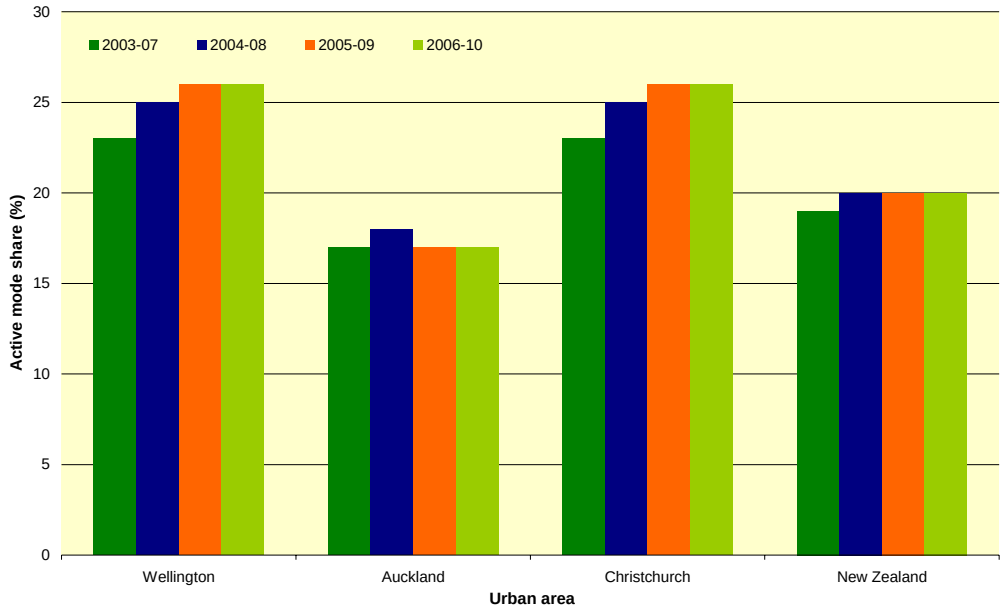

Figure 3.2: Active mode share of total trip legs (%) by residents of selected main urban areas (ages 5 and over). Source: Ministry of Transport TMIF TP005

3.2 Mode of journey to work: active modes

Target: Active modes account for at least 16% of region wide journey to work trips

Data from the New Zealand census, in 2006, shows that 13% of journey to work trips across the region used active modes[7] as the 'main means of travel to work' (Figure 3.3). Walking mode share of journey to work trips was found to be 11%, with cycling at 2%.

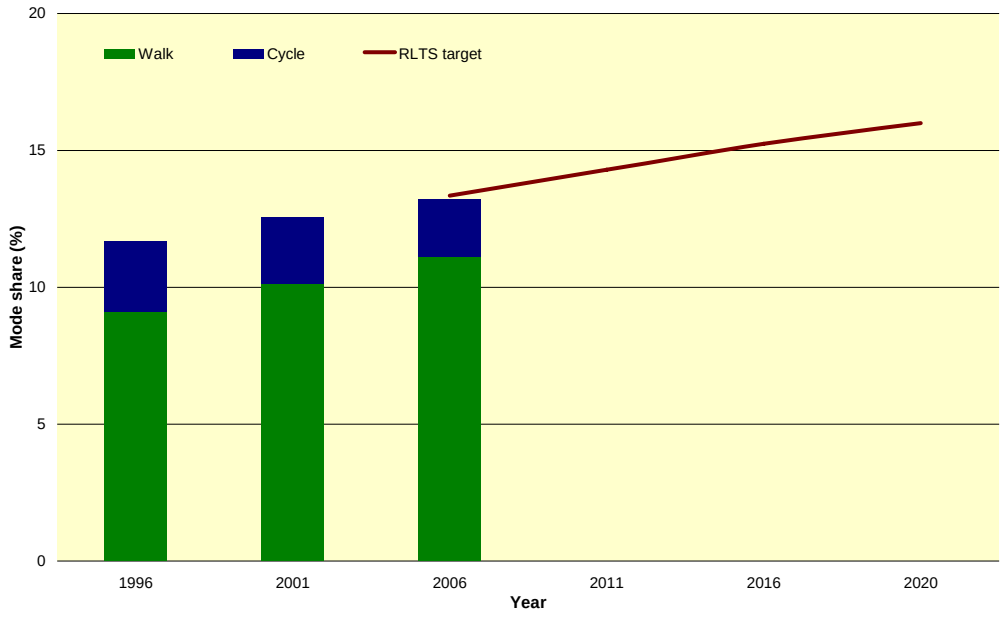

Figure 3.3: Walking and cycling mode share of journey to work trips (%). Source: Statistics New Zealand

[7] Active mode was defined as: 'walked or jogged, bicycle'.

The total number of active mode journey to work trips increased by just over 3,500 from 2001 to 2006, which equates to a 17% increase in active mode trips to work. This involved a 5% decrease in the number of cycle trips to work but a 22% increase in the number of walking trips.

Active mode share of journey to work trips differs greatly across the region (Figure 3.4). There are nearly 70% and 20% of journey to work trips using active modes in Wellington CBD and Wellington City respectively, but less than 10% in all other territorial authority areas. The active mode share in Wellington CBD and Wellington City also shows an increasing trend over time, whereas a decreasing trend is observed for the other territorial authorities.

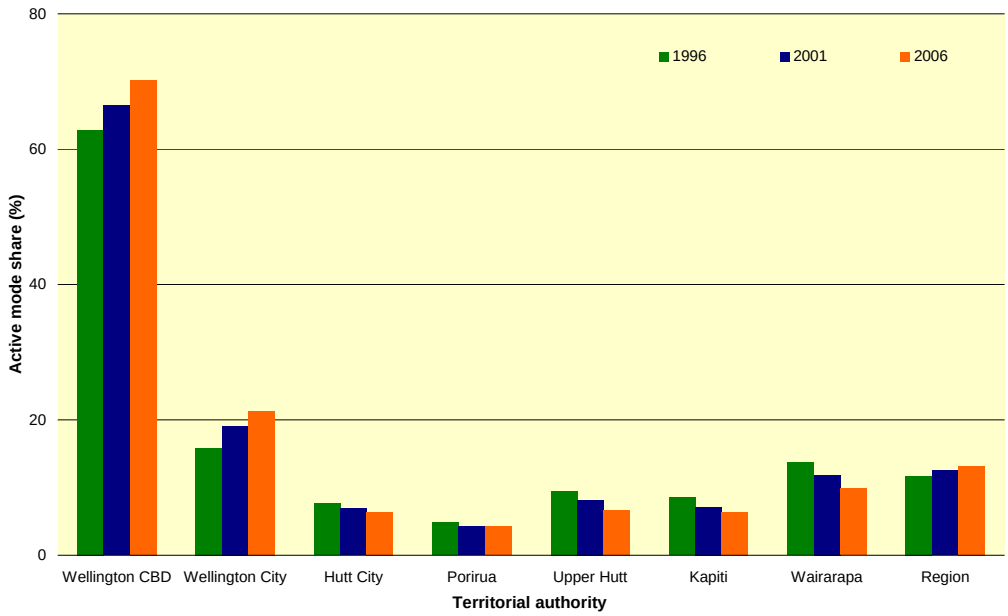

Figure 3.4: Active mode share of journey to work trips by territorial authority and Wellington CBD (%). Source: Statistics New Zealand

3.3 Key outcome summary

The performance indicators for this key outcome show that, as a region, the pedestrian and cycle mode share has increased over time. The majority of active mode trips in the region are walking trips. From the 2006-10 Household Travel Survey, walking trips accounted for 25% of total trips and cycling trips accounted for 1%. From the 2006 census walking mode share made up 11% of journey to work trips with cycling accounting for 2% of journey to work trips.

Although active mode use has not increased over the last year, longer-term trends indicate that progress has been made towards the RLTS target of increasing active mode use to at least 30% of total trips in main urban areas. Compared to Auckland and New Zealand overall, Wellington has relatively high active mode use, but considerable growth is required if the 2020 RLTS target is to be achieved.

Census data has shown that active mode share of journey to work trips has been increasing and in 2006 the active mode share of journey to work trips was only three percentage points short of the 2020 RLTS target. As the next census

data release will not be until the 2013/14 financial year it is not possible to tell whether the region has made any further progress at achieving this target since 2006.

Although a different methodology, the Ministry of Transport uses results from its Household Travel Survey to work out mode share of journeys to work (for full-time workers aged 16+, journeys starting between 6am and 9.30am). The 2006-10 survey found that 9% of journeys to work in the Wellington region used active modes.[8] Results from this survey in 2003-07 found that 6% of journeys to work used active modes, indicating an increase in active mode share of journeys to work over recent years. If a similar percentage point increase is assumed with the census data it would mean that active mode share of journey to work would be around 16%, at the 2020 stretch target for this outcome.

[8] Active mode trips are counted as those in the categories: walk only and cycle.

4. Reduced greenhouse gas emissions

4.1 Carbon dioxide emissions

Target: Transport generated CO_2 emissions will be maintained below year 2001 levels

Carbon dioxide is the most abundant greenhouse gas formed from the combustion of fossil fuels.[9] Figure 4.1 shows the transport generated CO_2 emissions for the region, which have been calculated from fuel consumption information.[10]

In 2011 land transport fuel combustion produced 1,075 kilotonnes of CO_2 in the Wellington region. This is a decrease from 1,100 kilotonnes in 2010.

Carbon dioxide emissions remain slightly above the RLTS target of 1,065 kilotonnes per annum. Since 2008, there has been a general decrease in the emission levels despite a growing population, indicating a reduction in CO_2 emissions per capita. While this is positive, more needs to be done if the RLTS target is to be achieved.

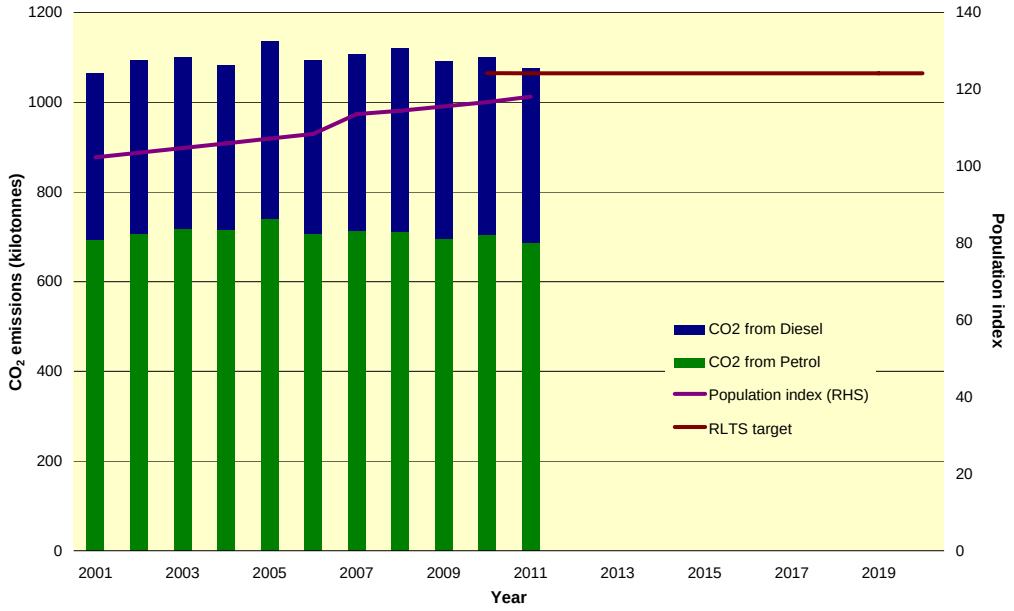

Figure 4.1: Transport generated CO_2 (kilotonnes). Sources: local authorities; Ministry of Economic Development

[9] Ministry of Transport (2008). *The New Zealand Transport Strategy 2008*. Ministry of Transport, Wellington, p. 95.

[10] Carbon dioxide emission levels for the region have been calculated from fuel consumption data using production rates from the Ministry of Economic Development greenhouse gas emissions report (2010). The factors are: 2.31 kg/L of CO_2 per litre of petrol and 2.64 kg/L for diesel.

4.2 Key outcome summary

Carbon dioxide comprises the bulk of greenhouse gas emissions from transport, and 18% of New Zealand's total greenhouse gas emissions are from the transport sector.[11] Without intervention, these emissions are predicted to grow by 35% over the next quarter century.[12] A reduction in transport sector emissions will therefore significantly impact overall greenhouse gas levels.[13]

The performance indicator for this key outcome shows that, as a region, our transport-generated CO_2 emissions have decreased slightly over the last few years. It is likely that increased fuel prices, together with increased vehicle fleet efficiency, and the economic recession have assisted in curbing fuel sales, and hence transport-generated CO_2 emissions.

The region's transport generated CO_2 emissions do remain slightly above the RLTS target for this outcome, but it is encouraging that our emissions have decreased slightly despite an increasing population. Although work to reduce transport-generated CO_2 emissions is having an impact, more effort is needed if the RLTS target is to be achieved. As a region, this could include reducing the need to travel, improving the efficiency of the transport network, and promoting the use of active modes and public transport.

[11] Ministry of Transport (2008). *The New Zealand Transport Strategy 2008*. Ministry of Transport, Wellington, pp. 23.
[12] Ministry for the Environment (2007). *Understanding Climate Change. Get a Grasp of the facts*. Ministry for the Environment, Wellington, p. 7.
[13] Ministry of Economic Development (2007). *New Zealand Energy Strategy to 2050*. Ministry of Economic Development, Wellington, p. 34.

5. Reduced severe road congestion

5.1 Average road congestion

Target: Average congestion on selected roads will remain below year 2003 levels despite traffic growth

Travel time performance is monitored by the NZTA in March and November of each year on the following Wellington region strategic routes:

- Route 1: Waikanae – Wellington airport
- Route 2: Upper Hutt – Wellington Railway Station
- Route 3: Porirua – Seaview (via SH58)
- Route 4: Karori – Island Bay.

These routes can be seen on the map in Figure 5.1. This information yields a measure of congestion (time delay per kilometre travelled) for the morning peak period (AM), interpeak period (IP) and afternoon peak period (PM). These are then used to calculate an all day average. Data is susceptible to day-to-day variations in network performance caused by incidents such as crashes, breakdowns and road works.

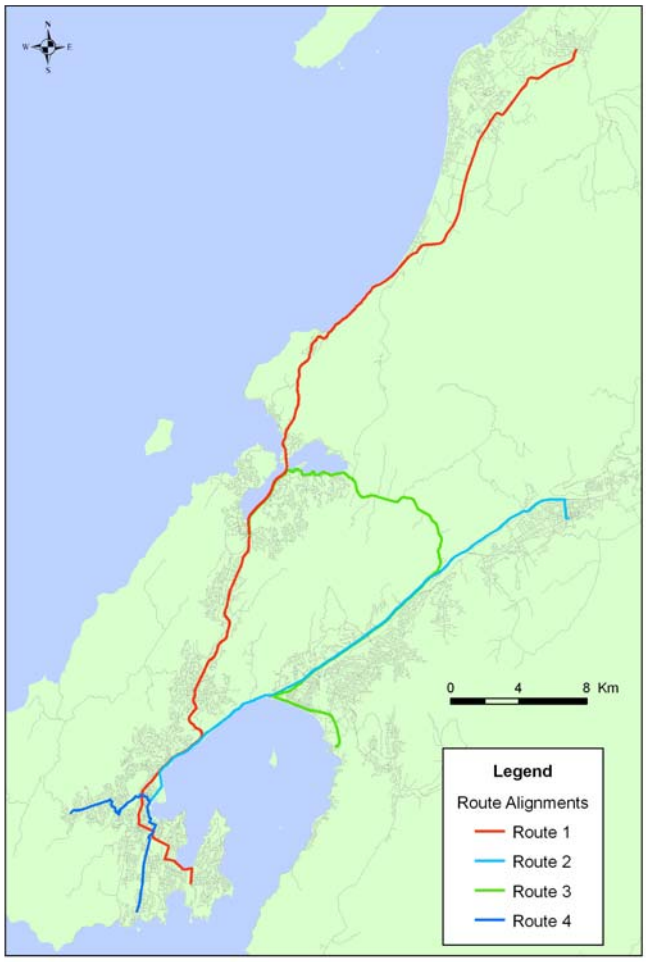

Figure 5.1: Greater Wellington region travel time performance monitoring network. Source: New Zealand Transport Agency

Information from NZTA's March travel time surveys are used to determine the all day average congestion on a selection of the region's strategic road network (Figure 5.2). In 2011, the all day average congestion was 21.6 seconds delay per km travelled. This is a decrease of 1.8 seconds from 2010.

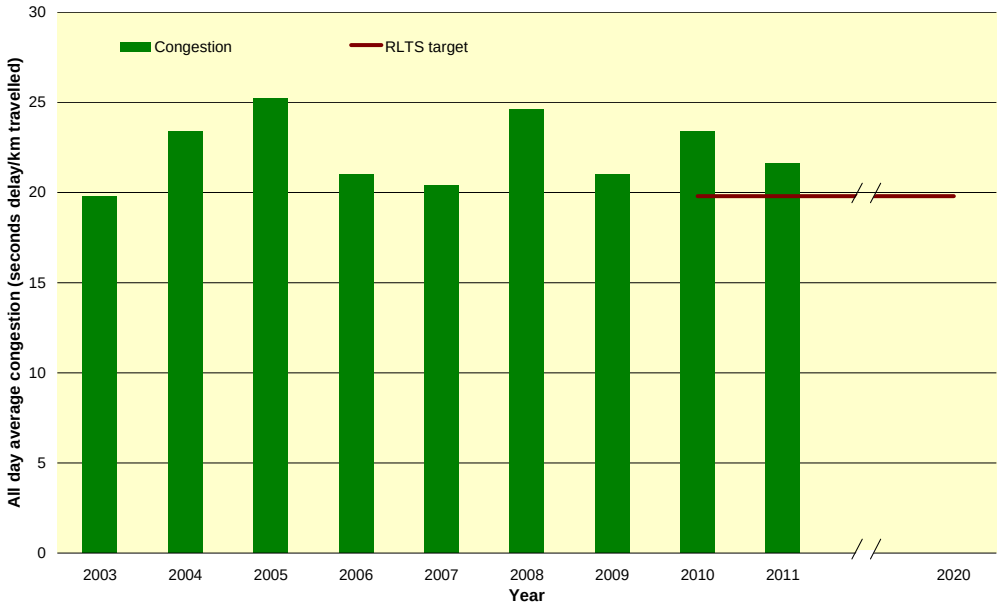

Figure 5.2: All day average congestion (seconds delay/km travelled), March. Source: New Zealand Transport Agency

Figure 5.3 shows the average congestion results for three different periods of the day. Compared to 2010, congestion has decreased across each period of the day. Morning peak period congestion decreased to 33.0 seconds delay per km travelled, compared to 34.2 seconds delay per km travelled in 2010. Interpeak congestion decreased from 11.4 to 9.6 seconds delay per km travelled, and afternoon peak period congestion decreased from 23.4 to 21.6 seconds delay per km travelled over the same period.

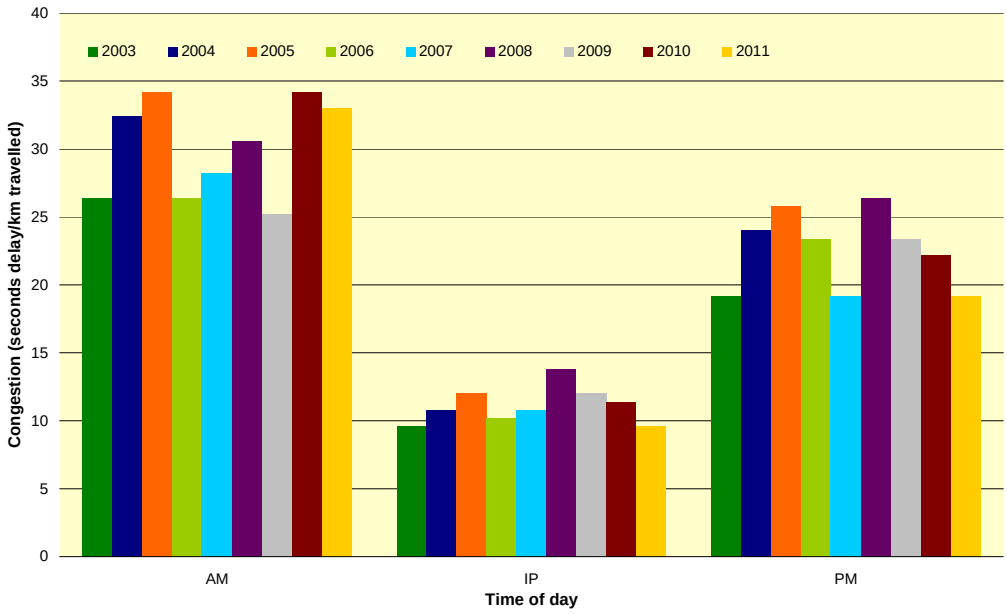

Figure 5.3: Average congestion (seconds delay/km travelled) by the time of day, March. Source: New Zealand Transport Agency

Looking at longer term trends, interpeak and PM peak congestion rates have decreased gradually each year from 2008, and in 2011 both interpeak and PM peak congestion rates were at the same level observed in 2003. While the AM peak congestion rate has decreased slightly over the last year, it remains over six seconds higher than the AM peak congestion rate in 2003.

Over the last year the all day average congestion level has decreased towards the RLTS target, but the high congestion rate during the AM peak means that the congestion rate currently exceeds the RLTS target by 1.8 seconds.

5.2 Key outcome summary

In the Wellington region, congestion is higher in the morning peak than the afternoon peak, which in turn is higher than the interpeak period. Road congestion during the interpeak and afternoon peak has decreased each year since 2008, with 2011 congestion levels at the same level as observed in 2003. Although the morning peak congestion rate has decreased over the last year it remains over six seconds higher than the 2003 congestion level.

The decrease in congestion rates over the last year are encouraging and have resulted in a decrease in the all day average congestion rate. However, congestion rates continue to remain above the RLTS target of 19.8 seconds delay per km travelled. If the target is to be achieved, the level of demand on the transport network and day-to-day variations in network performance need to reduce, especially during the morning peak.

6. Improved regional road safety

6.1 Road crash fatalities

Target: There are no road crash fatalities attributable to roading network deficiencies

The total number of regional road crash fatalities[14] and the number of fatalities attributable to road factors[15] as reported by the Police to NZTA via the Crash Analysis System (CAS)[16] is shown in Table 6.1. In 2010, no road crash fatalities were attributable to road factors. The last time that a road crash fatality in the region was attributable to road factors was in 2004.

Year	Total fatalities	Fatalities attributable to road factors
2000	32	0
2001	30	0
2002	23	1
2003	34	0
2004	32	1
2005	20	0
2006	32	0
2007	15	0
2008	22	0
2009	20	0
2010	10	0

Table 6.1: Total fatalities and fatalities attributable to road factors. Calendar year. Source: Crash Analysis System

6.2 Killed and seriously injured

Target: Continuous reduction in the number of killed and seriously injured on the region's roads

Figure 6.1 shows the number of fatal and serious[17] injury casualties for all vehicle types in the Wellington region as reported by the Police to NZTA via CAS. The crash reporting rate published by NZTA is also shown, which takes into account the known under-reporting of serious injury causalities.[18]

[14] Injuries that result in death within 30 days of a crash.
[15] To be able to monitor our performance against the RLTS target, we have taken the road factor category reported in the Crash Analysis System to be a proxy measure for road network deficiencies. Road factors include the categories: slippery, surface, obstructed, visibility limited, signs and signals, markings, street lighting and raised islands and roundabouts.
[16] The severity of a crash is determined as the most severely injured casualty in the crash.
[17] Serious = fractures, concussion, internal injuries, crushing, severe cuts and lacerations, severe general shock necessitating medical treatment, and any injury involving removal to and detention in hospital.
[18] The number of serious injury casualties from Police crash reports is compared to hospital admissions.

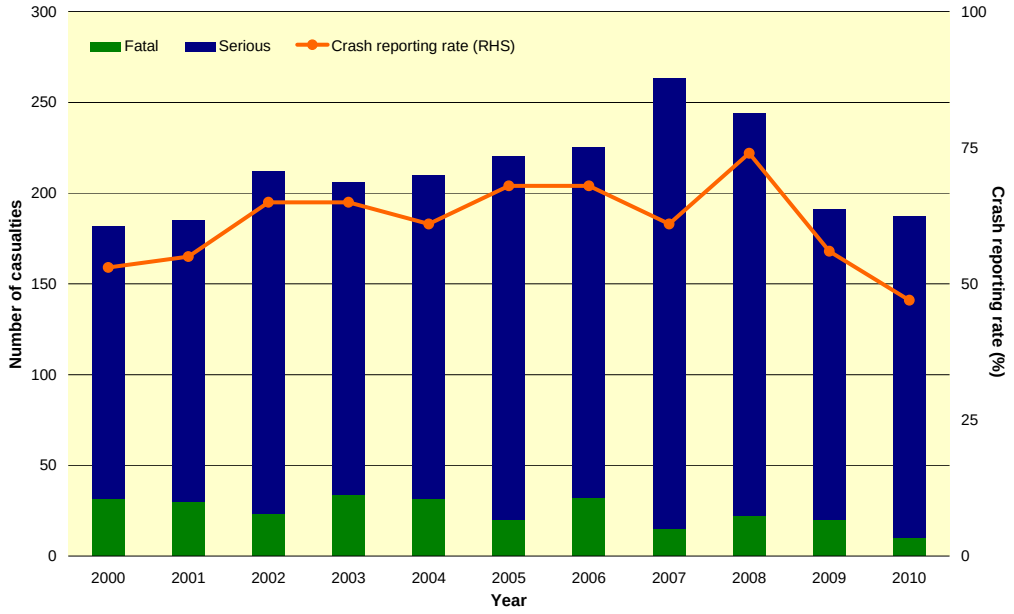

Figure 6.1: Total fatal and serious injury casualties, and crash reporting rate (%). Calendar year. Sources: Crash Analysis System; New Zealand Transport Agency

Crash reporting rates have fluctuated over the last decade, but show a general increase from 2000 to 2008, followed by a rapid decrease from 2008 to 2010.

In 2010 there were 10 fatal and 177 reported serious injury casualties, but the crash reporting rate was low at 47%. Correcting for reporting rate takes the number of serious injury casualties in 2010 to 377, and the total number of fatal and serious casualties to 387 (see Figure 6.2).

In general from 2000 to 2010, the number of fatal casualties has decreased and over the last year alone the number of fatalities has halved from 20 to 10. While the decrease in the number of fatalities on the region's roads is encouraging, having no fatalities on the region's road will always be the aim for the region.

The number of serious injury casualties has decreased since 2008, but correcting for crash reporting rate results in the number of serious injury casualties increasing since this time. In particular, the number of corrected serious injury casualties has spiked over the last year, with numbers 23% higher than the previous year.

The overall increase in killed and seriously injured (corrected) means that the RLTS target of a continual reduction in the number of killed and injured on the regions roads has not been met.

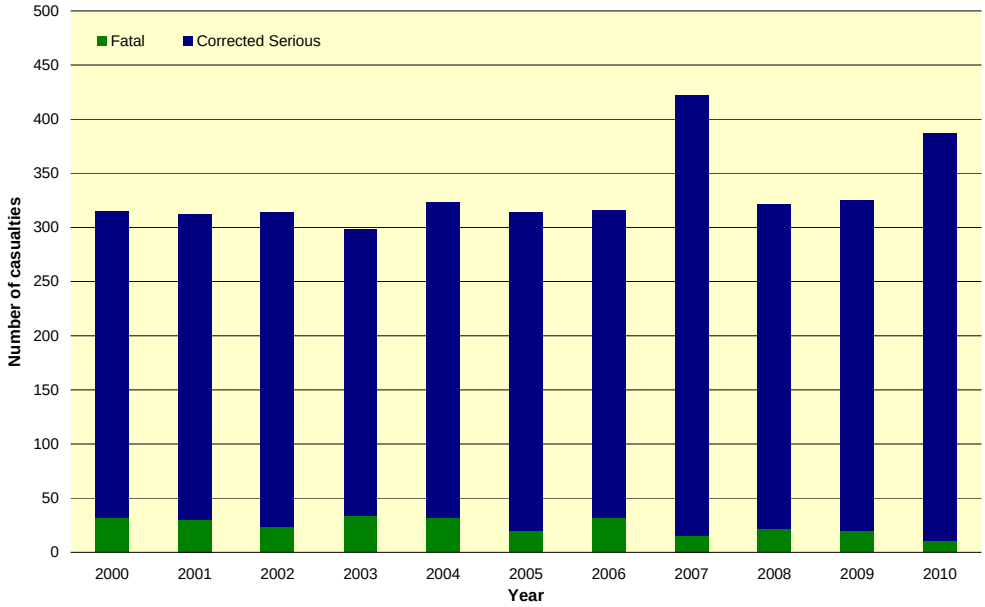

Figure 6.2: Total fatal and corrected serious injury casualties, and crash reporting rate (%). Calendar year. Sources: Crash Analysis System; New Zealand Transport Agency

6.3 Key outcome summary

The performance indicators for this key outcome show that the regions road crash fatalities, which are rarely attributable to road network deficiencies, have decreased over the last decade, whereas serious injury casualties have increased. These changes have resulted in an overall increase in killed and seriously injured (corrected) since the beginning of the decade.

The RLTS target of no road crash fatalities attributable to roading network deficiencies has been met over the last year but the RLTS target of a continual reduction in the number of killed and seriously injured on the regions roads has not been met.

Therefore, limited progress has been made towards the key outcome of improving regional road safety, with casualty numbers remaining high and a real issue for the region. If road safety is to be significantly improved, more intervention and cross-agency effort is required. Vehicle safety improvements, enforcement, safety campaigns, education programmes, and proactive road safety engineering can all contribute to reducing casualty numbers.

7. Improved land use and transport integration

7.1 Land use and transport integration

Target: All new subdivisions and developments include provision for walking, cycling and public transport, as appropriate

There are no specific performance indicators that provide adequate information to measure progress towards this key outcome and its related target. However, it is known that compact urban form is associated with more efficient and sustainable infrastructure and travel, whereas urban sprawl often leads to an increased dependence on private vehicle use.

Until data becomes available and an adequate indicator(s) is developed, information on the density of new subdivisions in the region is presented in this chapter to contribute to our understanding of the urban form in the region. The maps in Figures 7.1 and 7.2 show the density and location of new subdivisions, less than eight hectares in size, in the western and eastern (Wairarapa) parts of the region respectively, from 2002 and 2011.

In the western part of the region, it is evident that growth has occurred in all regional centres. A higher density of new subdivisions now exists, particularly in Paraparaumu, Raumati, Porirua East, North Wellington and Riverstone Terraces (in Upper Hutt). Growth in Wellington city has also been strong.

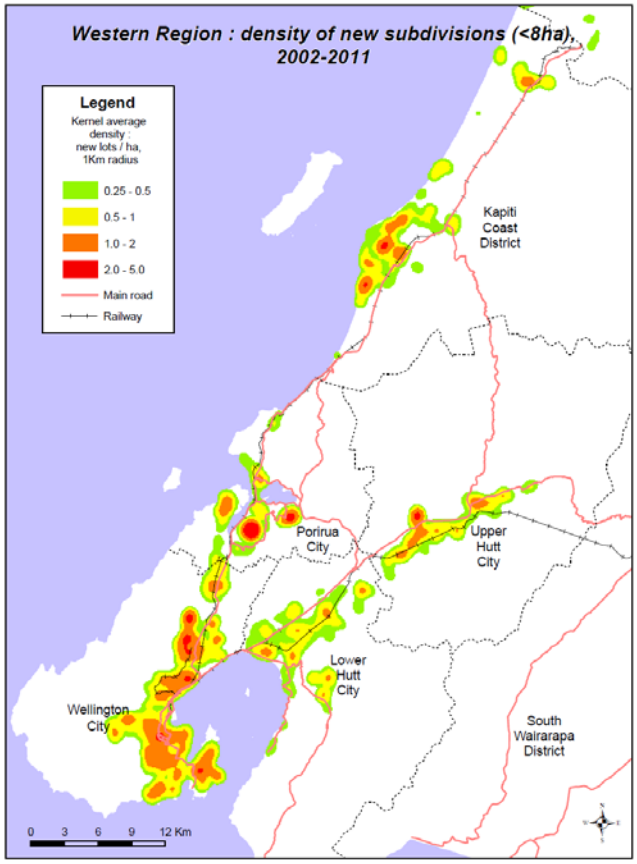

Figure 7.1: Density of new subdivisions <8 Ha in area, western Wellington region, 2002 to 2011. Source: GWRC

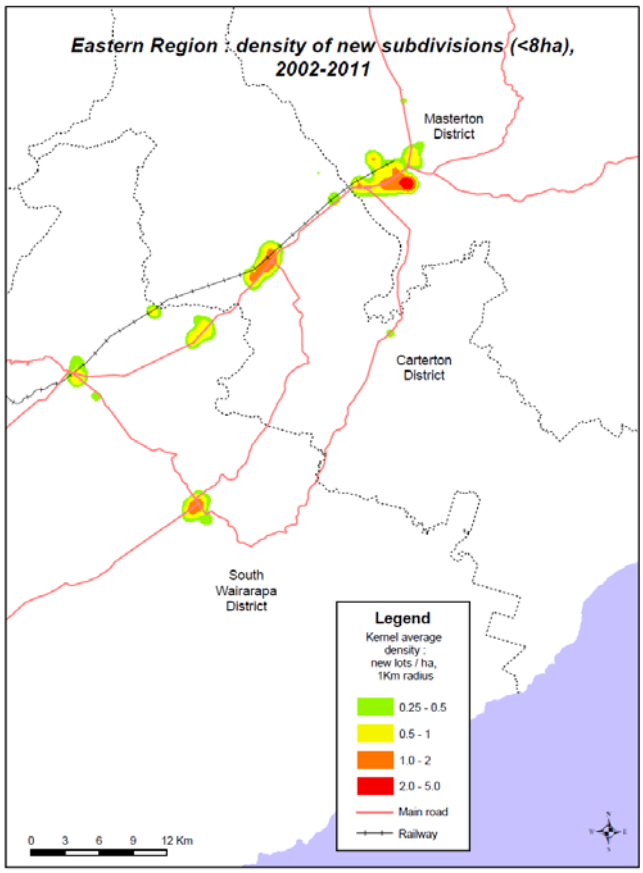

Figure 7.2: Density of new subdivisions <8 Ha in area, eastern Wellington region (Wairarapa), 2002 to 2011. Source: GWRC

In the eastern (Wairarapa) part of the region, a higher density of new subdivisions exists to the east and south of Masterton. There has also been reasonable growth in Carterton and Martinborough townships.

The majority of new subdivisions in the region are occurring around existing regional centres, which should enable a degree of access to walking, cycling and public transport networks. Further to this, a review[19] of territorial authority procedures in 2008 identified that there is some consideration of active modes and public transport in all district plan policies. These findings suggest that consideration of the RLTS target is occurring when new subdivisions and developments are established.

7.2 Key outcome summary

The RLTS seeks to improve the region's land use and transport integration, as this should bring benefits in the form of sustainable economic and regional development and improved transport network access and reliability. However, there are currently no specific performance indicators that provide adequate information to measure progress towards this key outcome and its related target.

[19] Greater Wellington Regional Council. (2008). *Land Use & Transport Integration: Assessment Report*, p 16.

The information available on the density and location of new subdivisions in the region shows that this growth is occurring around existing regional centres. The location of new subdivisions will enhance the compact urban form of regional centres which is associated with more efficient and sustainable infrastructure and travel, and should enable a degree of access to walking, cycling and public transport networks.

8. Improved regional freight efficiency

8.1 Journey times for road freight between key destinations

Target: Improved road journey times for freight traffic between key destinations

NZTA travel time survey data was used to create route travel times by combining sections of the regional routes described in Chapter 5 (Reduced severe road congestion). Representative routes for heavy goods movement are shown in Figure 8.1 and include:

- Route 1: Seaview - Porirua via SH58
- Route 2: Seaview - Porirua via SH1 and SH2
- Route 3: Seaview – CentrePort

These routes represent typical road freight movements across the region.

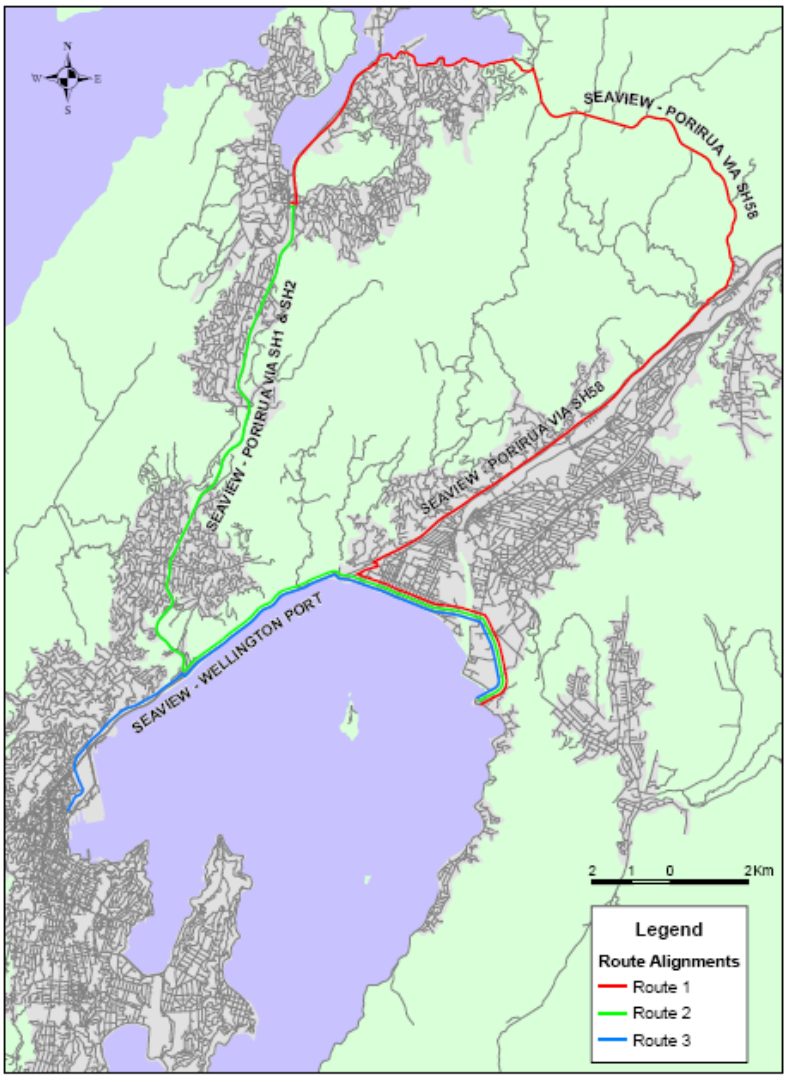

Figure 8.1: Representative regional road freight routes. Sources: New Zealand Transport Agency; GWRC

Figures 8.2 to 8.4 show the all day average travel time in minutes for routes 1 to 3 respectively. In 2011 the all day average time taken to travel between Porirua and Seaview (eastbound) via State Highway 58 was 34.52 minutes.

The all day average time for this route has decreased over time, and in 2011 was the lowest average travel time recorded since measurements began. While travel time during the AM peak is still relatively high, over the last year there was a large decrease in travel time during the PM peak which accounts for the majority of the decrease observed in all day average travel time.

All day average travel time on the westbound route had gradually been increasing, but has decreased over the last year. The all day average travel time on the westbound route was 32.59 minutes in 2011, a decrease from 35.34 minutes in 2010. Even though the travel time during the PM peak was found to increase slightly over the last year, a decrease of over nine minutes to the route AM peak travel time has resulted in the observed decrease in all day average travel time.

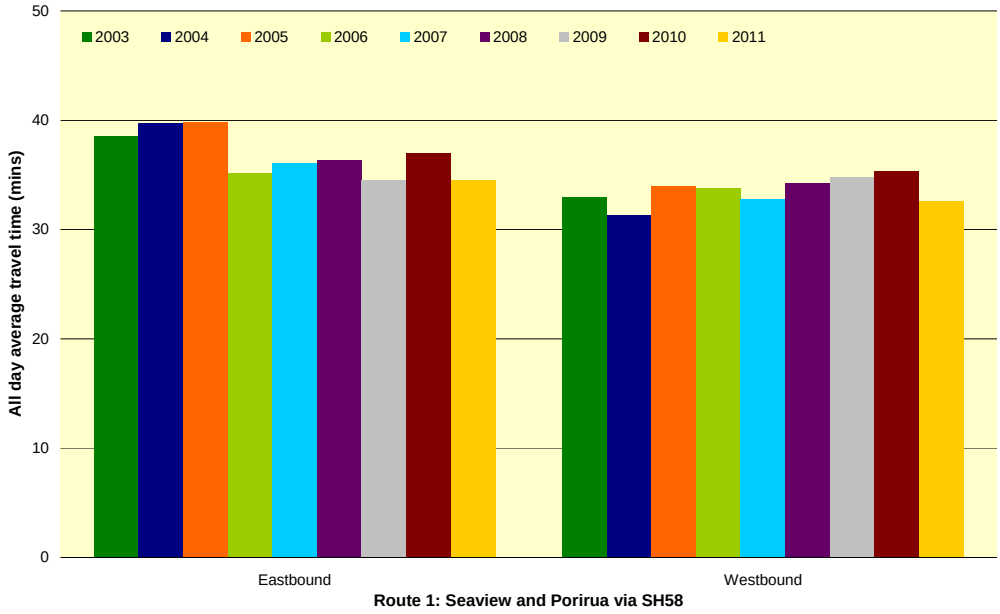

Figure 8.2: All day average travel time (mins) on road freight route 1, March. Sources: New Zealand Transport Agency; GWRC

Travel between the same locations (Seaview and Porirua) via State Highways 1 and 2 have consistently had a lower all day average travel time than travel via State Highway 58, which is not surprising considering the shorter distance. However, over time there has been a gradual increase in all day travel time in the eastbound and westbound directions for this route, which is due to steady increases in travel times during the AM peak. This has resulted in the difference in eastbound travel time between route 1 and route 2 gradually decreasing.

For example, eastbound travel via State Highway 58 was around 17 minutes slower than travel via State Highways 1 and 2 in 2003, but in 2011 this had decreased to less than 10 minutes. In comparison, there has been little change over time in the westbound direction.

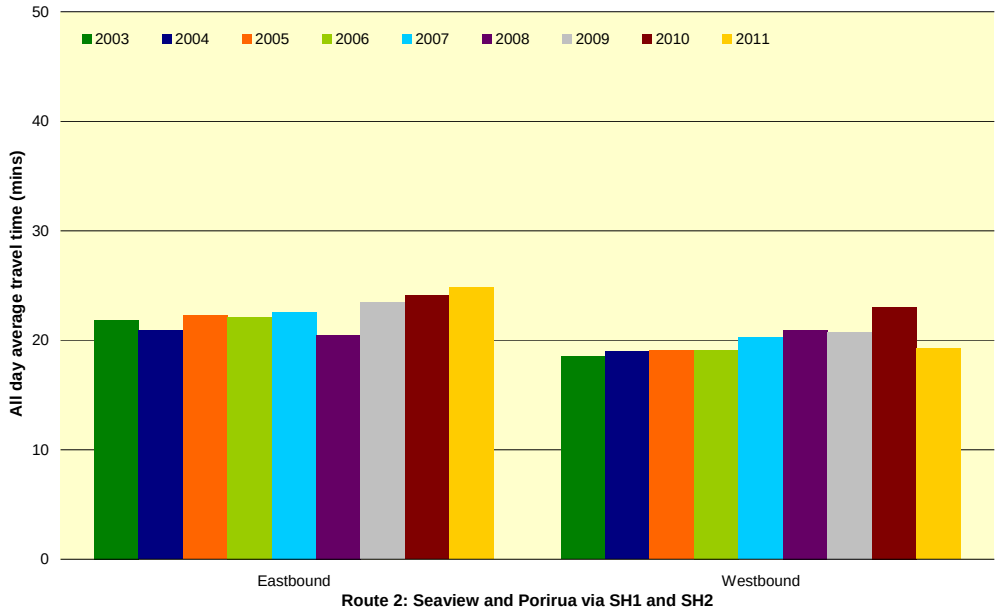

Figure 8.3: All day average travel time (mins) on road freight route 2, March. Sources: New Zealand Transport Agency; GWRC

The all day average travel time between Seaview and CentrePort was 17 minutes in both the eastbound and westbound directions in 2011. There has been a gradual increase in all day travel time both eastbound and westbound since the surveys began in 2003, but travel times have remained relatively static over the last few years (other than a spike in the westbound direction in 2010).

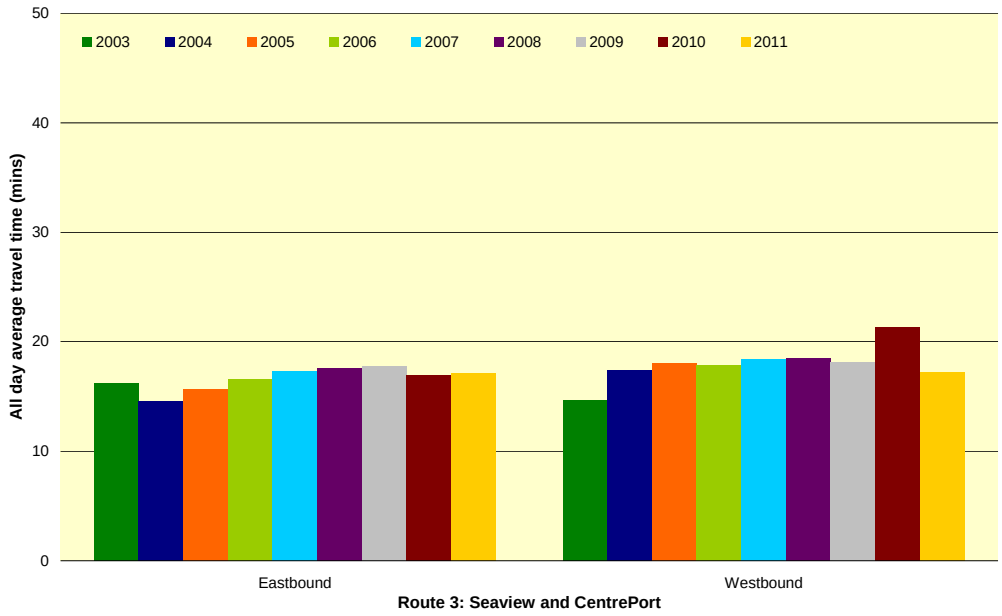

Figure 8.4: All day average travel time (mins) on road freight route 3, March. Sources: New Zealand Transport Agency; GWRC

8.2 Key outcome summary

As heavy vehicle traffic is closely related to economic activity, it is important that freight can be efficiently moved between key destinations in the region. The all day average travel times have decreased in the eastbound direction on the Seaview and Porirua via SH58 freight route, and are relatively unchanged in the westbound direction. However, all day average travel times on the other two freight routes have increased.

These increases tend to be due to large increases in travel times during the AM peak, whereas the PM peak and interpeak travel times have either decreased or remained relatively unchanged.

The overall increases in travel times on two of the three key freight routes across the region suggests that the all day average efficiency of freight movement across the region has decreased over time. This means that little progress has been made towards the RLTS key outcome and stretch target.

A limitation of the current indicators is that they do not show what time of day freight traffic tends to move around the region. If freight traffic is increasingly avoiding travel during the AM peak, then it is possible that more progress towards this RLTS outcome would have been achieved.

9. RLTS implementation

9.1 Overall progress achieved in 2010/11

Highlights of the 2010/11 year include:

- approximately 35.4 million passenger trips by public transport
- approximately 1.1 million bus, rail and ferry services funded
- completed the Mackays Crossing to Waikanae double tracking project (February 2011)
- completed the Kaiwharawhara Throat track upgrades (July 2010)
- completion of the rail station Matangi compliance upgrades (February 2011)
- first 4-car Matangi train into regular revenue service (March 2011)
- signed rail asset transfer agreement with KiwiRail (June 2011)
- introduction of the new Total Mobility electronic system (September 2010)
- completed bus service reviews for Porirua and Kapiti (February 2011)
- introduction of Real Time Information on Go Wellington bus services (March 2011)
- completed the Thorndon Overbridge safety improvements (May 2011)
- 14 schools enrolled in the school travel plan programme with 48 now participating
- partnership formalised with Greater Christchurch to extend Let's Carpool to Canterbury region (June 2011)
- established regional bus drivers/cyclists share the road awareness workshops
- facilitated up-skilling in cyclist skills training for Police Education Officers, teachers and community members
- completed the annual workplace active commute programme Active a2b
- introduction of *Map My Journey*, *Walk to School Day* Guide and *Be Safe – Be Seen road* safety campaign
- introduction of folding bikes and discount vouchers following the new bikes on trains policy
- adoption of the Wellington Regional Land Transport Strategy 2010-40 (September 2010)
- adoption of the updated Wairarapa Corridor Plan (September 2010)
- adoption of the Regional Freight Plan (June 2011)
- completed Port of Wellington Access Strategy (May 2011)

9.2 Major 2011/12 actions programmed

Major programmes and projects anticipated to **be completed** in 2011/12 include:

- continue delivery of all 48 (two-car units) new Matangi rail rolling stock vehicles (15 two-car units arrived by end of 2010/11)
- completion of the Ganz Mavag refurbishment prototype and testing project
- completion of public transport service reviews for Wellington City, Otaki and Wairarapa
- completion of Rugby World Cup public transport planning and provision of special services
- completion of Terrace Tunnel safety upgrades
- adoption of the updated Hutt Corridor Plan
- adoption of the Regional Public Transport Plan 2011–21
- adoption of the 2012–15 Regional Land Transport Programme

Major programmes anticipated to **commence or continue** in 2011/12 include:

- continue rollout of Real Time Information across the region
- continue support for bus priority measures in Wellington CBD
- continue Transmission Gully preparation activities
- commence a review of the Metlink fare structure
- continue the development of the Mackays to Peka Peka Expressway project
- continue the development of the Basin Reserve, Mount Victoria Tunnel duplication and Ruahine Street project
- continue the development of the Ngauranga to Aotea Quay project
- continue the development of the Peka Peka to Otaki project
- continue the Rimutaka Hill (Muldoon's Corner) easing project
- continue the Last Choice and Mind the Gap road safety campaigns
- continue quarterly Regional Road Safety Coordinator Forums
- continue cyclist skills training programmes in partnership with NZ Police and Cycle Aware Network
- continue bus drivers/cyclists workshops with Cycling Advocates' Network and bus operators
- continuing the Wellington Region Travel Behaviour Change Travel Plan Programme
- continuing the Cycling and Walking Journey Planner and Let's Carpool website
- coordinate *Spring to the Street* commute challege
- continue *Movin' March* in partnership with territorial authorities
- continue investigation of electronic ticketing for passenger rail in the Wellington region

Glossary

AM	Morning
AMR	Annual Monitoring Report
CAS	Crash Analysis System
CBD	Central business district
CO_2	Carbon dioxide
FAR	Funding assistance rates
GPS	Government Policy Statement
GWRC	Greater Wellington Regional Council
IP	Interpeak
km	Kilometres
mins	Minutes
NLTP	National Land Transport Programme
NZTA	New Zealand Transport Agency
PM	Afternoon
Police	New Zealand Police
RHS	Right hand side
RLTS	Regional Land Transport Strategy
RTC	Regional Transport Committee
SH	State highway
TMIF	Transport Monitoring Indicator Framework