greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

2013/14 Annual Monitoring Report on the Regional Land Transport Strategy

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Executive Summary

This report records 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.

2013/14 Regional land transport report card

The report card below sets out the Wellington RLTS key outcomes associated 2020 stretch targets and the 2013/14 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: 2013/14 progress against Wellington RLTS 2020 targets for each key outcome

Key outcome	2020 Stretch target	2013/14 result	Previous result	Trend
Increased peak period public transport mode share	Public transport accounts for at least 23 million peak period trips per annum	17.9 million in 2013/14 financial year	17.6 million in 2012/13 financial year	✓
	Public transport accounts for at least 21% of all region-wide journey to work trips	16.7% in 2013/14 financial year	16.9% in 2006 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 2009-13	27% of all trips were made by active modes in 2008-12	✖
	Active modes account for at least 15% of region-wide journey to work trips	14.6% in 2013 census	13.2% in 2006 census	✓
Reduced greenhouse gas emissions	Transport generated CO_2 emissions will be maintained below year 2001 levels (1,072 kilotonnes in 2001)	1,064 kilotonnes in 2013/14 financial year	1,061 kilotonnes in 2012/13 financial year	✓
Reduced severe road congestion	Average congestion on selected roads will remain below 2003 levels (19.8 seconds) despite traffic growth	27.0 seconds in March 2014	22.3 seconds in March 2013	✖
Improved regional road safety	There are no road crash fatalities attributable to roading network deficiencies	1 fatality attributable to road factors in 2013 calendar year	0 fatalities attributable to road factors in 2012 calendar year	✖
	Continuous reduction in the number of killed and seriously injured on the region's roads	133 killed and seriously injured in 2013 calendar year	201 killed and seriously injured in 2012 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	21.2 minutes interpeak; 30.7 minutes peak average, March 2014	21.2 minutes interpeak; 26.6 minutes peak average, March 2013	-

✓ positive – neutral ✖ 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 2013/14 year including:

Strategy

- development of a first draft of the policy framework for the Wellington Regional Land Transport Plan
- completion of the Wellington Public Transport Spine Study (March 2014)
- adoption of the Regional Public Transport Plan (PT Plan) in June 2014 (including the 2013 update to the Regional Rail Plan, the Wellington City bus review and the decision on the future bus fleet for Wellington City)

Public transport

- 35.8 million passenger trips, a 1.8% increase over 2012/13
- completion of the real time information project with the introduction of real time information on rail in October 2013, installation of real time information display signs on Wellington's Golden Mile
- completion of the infrastructure renewal programme for the year. Rail improvements included the refurbishment of Waterloo Station roof, repairs to a number of station buildings, completion of a concept design for Upper Hutt station, the installation of a region wide rail fibre optic network and commencement of monitoring at the new CCTV rail monitoring centre, and development of additional car parks at Porirua Station. Bus improvements included installation of 6 new bus shelters and 15 replacement bus shelters, the roll-out of a new anti-graffiti laminate on bus shelter glass panels, and commencement of the upgrade of the Bunny Street bus interchange in Hutt City.

Travel demand management, walking and cycling

- two new schools enrolled in the school travel plan programme with 72 schools now participating
- continued to roll out scooter safety training to schools
- expanded Let's Carpool nationally with Hawkes Bay now joining
- completed and published tests of new bike lights and handed out reflective gear at requests from public and cycling events

Major programmes and projects which are scheduled to be commenced or completed in the 2014/15 financial year are set out in Section 9 of this report.

1. Introduction

1.1 Statutory context

Land Transport Management Act 2013

The Land Transport Management Act 2003 (amended in 2013) requires the Regional Transport Committee (RTC) to prepare and monitor a Regional Land Transport Plan (RLTP). The RLTP sets the strategic direction for a region's land transport network and replaces the Regional Land Transport Strategy (RLTS). The monitoring requirements for the RLTP are to be set out the in the plan itself.

At the time of writing this Annual Monitoring Report (AMR) the replacement RLTP has not been adopted and therefore we are still reporting on the RLTS. The AMR reports on the key outcomes and on additional information available due to the publication of results from the census held in 2013. This will be the last year for the AMR in this form, next year a new RLTP with new indictors will have been adopted.

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 RLTS 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.

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

1.3 Content and structure

This report presents information on a range of indicators both within the region and across its boundaries. If data are available, the report tracks the current condition (for the 2013/14 year) and monitors trends over time. This information is used to provide a picture of regional performance from a transport perspective.

Where possible, we benchmark 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 2013/14 Annual Monitoring Report (AMR)

This AMR reports our progress on the key and related outcomes identified in the Wellington RLTS 2010–40. Progress against each outcome area and associated target(s) is measured with a series of indicators. The data represented by the indicator are 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 2012-15 are described in Section 9 RLTS implementation.

The appendix in this report provides updates to those indicators which use census data provided by Statistics New Zealand, with the 2013 census data being added in.

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 are replaced retrospectively. Therefore, data presented in previous reports may not be entirely comparable to this report.

All reported data relate to the financial year ending at 30 June 2014 and are 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.

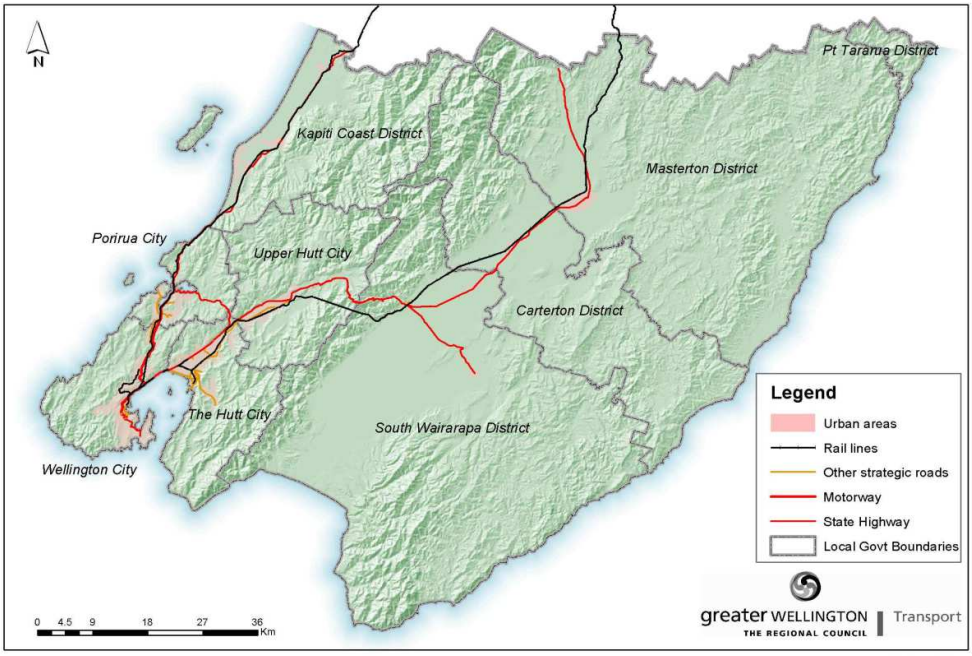

Figure 1.1: Wellington's regional transport network

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. Passenger Transport Outcomes

Introduction

This section discusses progress towards the RLTS passenger transport outcomes.

The following key outcome for passenger transport is sought for the region's land transport network:

- **Increased peak period public transport mode share**

The performance indicators associated with this key outcome are:

  – Peak trips by public transport

  – Mode of journey to work: public transport

The related outcomes and associated performance indicators for passenger transport are:

- **Increased off-peak period public transport mode share**

  – Off-peak trips by public transport

- **Increased public transport accessibility for all, including the transport disadvantaged**

  – Wheelchair accessible public transport services

  – Population proximity to public transport

- **Reduced public transport journey times compared to travel by private car**

  – Journey time comparison

- **Increased public transport reliability**

  – Reliability of public transport services

The terms 'passenger transport' and 'public transport' are often used interchangeably. However, when defined, they do have slightly different meanings. Passenger transport has a wider meaning and covers both scheduled public transport services and other passenger services (e.g. taxis and the Total Mobility scheme).

The term 'passenger transport' is consistently used throughout the RLTS and Passenger Transport Plan. However as some indicators within the AMR rely on data obtained in relation to scheduled public transport services only, the term 'public transport' is used where appropriate.

Key outcome

2.1 Increased peak period public transport mode share

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

Peak trips by public transport

Figure 2.1 presents the annual number of public transport 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. In 2014 (the 12 month period to end June 2014), 17.9 million peak period trips were made by public transport, with bus trips accounting for 57.8% of peak trips. Rail accounted for 41.7% of peak trips, and ferry trips make up 0.5%. The total number of peak period public transport trips is below the scheduled RLTS target for 2014 of 19.6 million trips, which is based on uniform growth between 2010 and 2020.

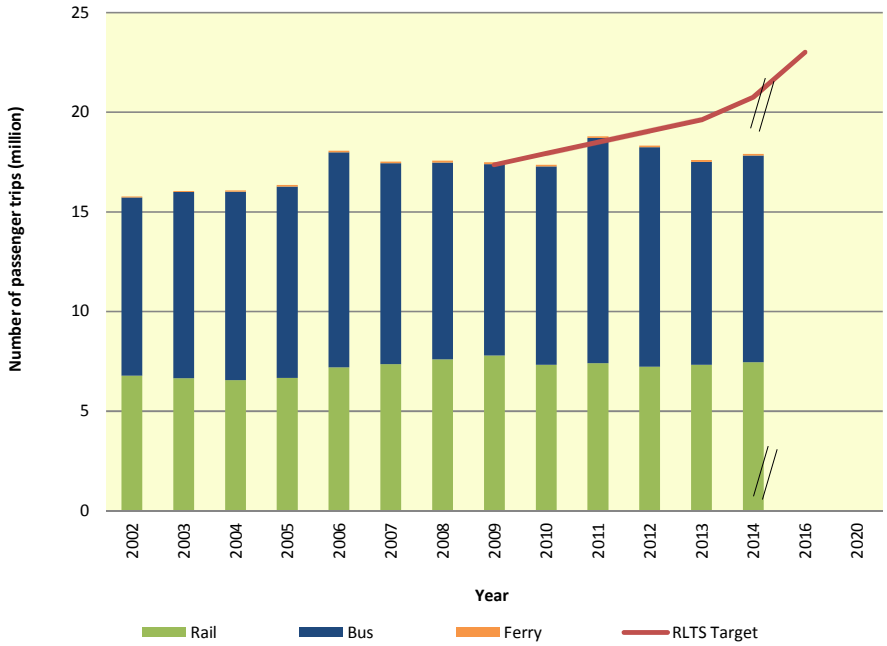

Figure 2.1: Public transport patronage: number of passenger trips by mode, combined peak periods

Source: GWRC

Since monitoring began in 2002, bus trips have accounted for the highest proportion of peak period public transport trips. Peak bus patronage increased until 2011 but has since been on a downward trend, falling from 11.3 million peak period passenger trips in 2011 to 10.4 million in 2014, although there was a small increase of 1.9% from the 2013 count.

The number of peak period public transport trips by train increased between 2002 and 2009, peaking at 7.8 million trips, but has since fallen back and was 7.4 million trips in 2014, up 1.6% from 7.3 million in 2013.

Ferry passenger trips, while small in number compared to peak period bus and train trips, have been relatively steady over the period shown. The number of trips in 2014 was 85,000, down 1.8% from 2013.

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

Mode of journey to work: public transport

Data from the 2013 New Zealand census showed that 16.65% of journey to work trips across the region used public transport[1] as the 'main means of travel to work' (Figure 2.2). This shows that this share had fallen slightly from 16.88% in 2006, and was the RLTS target of 19% for 2013. In 2013, the 16.65% public transport mode share comprised of nearly 7% for rail and for bus the share was slightly over 9%.

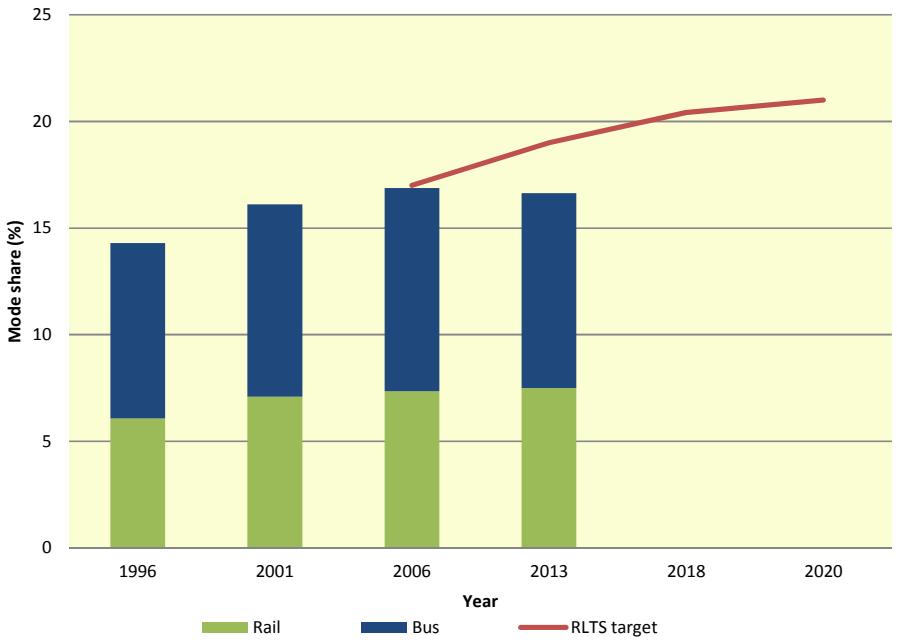

Figure 2.2: Public transport mode share of journey to work trips (%)

Source: Statistics New Zealand

Although the share of public transport trips fell slightly, the number of journey to work trips made by public transport increased by about 1,100 trips between the 2006 and 2013 census. This followed an increase of around 4,400 trips between the 2001 and 2006 census. A substantial increase in mode share of public transport is required to achieve the RLTS target of 21% by 2020.

As shown in Figure 2.3, between 1996 and 2013, the general trend in the public transport mode share of journey to work trips was upwards in most territorial authority areas in the Wellington region, with the exception of Porirua, which had a lower share in 2013 than in 1996. Between 2006 and 2013, the only notable decline was in Wellington City, with a marginal decline also in Porirua. These declines accounted for the small net decline for the region. The other territorial authority areas saw the share increase between 2006 and 2013. Public transport mode share is highest in Wellington City and lowest in Wairarapa. The strongest growth between 1996 and 2013 was in Kapiti, followed by Hutt City.

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

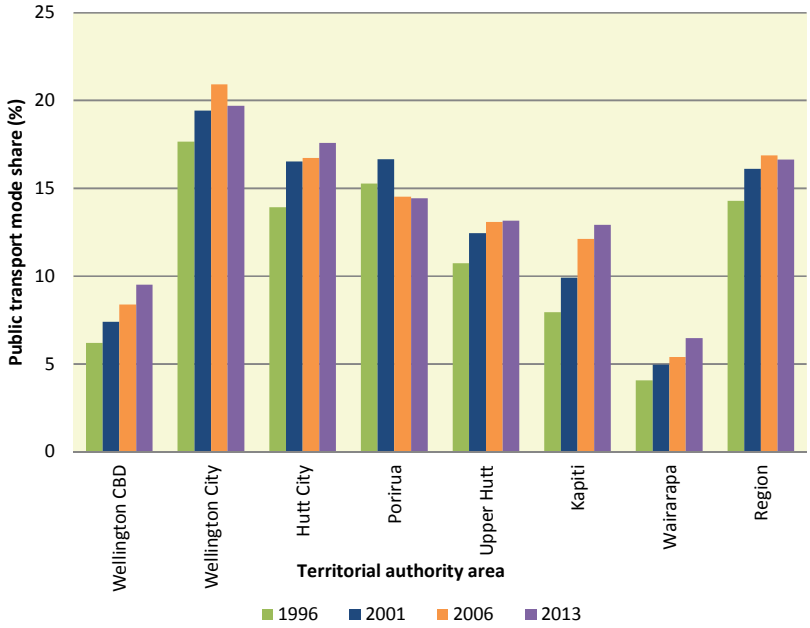

Figure 2.3: Public transport mode share of journey to work trips by territorial authority area and Wellington CBD (%)

Source: Statistics New Zealand

Key outcome summary

The performance indicators for this key outcome show that, public transport use and mode share in the region in the peak period generally increased between 2002 and 2011, peaking at 18.8 million trips. The rising trend in total trips turned around in the subsequent three years, falling in 2012 and 2013 before showing a small recovery in 2014 to 17.9 million trips.

Bus trips have consistently accounted for 55% to 60% of total public transport trips during the peak periods. The falling total between 2011 and 2013 is predominantly accounted for by a reduction in bus trips. Both rail and bus saw a marginal increase in the last year.

Progress has been made towards the RLTS target of 23 million peak period trips per annum, although achieving the 2020 target will be a significant challenge as a further 28.5% increase on 2014 patronage levels is required.

The 2013 census results show that the 2013 share of public transport in journeys to work was down from the 2006 share, just slightly, at under 17%, while the RLTS target was 19%. The gap has therefore grown between actual and target mode share for public transport.

The Ministry of Transport's Household Travel Survey[2] began in 2003 and collects household and personal travel information to help monitor the travel patterns of New Zealanders. The results are used to estimate the mode shares of journeys to work (for full-time workers aged 16+, journeys starting between 6am and 9.30am). Although it uses a different methodology to the census, the

[2] For more information on the survey see *www.transport.govt.nz/research/travelsurvey/*

2009-13 survey found that 20% of journeys to work in the Wellington region used public transport.[3] This was the same as in the 2003-07 survey, and down from the 2008-12 share of 23%.

Over the last year there were 17.9 million 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.

Public transport mode share has increased since the beginning of the decade but there has been a decline in peak patronage over the last three years. Despite this, progress has been made towards this RLTS key outcome. However, achieving the 2020 targets for this outcome pose real challenges to the region.

Related outcomes

2.2 Increased off-peak period public transport mode share

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

Off-peak trips by public transport

Figure 2.4 presents the annual number of public transport trips taken by train, bus and ferry during the off-peak period; and the RLTS target of 23 million trips per annum by 2020. In the 12 months to end June 2014, 17.9 million off-peak trips were made by public transport. Bus trips accounted for 76.0% of off-peak trips, with rail trips accounting for 23.4%, and ferry trips accounting for 0.5%. The total number of off-peak public transport trips is below the scheduled RLTS target for 2014 of 19.8 million trips.

Over the last year, total public transport trips during the off-peak period have increased by around 346,400 trips (2.0%). This absolute increase was split relatively evenly between increases in bus and rail trips.

After an increase in the number of off-peak public transport trips between 2002 and 2009, reaching 18.0 million trips in 2009, there was a decline to 16.6 million in 2011. There has been recovery in subsequent years, reaching 17.9 million trips in 2014, which is equal to the number of public transport trips in the peak periods. The RLTS target for 2020 is 23 million trips, so an increase of 28.5% from 2014 levels will be required if the target is to be achieved by 2020.

[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.

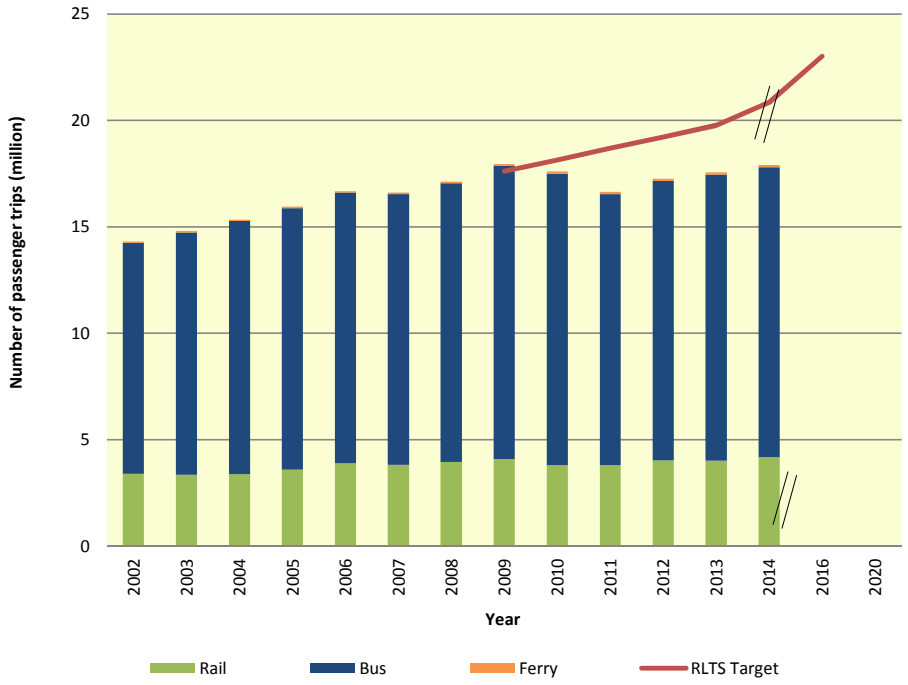

Figure 2.4: Public transport patronage: number of passenger trips by mode, off-peak period

Source: GWRC

Related outcome summary

The performance indicator for this related outcome shows that limited progress has been made toward the 2020 RLTS target of public transport accounting for at least 23 million off-peak period trips per annum. If the RLTS target is to be achieved an increase of 28.5% in off-peak public transport trips is required compared to 2014 levels.

Off-peak travel in the region is most likely to be by bus, accounting for 76% of off-peak trips. From the low point in 2011, the number of off-peak bus trips has increased each year in each of the last three years. Public transport trips by train have increased over the last year, but are still less likely to be used for trips during the off-peak than peak.

2.3 Improved public transport accessibility for all, including the transport disadvantaged

Target: 90% of public transport services are guaranteed to be wheelchair accessible

Wheelchair accessible public transport services

The term 'wheelchair accessible' is defined as 'vehicle accessible by wheelchair'. A vehicle in this indicator includes: cable car, bus, ferry and train unit.[4] Figure 2.5 shows the total percentage of public transport vehicles

[4] A 'train unit' means a two car unit (composed of two cars). If one of the two cars is accessible by wheelchair, then this two-car unit is classified as vehicle accessible by wheelchair.

accessible by wheelchair across the region and the 2020 target of 90% of public transport vehicles being accessible by wheelchair.

In 2014, 78% of public transport services were wheelchair accessible which is above the scheduled RLTS target for the year of 73%. The percentage of wheelchair accessible public transport services has increased over time, with a three percentage point increase observed over the last year. The increase over the last year is due to an increase in the percentage of wheelchair accessible bus services. The percentage of wheelchair accessible bus services increased from 71% to 75%. Train services have now been fully wheelchair accessible for three years.

Figure 2.5: Accessibility of public transport vehicles by wheelchair (%)

Source: GWRC

Target: 75% of people in the region live or work within 400 metres and 90% within 800 metres of a public transport stop with service throughout the day

Population proximity to public transport services

Available data cannot currently provide a reliable picture of where people live and work. Others measures are now used we have substituted an alternate measure rather than report nothing. We are able to measure whether people live within 500m of a public transport stop based on the 2013 census population data and 2013 address point GIS file. Census data and address files are also available for 2001 and 2006.

Figure 2.6 shows the percentage of the population that live within 500m of a public transport stop. Distance is measured along the walking network.

In 2013, 82% of the region's population lived within 500m of a public transport stop.

There has been little change in the percentage of the population living within 500m of a public transport stop. From 2001 to 2013, this percentage has dropped slightly from 85% to 82%. These results suggest that it is likely that progress has not been made towards this substitute RLTS target for this related outcome.

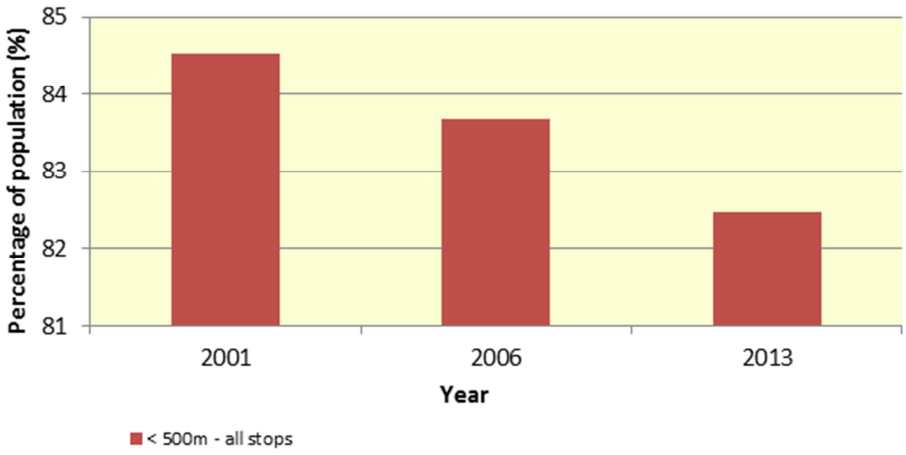

Figure 2.6: Estimated proportion of the population living within 500m of a public transport stop

Sources: GWRC; Statistics New Zealand.

Related outcome summary

The performance indicators for this outcome suggest that over the last couple of years, progress has been made against this related outcome of improved public transport accessibility for all in regards to the transport disadvantaged. The increasing trend in wheelchair accessible public transport services despite the decrease in proportion of the population living within 500m of a public transport stop indicate stable public transport accessibility.

Progress has been made towards the RLTS target of 90% of public transport services are guaranteed to be wheelchair accessible. Currently 78% of public transport services are wheelchair accessible, which is above the scheduled RLTS target for 2014. If these gains can be maintained this target is on track to be achieved by 2020.

Information we have shows that the percentage of the population living within 500m of a public transport stop has dropped to around 82% in 2013, but this does not necessarily indicate that the percentage living within 400m and 800m has also dropped. This information taken on its own suggests that progress has not been made towards the substitute 2020 RLTS target.

2.4 Reduced public transport journey times compared to travel by private car

Target: Continual reduction of peak period public transport journey times relative to a similar journey undertaken by a private car for key selected corridors

Journey time comparison

This indicator is a comparison of the car travel times from the NZ Transport Agency travel time surveys (March) and public transport journey times from timetables. The two key regional routes that are compared are described below:

- Route 1 southbound (SB): Paraparaumu – Wellington Airport
- Route 1 northbound (NB): Wellington Airport – Paraparaumu
- Route 2 southbound (SB): Upper Hutt – Wellington Airport
- Route 2 northbound (NB): Wellington Airport – Upper Hutt

The values given are the difference in minutes between using public transport and travelling by private car. A positive value means the journey takes longer by public transport than by private car, and the larger the value the greater the difference in travel time by public transport in comparison to private car. Figure 2.7 shows the difference in average travel time for both routes across three periods of the day.

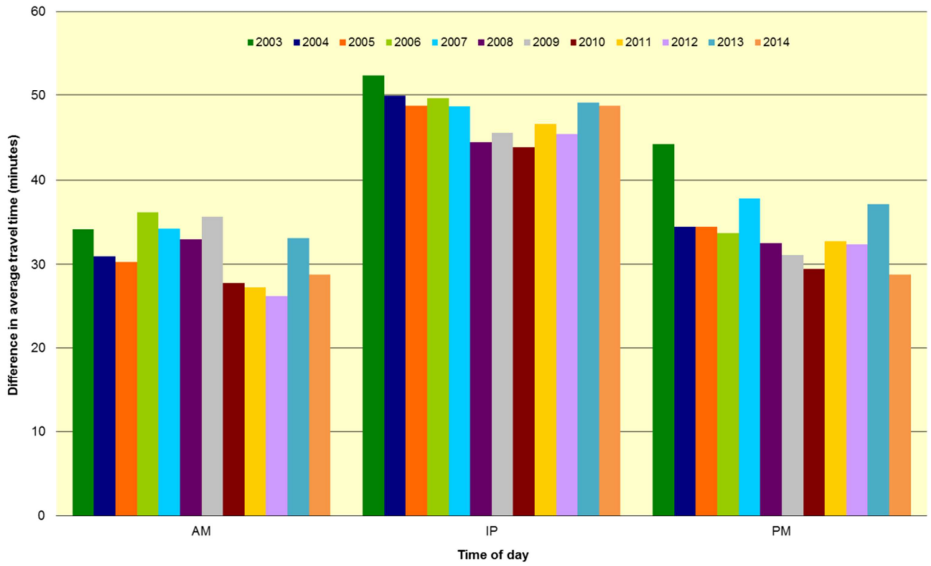

Figure 2.7: Comparison of average travel times (minutes) by public transport and by car on key routes

Sources: NZ Transport Agency; GWRC

In the AM peak, the comparative travel time in the northbound direction, on both routes, is greater than the southbound direction due to the direction of travel of AM peak passengers (towards Wellington City). This is reversed during the PM peak.

Over time, public transport travel time has become more competitive compared to travel by car across all periods of the day. Although there has been an increase during the interpeak and AM peak since 2012, the difference in travel time between public transport and private car has decreased over the past year, particularly during the AM and PM peak.

In 2014, it took 29 minutes longer to travel by public transport than by private car during the AM peak, 49 minutes longer during the interpeak and 29 minutes longer during the PM peak. Over the last year the difference in travel time between public transport and private car has decreased for the two peak periods of the day, with a decrease of three minutes during both the AM peak, and an eight minute decrease in the PM peak. These decreases are a result of increased average peak car travel time at each period of the day since 2013.

Related outcome summary

Over the last year progress has been made towards this related outcome, but continued progress is required to achieve the RLTS target of a continual reduction of peak period public transport journey times relative to a similar journey undertaken by a private car.

Since measurements began, the difference in travel time between public transport and private car on selected routes has decreased, but average public transport travel times on these routes are 29 minutes slower than by private car during both the AM and PM peak periods. Over the last year it is an increase in travel time by private car as well as a decrease in public transport travel time that has resulted in the observed decreases.

Based on overall journey time, public transport remains relatively uncompetitive compared to the private car. Making public transport travel times comparable to travel times by private car remains a significant challenge for the region.

2.5 Increased public transport reliability

Target: Continual improvement to bus and train services running to time

Reliability of public transport services

Figure 2.8 shows the percentage of bus and passenger rail services in the region which run to time. Bus reliability is shown on the right axis, while rail reliability is shown on the left axis.

A bus service is defined as being ‘on time’ when it runs within 10 minutes of scheduled time at departure, and its destination. A train which departs from or arrives at Wellington Railway Station within five minutes of scheduled time is defined as ‘on time’. These data are currently self-reported by public transport operators.

Averaged across the 2013/14 financial year, 99.2% of bus services operated within ten minutes of scheduled time, and 91.5% of rail services arrived or departed Wellington Railway Station within five minutes of scheduled time. In general, since July 2011 there have been dips and peaks in the percentage of rail services running within five minutes of scheduled time.

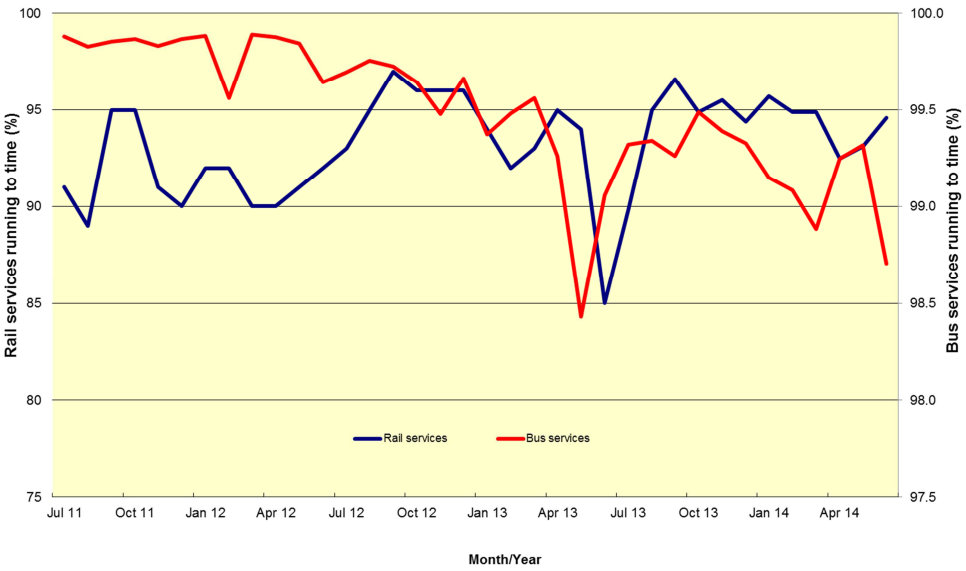

Figure 2.8: Bus and rail services running to time (%)

Source: Public transport operators; GWRC

Related outcome summary

This performance indicator shows that the vast majority of bus services operate within ten minutes of their scheduled time and this has stayed relatively constant from 2011 to 2014. Train service reliability has been fluctuating between 85% and 97% over the past three years, but shows a slow general trend upwards. May and June 2013 were particularly poor months for both bus and rail service reliability. Bus reliability has also dropped in June 2014. Although there is still room for improvement, progress has been made towards the RLTS target of a continual increase in rail services running to time, but the same cannot be said for buses which have slightly decreased in reliability.

3. Active Mode Outcomes

Introduction

This section discusses progress towards the RLTS active mode outcomes. The following key outcome for active modes is sought for the region's land transport network:

- **Increased mode share for pedestrians and cyclists**

The performance indicators associated with this key outcome are:

  – Overall active mode share

  – Mode of journey to work: active modes

There are also two related outcomes for active modes. These are shown below, along with the associated performance indicators:

- **Improved level of service for pedestrians and cyclists**
  – Perceptions of the level of service for pedestrians
  – Perceptions of the level of service for cyclists
- **Increased safety for pedestrians and cyclists**
  – Pedestrian casualties
  – Cyclist casualties

Key outcome

3.1 Increased mode share for pedestrians and cyclists

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

Overall active mode share

The Ministry of Transport's Household Travel Survey data are presented as five-year averages in order to build statistically significant sample sizes for comparison.

The active mode[5] share of total trip legs[6] by residents (aged five and over) of main urban areas[7] 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 2009-13 survey period. This is down from 27% in 2007-11 and 2008-12, but still notably higher than 23% in the first survey period in 2003-07.

[5] Walking and cycling combined are considered active modes of transport.
[6] A 'trip leg' is a surveying unit of non-stop travel by a single mode for a single purpose.
[7] A main urban area is a population centre of at least 30,000 people as defined by Statistics New Zealand.

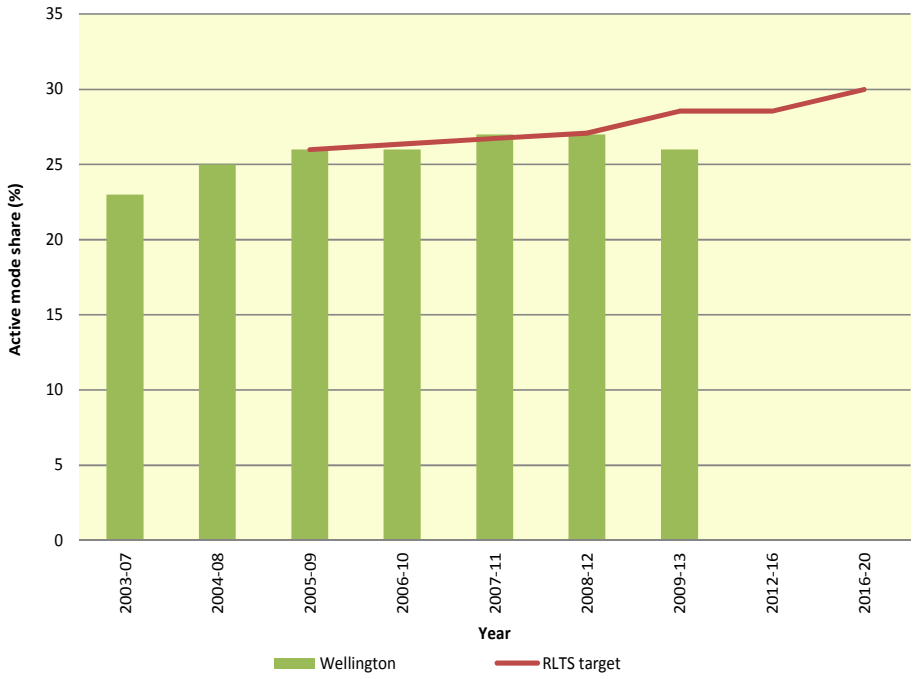

Figure 3.1: Active mode share of total trip legs (%) by residents of Wellington urban areas (aged five and over)

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 – Auckland and Christchurch – as well as New Zealand overall. Active mode share in the Wellington region has consistently been substantially higher than in Auckland and the New Zealand average in all surveys. The active mode share in Wellington and Christchurch was the same between 2003-07 and 2006-10, but then diverged as the share grew in the Wellington region to 27% before falling back slightly to 26% in 2009-13, while Christchurch saw a consistent decline between 2006-10 and 2009-13, falling to 22%.

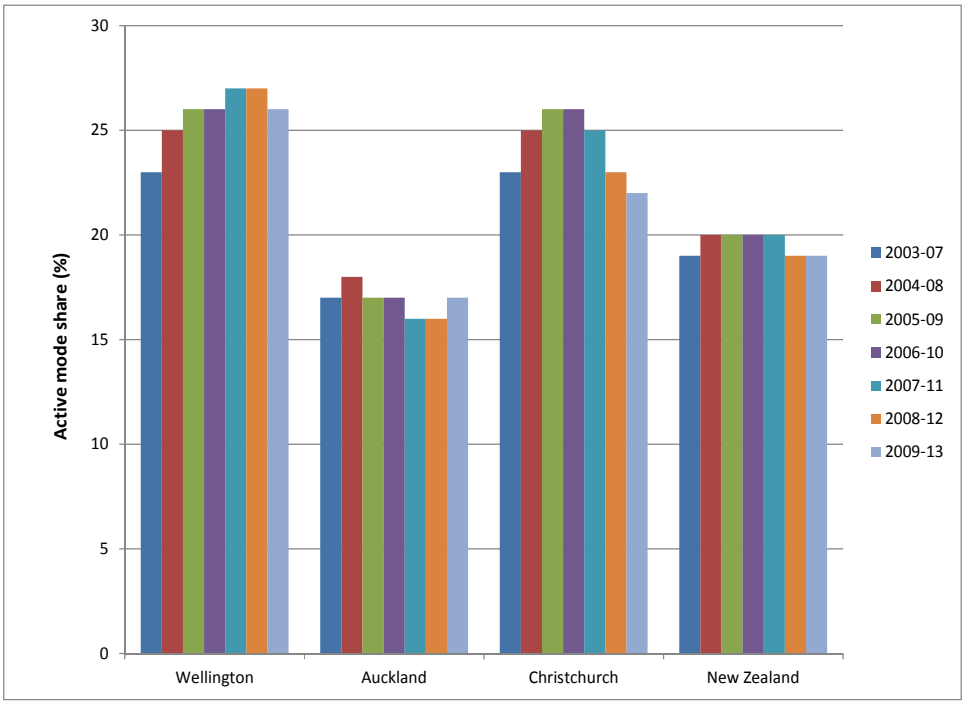

Figure 3.2: Active mode share of total trip legs (%) by residents of selected main urban areas (aged five and over)

Source: Ministry of Transport TMIF TP005

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

Mode of journey to work: active modes

Data from the New Zealand census in 2013, show that nearly 15% of journey to work trips across the region used active modes[8] as the 'main means of travel to work', as shown in Figure 3.3. The walking mode share of journey to work trips was nearly 12%, and cycling was just under 3%.

The total number of active mode journey to work trips increased by just over 3,900 between 2006 and 2013, which equates to a 14% increase in active mode trips to work. This was made up from a 48% increase in the number of cycle trips to work and a 10% increase in the number of walking trips.

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

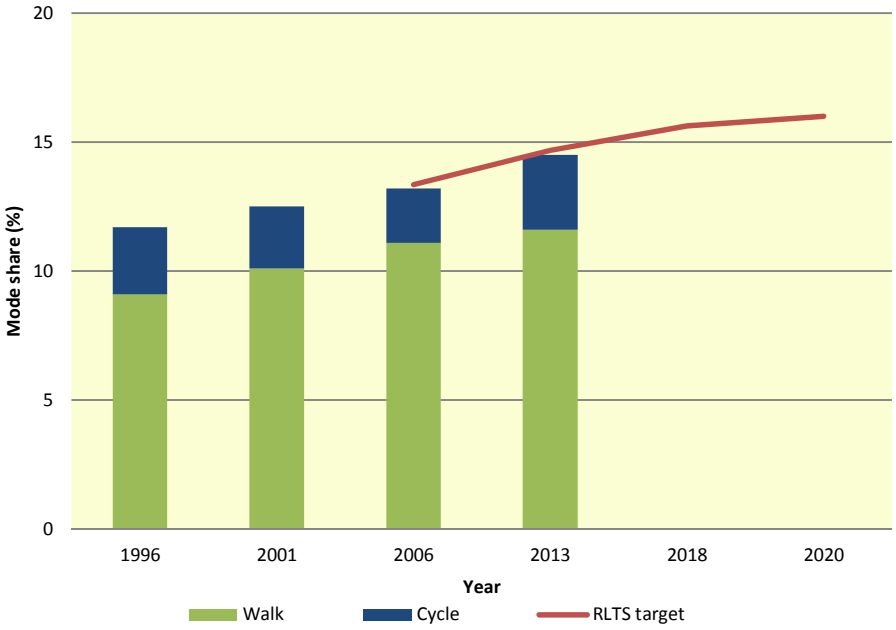

Figure 3.3: Walking and cycling mode share of journey to work trips (%)

Source: Statistics New Zealand

As shown in Figure 3.4, the active mode share of journey to work trips differs greatly across the region. In 2013, 71% and 37% of journey to work trips were made using active modes in Wellington CBD and Wellington City respectively, but varied between 4% and 11% in all other territorial authority areas. The active mode shares in Wellington CBD and Wellington City have shown an increasing trend over time, with a strong surge for Wellington City between 2006 and 2013 from 21% to 37%. There has generally been a decreasing trend in the other territorial authority areas, although an upturn was evident for Hutt City and Kapiti Coast District between 2006 and 2013.

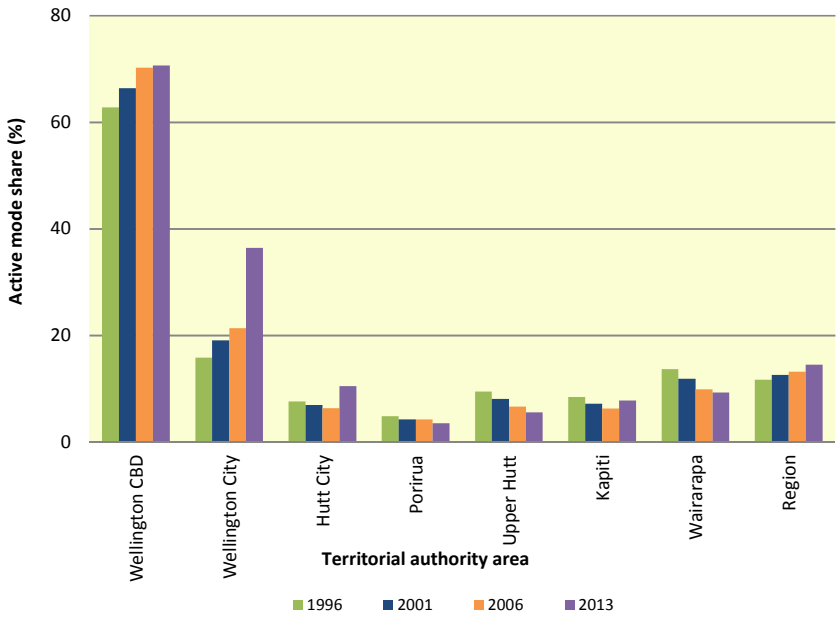

Figure 3.4: Active mode share of journey to work trips by territorial authority area and Wellington CBD (%)

Source: Statistics New Zealand

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.

Census data in Figure 3.3 show that the active mode share of journey to work trips has been increasing, with a particularly strong increase in cycling between 2006 and 2013. In 2013 the active mode share of journey to work trips was only marginally short of the 2013 RLTS target of 14.7%, at 14.5%, and would appear to be on target for 16% by 2020. Of the 14.5%, the walking mode share made up 11.6% of journey to work trips with cycling accounting for 2.9%.

From the 2009-13 Household Travel Survey, walking and cycling trips accounted for 26% of total trips in the region, as shown in Figure 3.2. The Ministry of Transport uses results from its Household Travel Survey to estimate the mode share of journeys to work (for full-time workers aged 16+, journeys starting between 6am and 9.30am). The 2009-13 survey found that 10% of journeys to work in the Wellington region used active modes.[9] This has increased from 6% in the 2003-07 survey but down from 12% in 2008-12.

The increase in active mode use indicates 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 continued growth is required if the 2020 RLTS target is to be achieved.

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

Related outcomes

3.2 Improved level of service for pedestrians and cyclists

Target: 95% of people report a 'good' or 'neither good nor bad' level of service for the strategic pedestrian network

Perceptions of the level of service for pedestrians

The latest findings, from the 2012 GWRC Transport Perceptions Survey, showed that 71% of respondents rated the level of service for pedestrians in the Wellington region as good, 9% rated the level of service as poor, 19% rated the level of service as neither good nor bad and 1% had no impression (Figure 3.5).

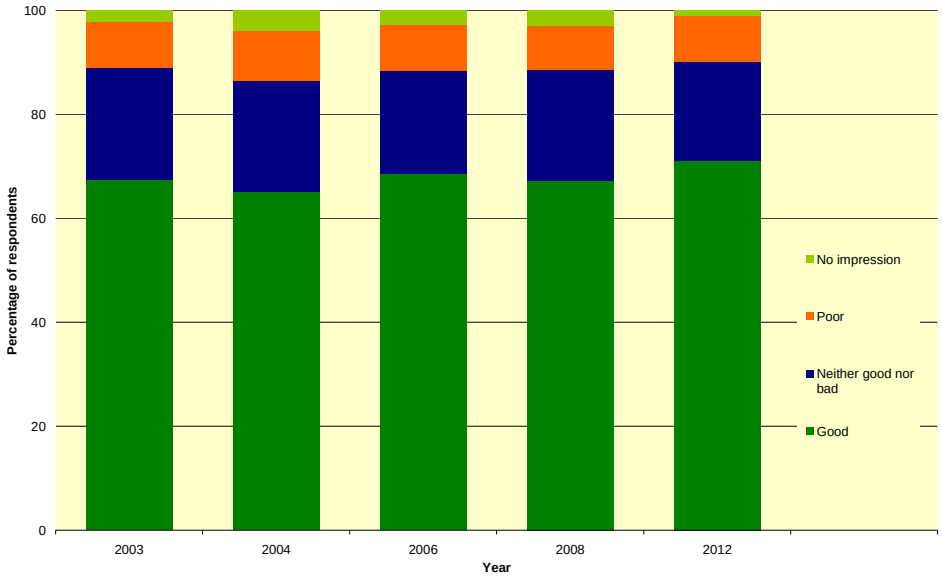

Figure 3.5: Perceptions of level of service for pedestrians (%)

Source: GWRC transport perceptions surveys

In 2012, 90% of respondents rated the level of service for pedestrians as either 'good' or 'neither good nor bad'. This has increased slightly from 88% in the previous survey and an increasing percentage of respondents are rating the level of service for pedestrians as 'good'. While these results are encouraging, the RLTS target has not yet been achieved.

Target: 70% of people report a 'good' or 'neither good nor bad' level of service for the strategic cycle network

Perceptions of the level of service for cyclists

In 2012, 50% of respondents to the GWRC Transport Perceptions Survey rated the level of service for cyclists as 'good' or 'neither good nor bad' (Figure 3.6). This is significantly below the RLTS target of 70% for this related outcome. Although the combined percentage of respondents rating the level of service for cyclists as 'good' or 'neither good nor bad' is similar to the result from the

previous survey in 2008, in 2012 respondents were less likely to rate the level of service for cyclists as 'good'.

There were also 38% of respondents that rated the level of service for cyclists as 'poor'. This has increased from 36% in the previous survey and has also been gradually increasing since the survey began in 2003.

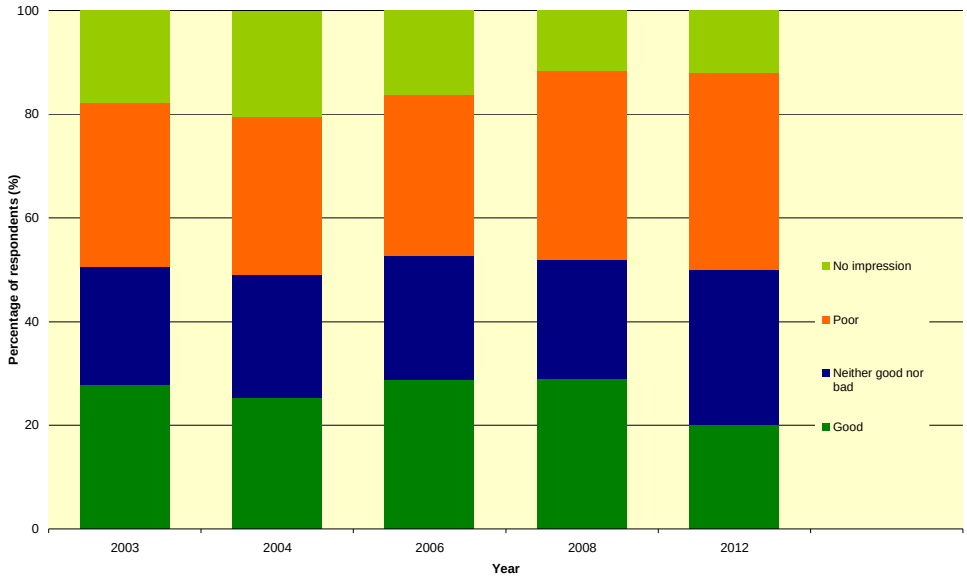

Figure 3.6: Perceptions of level of service for cyclists (%)

Source: GWRC transport perceptions surveys

Related outcome summary

Wellington residents perceive the level of service for pedestrians to be much greater than the level of service for cyclists in the region. This disparity has also increased over time.

The performance indicators for this outcome show that as of 2012, the RLTS targets have not been met. While there is still the need for improvement in the level of service for pedestrians if the target is to be met, some progress has been made. No progress has been made toward the level of service RLTS target for cyclists. Work focused on improving the level of service for cyclists across the region is required to make greatest progress on this outcome.

3.3 Increased safety for pedestrians and cyclists

Target: A reduction in the number of pedestrian casualties to no more than 125

Pedestrian casualties

The number of pedestrian casualties in the region, as reported in NZ Transport Agency's Crash Analysis System (CAS),[10] is shown in Figure 3.7.[11]

[10] CAS is a tool that manages, analyses and maps traffic crash and related data.
[11] It is likely that there will be some under-reporting of serious injuries but we are assuming this remains reasonably consistent year-on-year.

Fatal and serious injury pedestrian casualties have fluctuated over the measurement period, but show a 51% decrease over the last year, from 39 to 19. In 2013 there was one fatality , 18 serious injuries and 93 minor injuries across the region so total casualties are currently below the RLTS target of fewer than 125 pedestrian casualties per annum, so the RLTS target has been achieved.

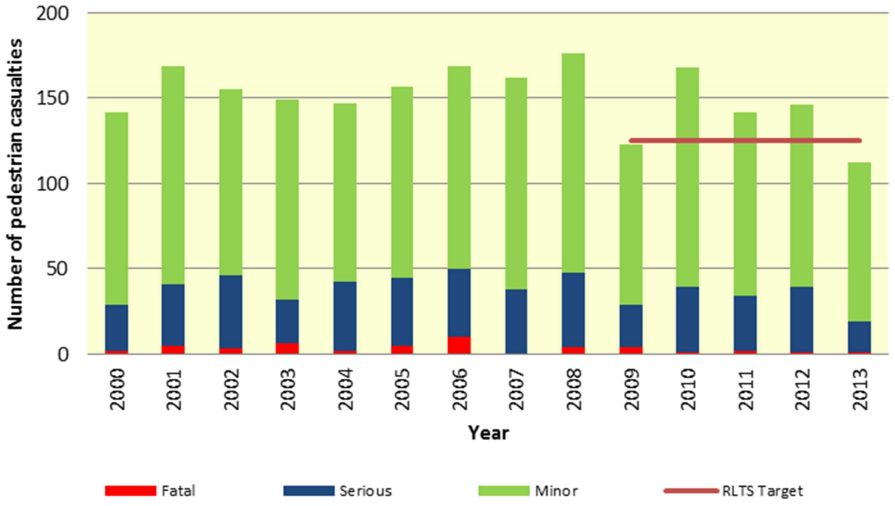

Figure 3.7: Pedestrian casualties by injury severity (calendar year)

Source: CAS

Significant progress has been made over the last year and the region has dropped below the RLTS target of no more than 125 pedestrian casualties per annum.

Target: A reduction in the number of cyclist casualties to no more than 110

Cyclist casualties

The number of cyclist casualties in the region is shown in Figure 3.8.[12]

Fatal and serious injury cyclist casualties gradually increased from 2002 to 2008, and then slightly decreased between 2008 and 2013 with a slight jump in 2012. There was a concerning increase in fatal and serious injury casualties in 2011 and 2012, but this has dropped back in 2013 to the lowest level since 2002. Over the last year, fatal and serious injury cyclist casualties in the region nearly dropped by two thirds, going from 34 to just 11.

Cyclist safety remains a challenge for the region. Further work to support and promote cyclist safety is required to reduce fatal and serious cyclist casualties in the region.

[12] It is likely that there will be some under-reporting of serious injuries but we are assuming this remains reasonably consistent year-on-year.

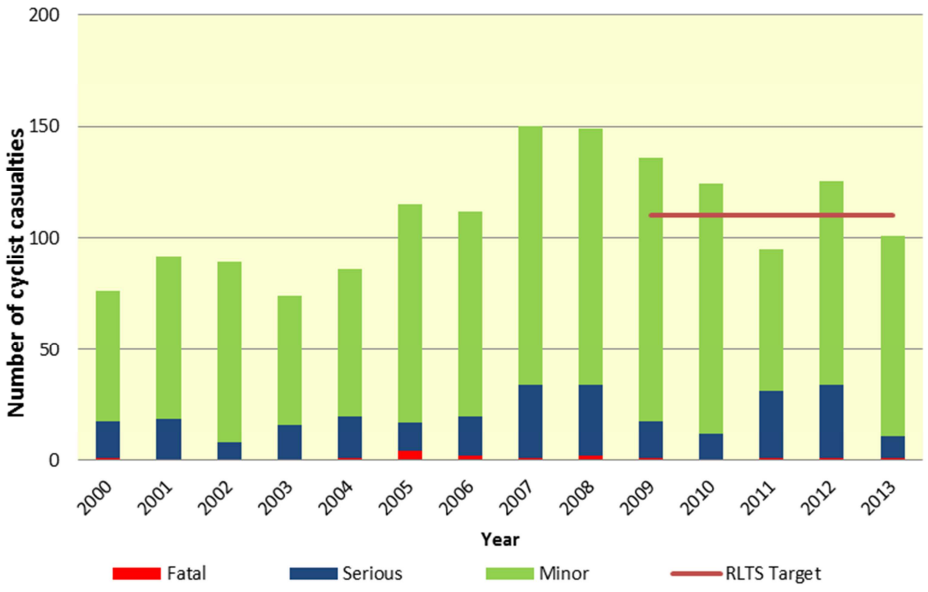

Figure 3.8: Cyclist casualties by injury severity (calendar year)

Source: CAS

It is important to note that cyclist casualties are disproportionately high given the low number of cycle trips in the region (see section 3.1). Also the relative risk of cyclists being injured is high compared to other transport modes.

Related outcome summary

The information currently available for this performance indicator is not sufficiently complete to be able to measure our progress against this related outcome. The RLTS target relating to pedestrian safety has been achieved, but insufficient data are available to measure our progress against the RLTS target for cycling safety. Even if roughly no reduction in minor injury cyclist casualties has occurred (as shown in Figure 3.8), the fact that the number of fatal and serious injury cyclist casualties has reduced by two-thirds is positive outcome for the region.

There is still room for improvement across the region, and a continued focus on pedestrian and cyclist safety will be needed to maintain levels below the RLTS targets for this related outcome.

4. Environmental Outcomes

Introduction

This section discusses progress towards the RLTS outcomes with an environmental focus.

The following key outcome is sought for the region's land transport network:

- **Reduced greenhouse gas emissions**

The performance indicator associated with this key outcome is:

  – Carbon dioxide emissions

The related outcomes and associated performance indicators are:

- **Reduced private car mode share**
  – Mode of journey to work: motor vehicle
- **Reduced fuel consumption**
  – Fuel consumption
- **Increased private vehicle occupancy**
  – Vehicle occupancy

Key outcome

4.1 Reduced greenhouse gas emissions

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

Carbon dioxide emissions

Carbon dioxide is the most abundant greenhouse gas formed from the combustion of fossil fuels.[13] Figure 4.1 shows the transport generated CO_2 emissions for the region, which have been calculated from fuel consumption information.[14]

In 2014 land transport fuel combustion produced 1,064 kilotonnes of CO_2 in the Wellington region. This is a small increase from 1,061 kilotonnes in 2013.

This is the second consecutive year that CO_2 emission levels have fallen below 2001 levels of 1,072, if this can be maintained the region will remain on track to achieving the RLTS target. 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.

[13] Ministry of Transport (2008). *The New Zealand Transport Strategy 2008*. Ministry of Transport, Wellington, p. 95.
[14] 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.

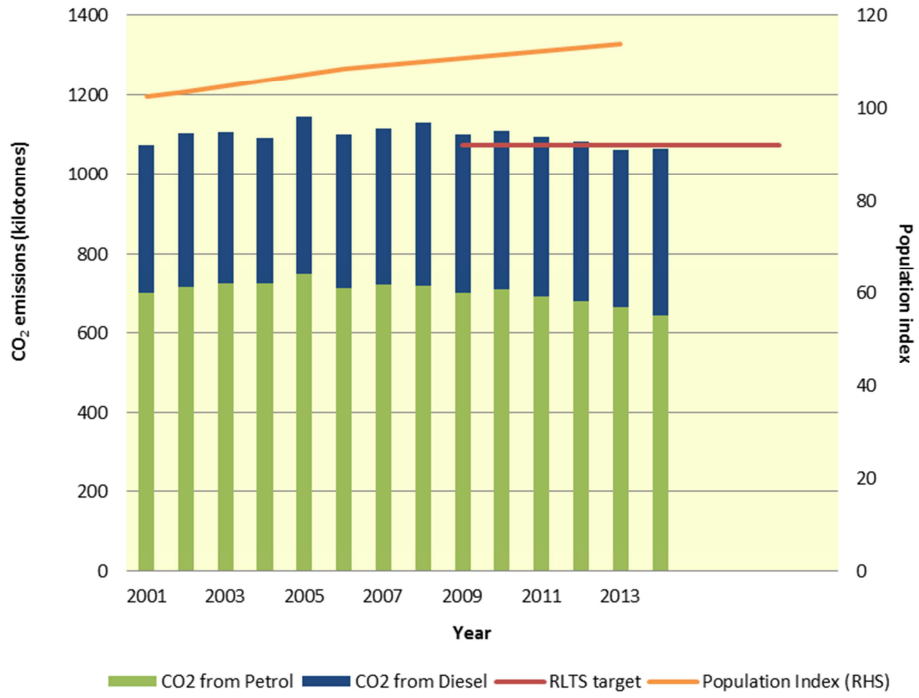

Figure 4.1: Transport generated CO_2 (kilotonnes)

Sources: local authorities; Ministry of Business Innovation & Employment

Key outcome summary

Carbon dioxide comprises the bulk of greenhouse gas emissions from transport, and 16% of New Zealand's total greenhouse gas emissions are from the transport sector.[15] Without intervention, these emissions are predicted to grow by 35% over the next quarter century.[16] A reduction in transport sector emissions will therefore significantly impact overall greenhouse gas levels.[17]

The performance indicator for this key outcome shows that, as a region, our transport-generated CO_2 emissions have plateaued 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.

In 2014, the region's transport generated CO_2 emissions were below the RLTS target for a second consecutive year, despite an increasing population. Ongoing efforts to maintain this positive result as the population continues to grow might include reducing the need to travel, improving the efficiency of the transport network, and promoting the use of active modes and public transport.

[15] Ministry for the Environment (2014). *New Zealand Greenhouse Gas Inventory 1990-2012*. MFE, Wellington, p. 37.
[16] Ministry for the Environment (2007). *Understanding Climate Change. Get a Grasp of the facts*. Ministry for the Environment, Wellington, p. 7.
[17] Ministry of Economic Development (2007). *New Zealand Energy Strategy to 2050*. Ministry of Economic Development, Wellington, p. 34.

Related outcomes

4.2 Reduced private vehicle mode share

Target: Private vehicles account for no more than 61% of region-wide journey to work trips

Mode of journey to work: motor vehicle

Data from the 2013 New Zealand census show that 64% of journey to work trips in the region were by motor vehicle,[18] as shown in Figure 4.2. This is ahead of the RLTS target for 2013 of 65%. A continuation of this falling trend is needed if the RLTS target of 61% is to be achieved by 2020.

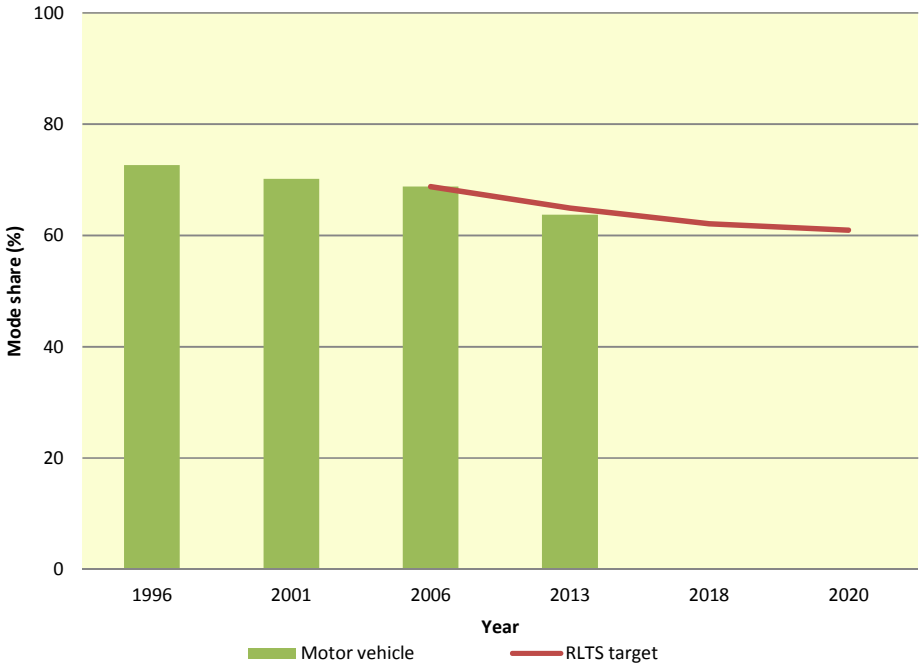

Figure 4.2: Motor vehicle mode share of journey to work trips (%)

Source: Statistics New Zealand

The motor vehicle mode share of journey to work trips has decreased significantly since the 2006 census, and the total number of motor vehicle journey to work trips (including motor vehicle passengers) has decreased by 4,476. This equates to a 3.6% decrease in motor vehicle trips to work.

Mode share of journey to work trips by motor vehicle differs across the region, as shown in Figure 4.3. Wellington CBD has had by far the lowest motor vehicle mode share throughout the period shown. In 2013 the motor vehicle mode share for Wellington CBD was just 15% and this had fallen from 20% in 2006. The territorial authority area with the next lowest motor vehicle mode share throughout the period is Wellington City, with a share of 51% in 2013.

[18] Motor vehicle includes: drove a private car, truck or van; drove a company car, truck or van; passenger in a car, truck or van; and motorcycle or power cycle.

The other territorial authority areas had a share varying between 70% and 80% in 2013.

Every territorial authority area has seen a decline in motor vehicle mode share since the 1996 census. The largest falls have been in Wellington City and Wellington CBD. It is notable however that the other areas did not see significant falls between 1996 and 2006 censuses, but that all exhibited falls in 2013, taking them below the 1996 shares.

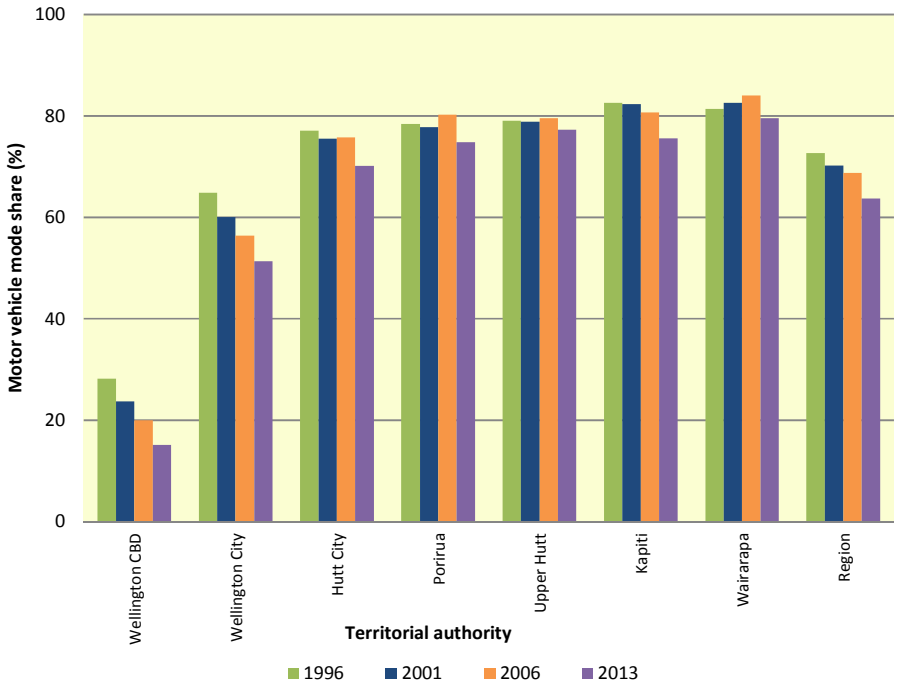

Figure 4.3: Motor vehicle mode share of journey to work trips by territorial authority and Wellington CBD (%)

Source: Statistics New Zealand

Related outcome summary

Census data have shown that the motor vehicle mode share of journey to work trips has decreased between the censuses of 1996 and 2013. However, between 1996 and 2006, the total number of motor vehicle journey to work trips increased by nearly 10,000, although a reversal of this trend was evident in the 2013 data, with the number falling back by over 2,500. The 2013 census figure for the motor vehicle mode share was under 64%, more than 1% below the RLTS target. In order to achieve the 2020 RLTS target, the share would need to fall by a further 3% to 61%.

Using a different methodology, the Ministry of Transport also estimates mode share of journeys to work (for full-time workers aged 16+, journeys starting between 6am and 9.30am), using results from its Household Travel Survey. The 2009-13 survey found that 68% of journeys to work in the Wellington region used motor vehicles.[19] This has decreased from 72% in the 2003-07

[19] Motor vehicle trips are counted as those in the categories: drive; drive + walk; passenger; and passenger +walk.

survey. It is also significantly lower than the 87% total in 2009-13 for New Zealand as a whole.

4.3 Reduced fuel consumption

Target: Petrol and diesel used for transport purposes per annum will remain below year 2001 levels

Fuel consumption

The quantity of petrol and diesel sold in the Wellington region provides a measure of fuel use in the region. Although some non-retail sales occur, and some fuel is purchased outside the region but used within it (and vice versa), this is the best measure of total regional fuel consumption currently available.

In 2014, total regional fuel sales have remained at 435 mega litres (ML), at the same level as 2013 (Figure 4.4). Over the last year diesel sales have increased by 6%, however petrol sales decreased by 3% resulting in no change to the observed total fuel sales. Despite a gradual reduction in petrol sales over the last few years, petrol sales continue to account for the majority of fuel sales in the Wellington region, comprising 64% of all fuel sales in 2013/14.

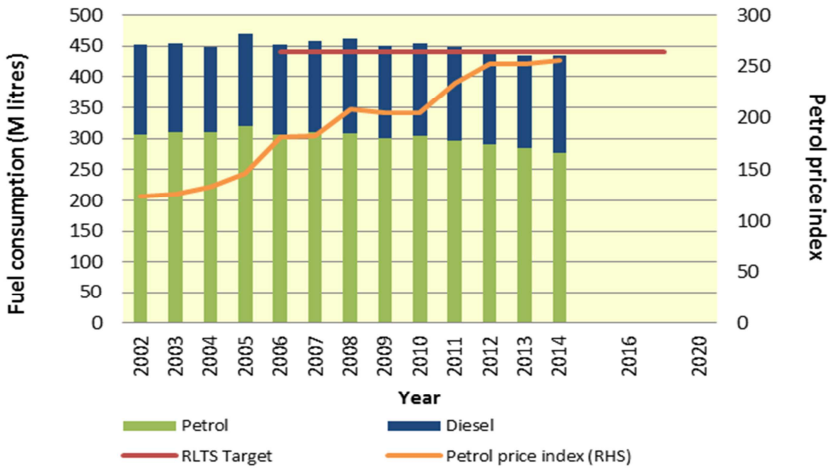

Figure 4.4: Fuel (diesel and petrol) consumption (ML)

Source: local authorities

Since 2002, the Wellington region's population has increased by around 14%, but fuel sales are 4% lower than they were in 2002, indicating that fuel use per capita has decreased.

There are a number of measures that are outlined in the Regional Travel Demand Management Plan (2009) to reduce fuel use that may have also contributed to the lower growth in fuel sales. To bring about long lasting behaviour change and to continue to achieve the RLTS target.

Related outcome summary

The performance indicator shows that fuel sales are for the second year are slightly below the RLTS target for this related outcome, the target has been met

for the last two years. Fuel sales peaked in 2005 (470 ML) and have been dropping since then, despite an increase in the region's population.

It is likely that increased fuel prices have assisted in curbing fuel sales together with increased vehicle fleet fuel efficiency, and the current economic recession. If the RLTS target is to be achieved, continued effort is needed. The key tools for influencing this target at a regional level include promotion of good public transport, walking and cycling networks, efficient land use and transport network and travel behaviour change programmes that reduce dependency on vehicle use and thus impact fuel use.

4.4 Increased private vehicle occupancy

Target: Vehicles entering the Wellington CBD during the 2 hour AM peak contain on average at least 1.5 people per vehicle

Vehicle occupancy

Figure 4.5 shows the average occupancy of vehicles entering the Wellington CBD. Only traffic heading into the city is counted during the two-hour morning commuter peak, and buses are not included.

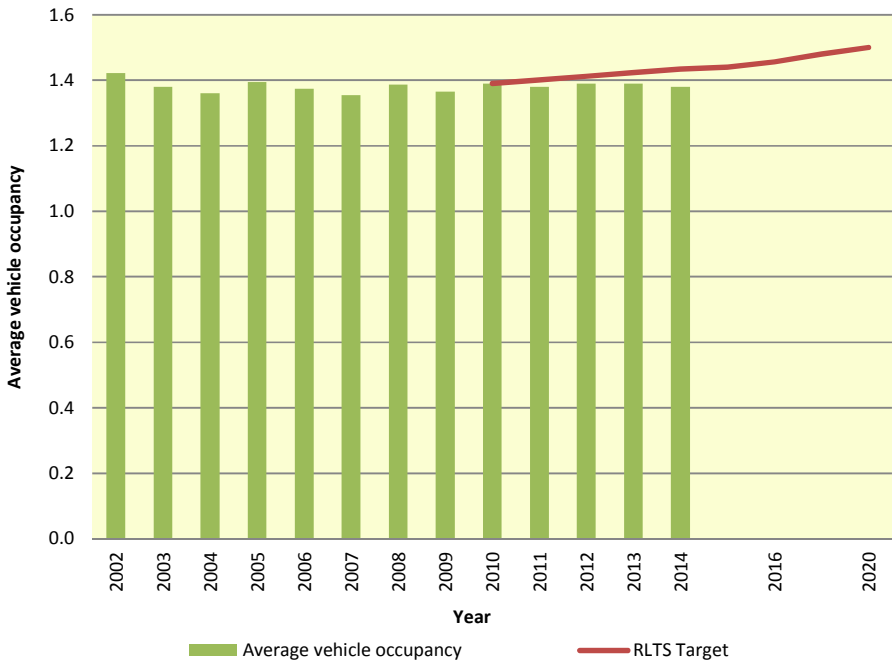

Figure 4.5: Wellington CBD cordon inbound vehicle occupancy, weekday AM two-hour peak, March

Source: Wellington City Council

In 2014, the average occupancy of vehicles entering the Wellington CBD was 1.38 persons. There has been little change in average vehicle occupancy over the period since 2002. There was a small decrease in vehicle occupancy between 2002 and 2004; there has been very little change since that time. Meanwhile, the RLTS target is rising, so the gap between actual and target

vehicle occupancy in increasing. In order to achieve the RLTS target by 2020, more progress towards increasing vehicle occupancy is needed by encouraging carpooling or ridesharing.

Related outcome summary

Data available on the average vehicle occupancy entering the Wellington CBD during the AM peak show that ongoing efforts, such as the regional carpooling scheme,[20] and new initiatives are needed to increase vehicle occupancy if the RLTS target is to be achieved by 2020.

Vehicle occupancy is currently at 1.38 people per vehicle and has seen little change over recent years. In order to achieve the larger shifts required to meet the RLTS target by 2020, one possibility is to introduce incentives and/or deterrents to driving a single occupancy vehicle.

[20] See www.letscarpool.govt.nz

5. Road Network Efficiency Outcomes

Introduction

This section discusses progress towards the RLTS road network efficiency outcomes.

The following key outcome for road network efficiency is sought for the region's land transport network:

- **Reduced severe road congestion**

The performance indicator associated with this key outcome is:

  – Carbon dioxide emissions

Related outcomes and associated performance indicators for road network efficiency are:

- **Maintained vehicle travel times between communities and regional destinations**

  – Key route travel speed by road

- **Improved reliability of the strategic roading network**

  – Total incident hours

Key outcome

5.1 Reduced severe road congestion

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

Average road congestion

Travel time performance is monitored by the NZ Transport Agency 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 are susceptible to day-to-day variations in network performance caused by incidents such as crashes, breakdowns and road works.

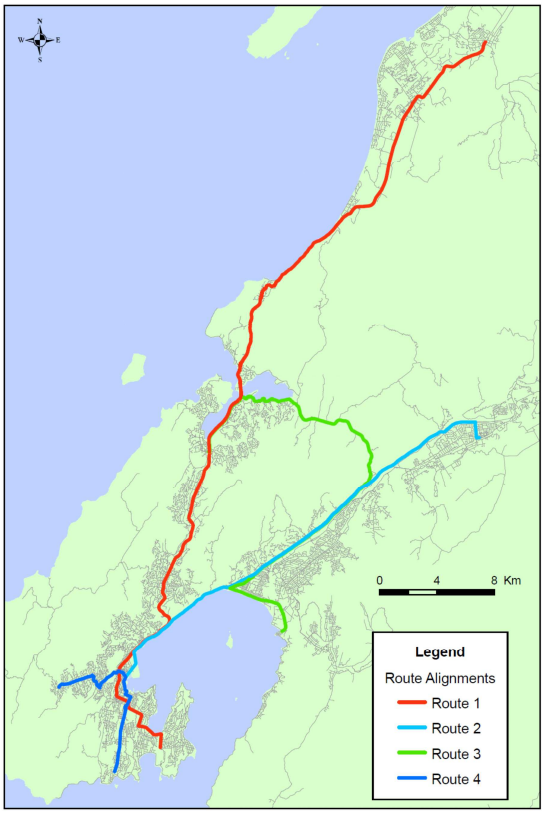

Figure 5.1: Greater Wellington region travel time performance monitoring network

Source: NZ Transport Agency

Information from NZ Transport Agency's March travel time surveys are used to determine the all day average congestion on a selection of the region's strategic road network. In 2014, the all day average congestion was 27.0 seconds delay per km travelled. This has increased from 2013, where the all day average congestion was 22.2 seconds delay per km travelled. Figure 5.3 below shows the average congestion results for three different periods of the day. In general, over the last year congestion has increased in the peak periods and stayed relatively flat in the interpeak period.

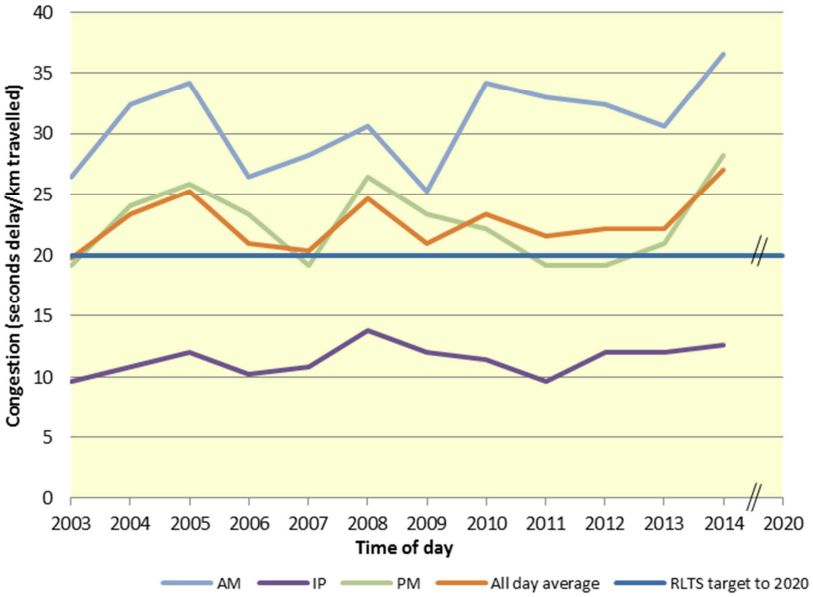

Figure 5.2: Average congestion (seconds delay/km travelled) by the time of day, March

Source: NZ Transport Agency

Over the last year, morning peak period congestion increased from 30.6 to 36.6 seconds delay per km travelled. Afternoon peak congestion also increased from 21.0 to 28.2 seconds delay per km travelled and interpeak congestion increased slightly from 12.0 to 12.6 seconds delay per km travelled.

The all day average congestion level remains above the RLTS target. Although the AM peak congestion rate has gradually decreased until 2014, it is now 10 seconds higher than it was in 2003. The high congestion rate during the AM and PM peak means that the all day average congestion rate currently exceeds the RLTS target by over 7 seconds.

Unusually high congestion in 2014 is likely a result of numerous road works taking place during the week of the driving surveys including:

- Capital projects between Mt Victoria and the Terrace Tunnel: Tunnel to Tunnel Inner City Transport Improvements (SH1 between Mt Victoria and Victoria Street)
- SH1 at Otaihanga Road (Mackays to Peka Peka): 50kph speed limit both directions
- SH1 near Kaiwharawhara: 70kph speed limit for southbound direction (M-F)
- SH58 at Moonshine Road: 50kph speed limit both directions (all week)

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. The morning peak congestion rate decreased gradually from 2010 to 2013 before increasing in 2014. The afternoon congestion rate has increased over the last two years. Although the interpeak congestion rate increased over the last two years, it has fluctuated around 10 seconds delay per km travelled since measurements began.

Over the last year there has been a sharp rise in the all day average congestion rate, due to increases in morning and afternoon peak congestion. The congestion rate continues to remain above the RLTS target of 20.0 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.

Related outcomes

5.2 Maintained vehicle travel times between communities and regional destinations

Target: Average vehicle journey 'speeds' shown in travel time surveys for selected key routes will remain at or above year 2003 levels

Key route travel speed by road

Data from the NZ Transport Agency's March travel time surveys are used to calculate the average vehicle speed for the road network. This is calculated by dividing the surveyed actual travel time by the length of the road network.

Figure 5.5 shows the all day average vehicle travel speed across three different periods of the day as well as the all day average speed. Travel speeds are consistently slowest during the AM peak and fastest during the interpeak. Although travel speeds are slowest during the AM peak they have remained unchanged over the last few years until 2014 when they have dropped. Travel speeds during the interpeak period have gradually declined over time. In 2014, the average PM peak travel speed was 48kph. This is the slowest result since 2003.

In 2014, the all day average vehicle speed on the region's roads was 49kph. This is a drop from 53kph in 2011-2013 and below the RLTS target of 55kph.

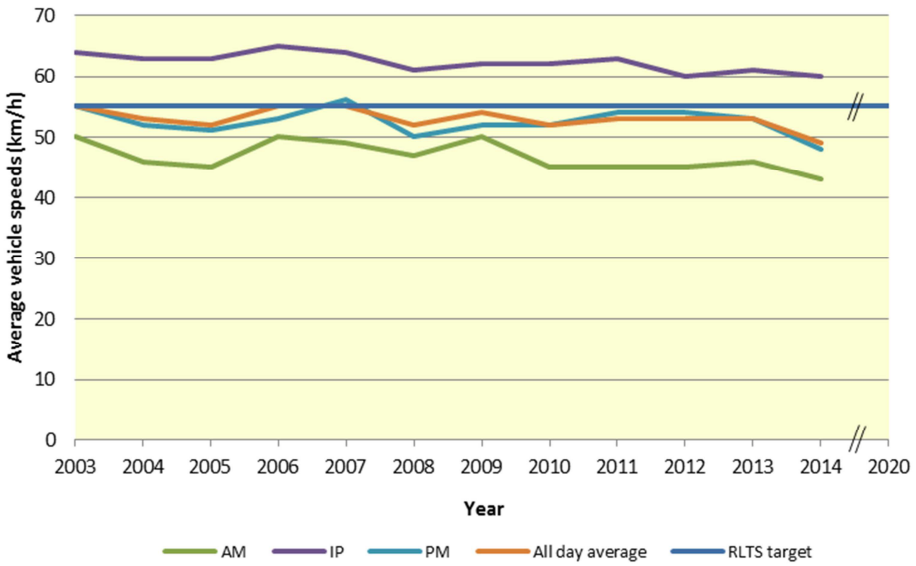

Figure 5.3: Road network all day average vehicle speeds (kph), March

Source: NZ Transport Agency

Related outcome summary

Assuming traffic volumes remain unchanged, increases in travel speed should lead to a general decrease in travel time on the region's roads and reflect an improved overall level of service on the road network. The all day average travel speed has reduced over the last year to 49kph. This is below the RLTS target of at or above 2003 levels (55kph).

Average travel times at each period of the day also sit below the RLTS target of at or above 2003 levels. Morning peak travel speeds have also reduced over the last year and they remain 7kph lower than 2003 levels. Evening peak travel speeds have also reduced to their lowest level in 2014 and are now 7kph below 2003. Travel speeds are consistently highest during the interpeak, but over the last year travel speeds have decreased and have fallen 4kph below 2003 levels.

5.3 Improved reliability of the strategic roading network

Target: Continual reduction in total incident hours

Total incident hours

Data from the Communications and Resource Deployment (CARD) system showed that, in 2013, police were in attendance at road traffic incidents[21] in the Wellington Police District for 3,234 hours (Figure 5.5). This is an increase of 151 hours over the previous year, the first year since 2006 that there has been an increase.

Police attendance hours at road traffic incidents have decreased by 31% since our first measurement in 2006. However, attendance time in 2013 was 3,234

[21] Road traffic incidents include: breakdowns, blockages and vehicle collisions.

hours, an increase on last year of 5%. The RLTS target stipulates continual reduction in total incident hours. To achieve the RLTS target by 2020 the downward trend observed in previous years needs to resume.

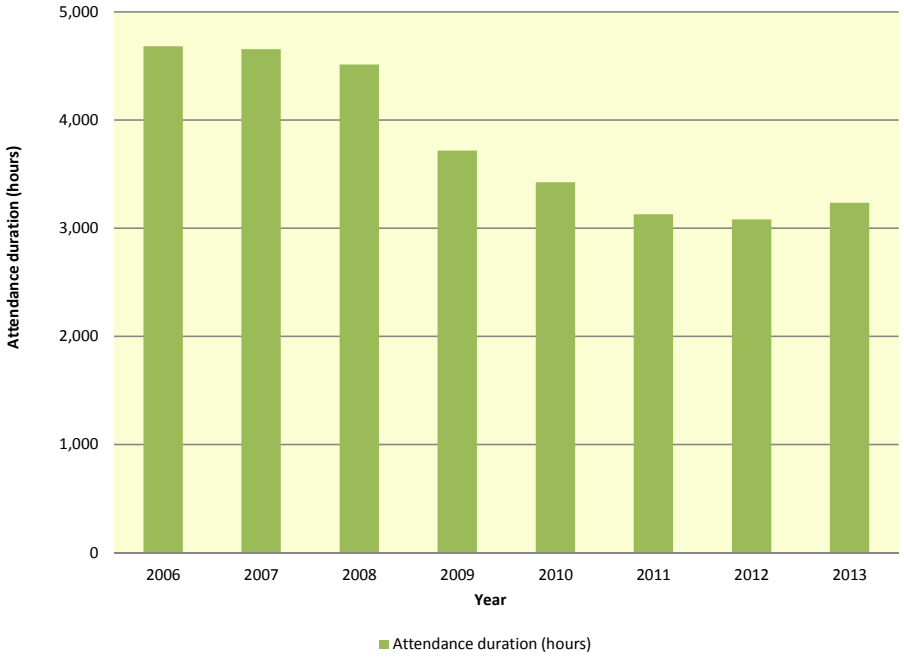

Figure 5.5: Police attendance time at road traffic incidents across the region (calendar year)

Source: Police

Related outcome summary

Police attendance time at traffic incidents has been on a decreasing trend since 2006, although there was a 5% upturn in 2013. The net effect of attendance time in 2013 is a 31% reduction from 4,680 hours in 2006. This reduction in police incident hours over this time is encouraging and means the RLTS target is currently being met. However, this downward trend needs to be maintained to achieve the RLTS target by 2020.

6. Road Safety Outcomes

Introduction

This section discusses progress towards the RLTS road safety outcomes.

The following key outcome for road safety is sought for the region's land transport network:

- **Improved regional road safety**

The performance indicators associated with this key outcome are:

  – Road crash fatalities

  – Killed and seriously injured

There are no related outcomes for road safety.

Key outcome

6.1 Improved regional road safety

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

Road crash fatalities

The total number of regional road crash fatalities[22] and the number of fatalities attributable to road factors[23] as reported by the police to NZ Transport Agency via the Crash Analysis System (CAS)[24] is shown in Table 6.1. In 2013, one road crash fatality was attributable to road factors. The previous time that a road crash fatality in the region was attributable to road factors was in 2004.

[22] Injuries that result in death within 30 days of a crash.
[23] 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.
[24] The severity of a crash is determined as the most severely injured casualty in the crash.

Year	Total fatalities	Fatalities attributable to road factors
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
2011	13	0
2012	11	0
2013	18	1

Table 6.1: Total fatalities and fatalities attributable to road factors (calendar year)

Source: CAS

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

Killed and seriously injured

Figure 6.1 shows the number of fatal[25] and serious[26] injury casualties for all vehicle types in the Wellington region as reported by the police to NZ Transport Agency via CAS.

In 2013 there were 18 fatal and 115 reported serious injury casualties. From 2000 to 2013, the number of fatal casualties has decreased by 44%, from 32 to 18. Over the same period the number of reported serious injury casualties has also decreased from 164 in 2000 to 115 in 2013. However, just looking at the difference between 2000 and 2013 hides the changes observed over this period. From 2000 to 2007 the number of killed and seriously injured steadily increased but since this time they have decreased to the level observed in 2011. This number increased again in 2012 but dropped again significantly in 2013 to the lowest level since before 1996.

[25] Fatal = injuries that result in death within 30 days of a crash.

[26] 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.

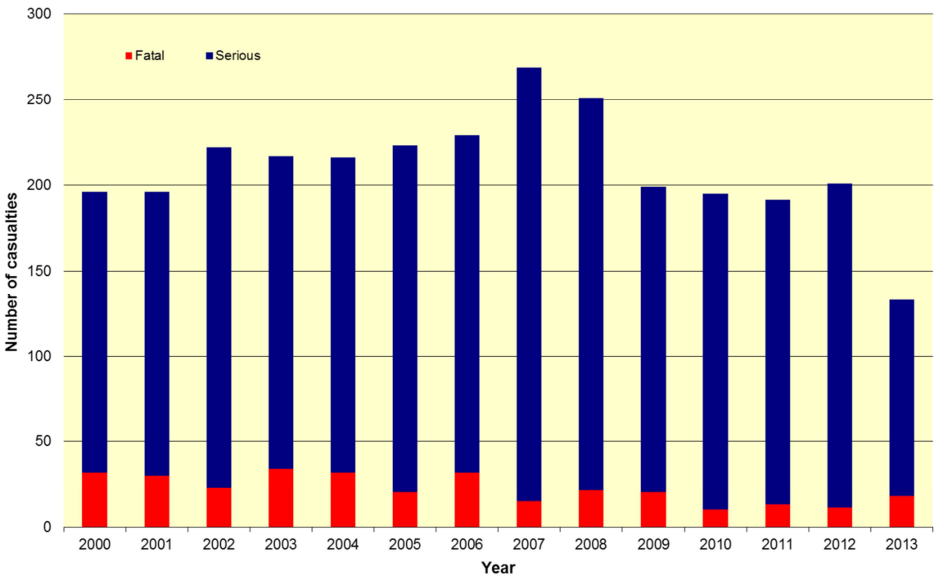

Figure 6.1: Total fatal and serious injury casualties (calendar year)

Sources: CAS; NZ Transport Agency

While the results over the last few years appear encouraging it has to be kept in mind that not all crashes causing serious injuries are reported by the police and thus will not be recorded in CAS. Hospital data can also provide a picture of the number of fatal and serious injury casualties.[27] Figure 6.2 shows all fatalities in the region and hospitalisations that required more than one days stay, where the reason for the fatality or hospital admission was recorded as 'motor vehicle accident'.

According to hospital data, in 2013 there were 18 fatalities and 182 hospitalisations >1 day across the region, resulting from motor vehicle accidents. These figures show similar trends but are generally higher than the information obtained through CAS over the period.

Over the last year there has been a substantial decrease in the combined fatalities and hospitalisations >1 day from motor vehicle accidents and they are 9% lower than observed in 2000. However, once again comparing 2013 to 2000 alone hides the changes observed over this time. Fatalities and hospitalisations >1 day remaining relatively unchanged from 2000 to 2003, then steadily increased from 2004 to 2008. A decrease was observed from 2008 to 2009 and fatalities and hospitalisations >1 day have remained relatively unchanged since this time with a spike in 2012.

[27] To account for the possible under-reporting of serious injury casualties, previous years analyses adjusted the serious injury casualties by a crash reporting rate. This analysis has now been replaced by hospitalisation data.

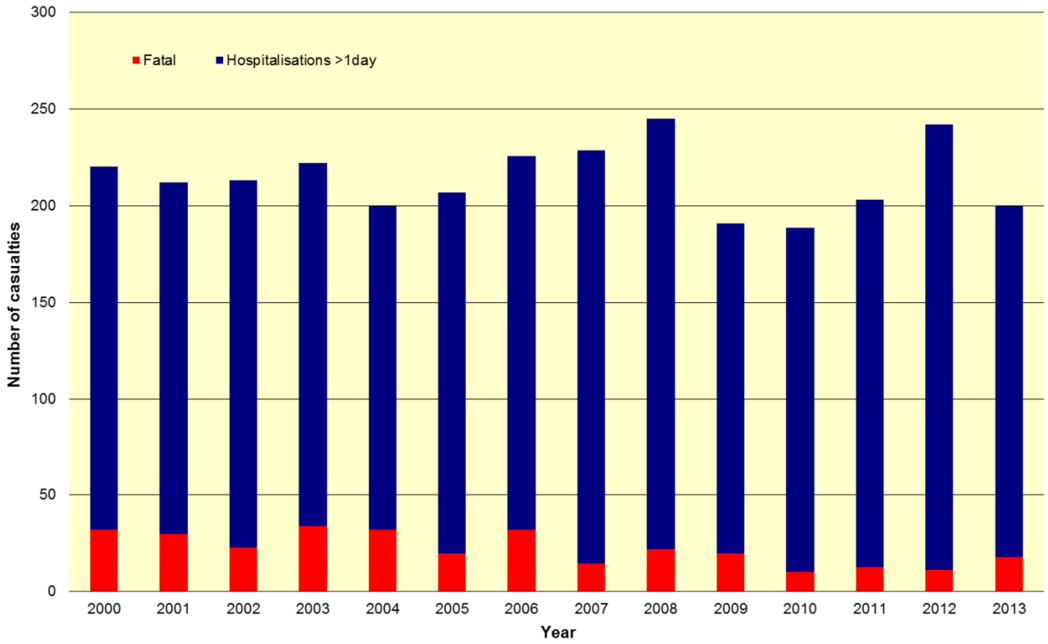

Figure 6.2: Deaths plus hospitalisations of more than one day resulting from motor vehicle accidents (calendar year)

Source: NZ Transport Agency

The observed trend for fatalities and hospitalisations >1 day (Figure 6.2) is similar to that seen for fatalities and serious injury casualties recorded by the police in CAS (Figure 6.1).

Reducing road crash fatalities and injuries is a priority for the region. Fatalities and serious injury casualties (or hospitalisations >1 day) have decreased slightly over the last few years. A continued focus in this area will be needed to maintain and continue the current downward trend.

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 slightly decreased since 2000. Serious injury casualties which increased steadily earlier in the decade have in 2013 seen some encouraging results.

The RLTS target of no road crash fatalities attributable to roading network deficiencies has not been met over the last year. However, police data show that the other RLTS target of a continual reduction in the number of killed and seriously injured on the regions roads has been met over the last year. While progress has been made towards the key outcome of improving regional road safety, fatalities and casualties are still occurring on the regions roads and therefore remain an issue for the region. If road safety is to be significantly improved, more intervention, as outlined in the governments Safer Journeys Road Safety Strategy,[28] and cross-agency effort is required.

[28] Ministry of Transport (2010). *Safer Journeys: New Zealand's Road Safety Strategy 2010-2020*. Ministry of Transport, Wellington.

7. Land Use and Transport Integration Outcomes

Introduction

This section discusses progress towards the RLTS land use and transport integration outcomes.

The following key outcome for land use and transport integration is sought for the region's land transport network:

- **Improved land use and transport integration (in line with the WRS and local authority urban development strategies)**

Currently there are no specific performance indicators that provide adequate information to measure progress towards this key outcome and its related target.

There are two related outcomes for land use and transport integration. These are shown below, along with the associated performance indicators:

- **Improved integration between transport modes**
  - Public transport services with integrated ticketing
  - Cycle storage and park 'n' ride facilities
- **Sustainable economic development supported (in line with the WRS)**
  - State highway vehicle kilometres travelled as a ratio to GDP

Key outcome

7.1 Improved land use and transport integration (in line with the WRS and local authority urban development strategies)

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, a review[29] of territorial authority procedures identified that there was some consideration of active modes and public transport in all district plan policies.

Related outcomes

7.2 Improved integration between transport modes

Target: The majority of public transport services are covered by integrated ticketing

Public transport services with integrated ticketing

An integrated, electronic ticketing system across public transport modes and operators is increasingly regarded as a fundamental component of a modern

[29] Greater Wellington Regional Council. (2008). *Land use & Transport integration: Assessment report*, p16.

and flexible public transport network, and therefore continues to be sought by the RLTS.

Currently, no overall system of fares or ticketing integration is operational in the Wellington region. Some manually based integrated ticketing arrangements exist with the region, for example the 'Hutt Plus' bus/rail transfer tickets. Two major bus operators provide proprietary contactless payment card solutions, which are not interoperable, and rail ticketing is entirely manually-based.

The first phase of the Wellington Integrated Fares and Ticketing project is underway, with an investigation being led by GWRC in partnership with the New Zealand Transport Agency.

The future fare structure has been firmed up as part of the RPTP, with:

- proposals for free transfers from one vehicle to another during a journey
- various concessions
- off-peak fares
- fare capping for a specified period of travel
- weekend family passes
- investigation of group discounts, and
- including public transport travel to and from venues in the price of entry tickets to larger events.

Target: Continued improvement in walking, cycle and park 'n' ride facilities at and around public transport interchanges

Cycle storage and park 'n' ride facilities

In 2014 there were a total of 5,752 park 'n' ride car parks and 336 cycle storage spaces available to commuters at railway stations across the region. [30] Park 'n' ride car parks and cycle storage spaces at railway stations have increased steadily over the last few years. Since 2009, park 'n' ride car parks have increased by around 21% and cycle spaces have more than doubled going from 132 to 336 spaces.

The increase in park 'n' ride facilities was mainly due to extensions at Waikanae, Paremata and Petone stations, whereas cycle facilities have increased at most stations across the region.

Related outcome summary

As many journeys are multi-modal, a good level of integration between different transport modes is sought by the RLTS. The current indicators show that some progress has been made toward the RLTS outcome of improved

[30] Note that no data is currently available relating to walking facilities or facilities at bus interchanges.

integration between transport modes. There are increasing numbers of park 'n' ride car parks and cycle storage spaces available at railway stations. However, no data are currently available relating to walking facilities or facilities around other public transport interchanges.

7.3 Sustainable economic development supported (in line with the WRS)

Target: Continual reduction in VKT relative to GDP

Ratio of state highway VKT to GDP

Figure 7.1 shows the ratio of vehicle kilometres travelled (VKT) on the state highway network to GDP (gross domestic product) for the region. State highway VKT relative to GDP decreased each year from 2005 to 2007, increased from 2007 to 2008, and has continued declining since this time. This result means that the RLTS target has been met.

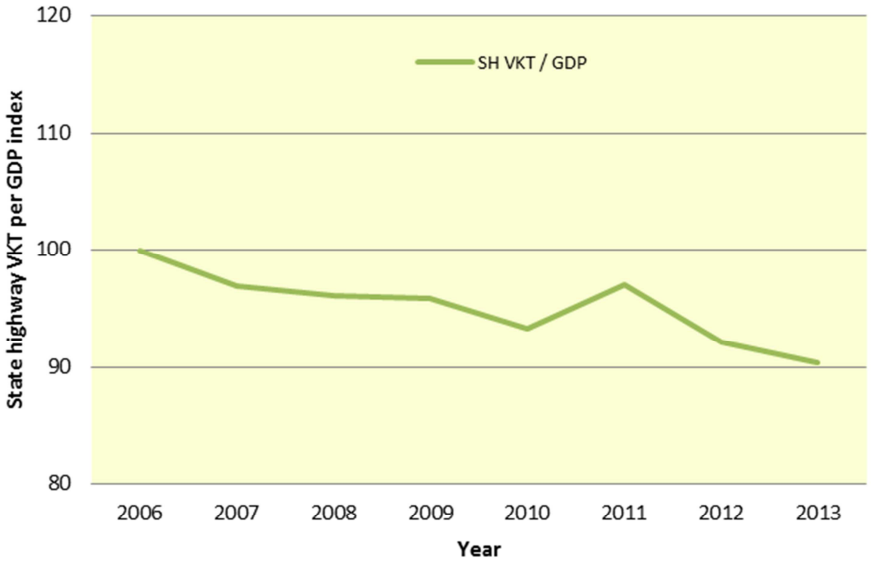

Figure 7.1: Ratio of state highway VKT to GDP

Source: NZ Transport Agency and BERL

GDP is an indicator of economic growth; therefore the relationship between economic growth and transport activity can be studied by comparing trends in both the region's real GDP and VKT. Both state highway VKT and GDP have fluctuated over the measurement period, but state highway VKT is continuing to fall while GDP is currently 6% higher. VKT measurements for 2013 in the above graph reflect 2011/2012 numbers, since regional VKT has not been available from the Ministry of Transport since that fiscal year.

Related outcome summary

The performance indictor for this related outcome shows that, with the exception of 2011, progress has been made toward the RLTS target. Over the last year a decrease in state highway VKT relative to GDP has been observed

due to an increase in GDP. This means there since 2011 there has been less traffic on the region's state highway network for each unit of GDP.

8. Freight Outcomes

Introduction

This section discusses progress towards the RLTS freight outcomes.

The following key outcome for freight is sought for the region's land transport network:

- **Improved regional freight efficiency**

The performance indicator associated with this key outcome is:

  – Journey times for road freight between key destinations

The related outcome and associated performance indicator for freight is:

- **Improved inter-regional freight efficiency**

  – Removal of rail freight infrastructure constraints

Key outcome

8.1 Improved regional freight efficiency

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

Journey times for road freight between key destinations

NZ Transport Agency travel time survey data were 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.

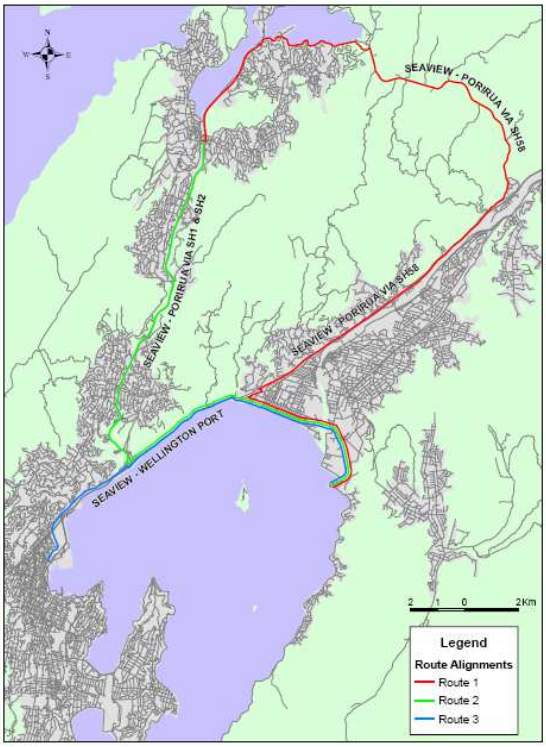

Figure 8.1: Representative regional road freight routes

Sources: NZ Transport Agency; GWRC

Figures 8.2 to 8.4 show the all day average travel time in minutes for routes 1, 2 and 3, respectively. In 2014 the all day average time taken to travel between Porirua and Seaview (eastbound) via State Highway 58 was 39.65 minutes. The all day average time for this route has gradually decreased over time, up until 2014. Travel time is still highest during the AM peak, but an increase in travel time has been observed over the last year during the AM, interpeak and PM peak. It is the increase in travel time during the AM peak that accounts for the majority of the increase observed in all day average travel time.

All day average travel time on the westbound route, between Porirua and Seaview via State Highway 58, has fluctuated since 2003 but has generally increased over time. Travel time on the westbound route is still highest during the AM peak. The travel time during the interpeak decreased slightly, but the travel time during both the AM and PM peak increased.

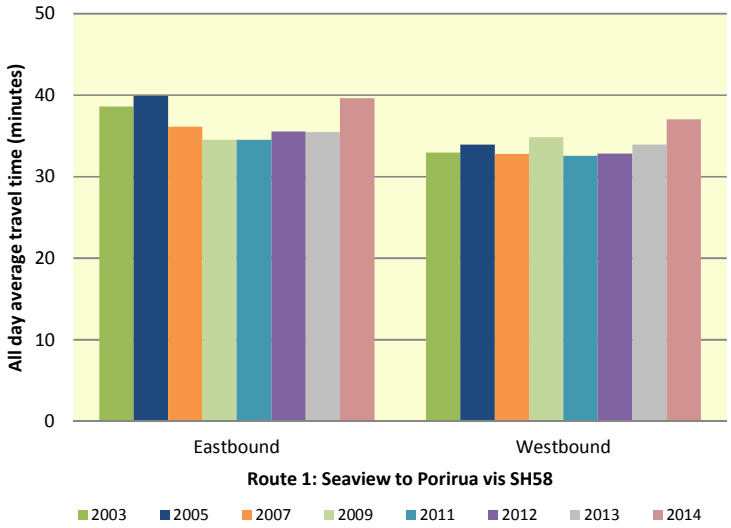

Figure 8.2: All day average travel time (mins) on road freight route 1, March

Sources: NZ 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 westbound directions for this route. In general, it is the increase in travel time during the PM peak that has bought about the increase in all day average travel time.

The difference in eastbound and westbound travel time between route 1 and route 2 has generally decreased over time. However in 2014 the travel time for eastbound travel via State Highway 58 was around 17 minutes slower than travel via State Highways 1 and 2, compared to a difference of 13 minutes the year before. The difference in the travel time for the westbound direction on route 1 compared to route 2 is much smaller from just over 14 minutes in 2003 to just 13 minutes in 2014.

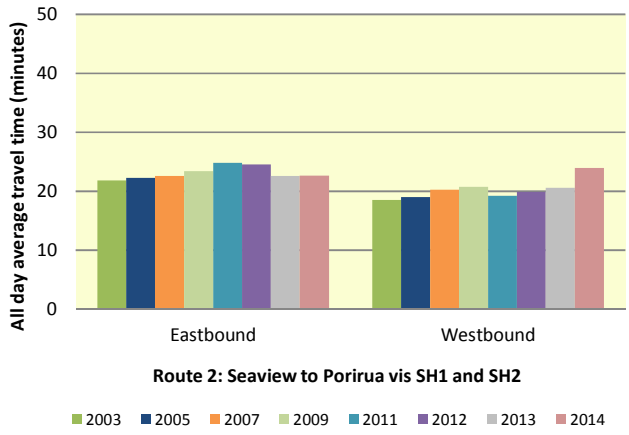

Figure 8.3: All day average travel time (mins) on road freight route 2, March

Sources: NZ Transport Agency; GWRC

The all day average travel time between Seaview and CentrePort was just over 19 minutes in the eastbound direction and just under 23 minutes in the westbound direction in 2014. There has been a gradual increase in all day travel time in both eastbound and westbound directions since the surveys began in 2003, but travel times have remained relatively static over the last few years except in the westbound direction in 2014.

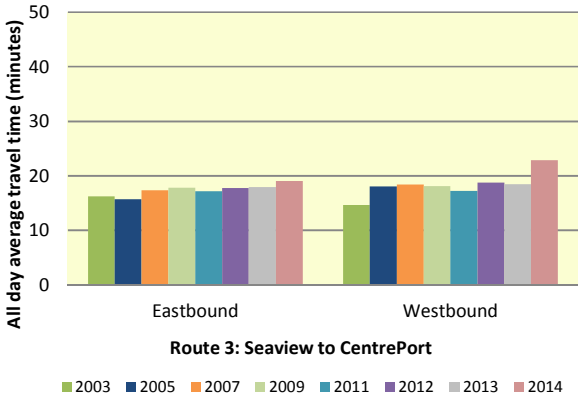

Figure 8.4: All day average travel time (mins) on road freight route 3, March

Sources: NZ Transport Agency; GWRC

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. In general the all day average travel time in the eastbound direction on the Seaview and Porirua via SH58 freight route has decreased over time, although there was an observed large increase over the last year in both directions.

In general the all day average travel times on the other two freight routes have increased over time. The increases for the westbound traffic 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 all 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.

There is an observed large increase in average travel times in 2014 on the SH58 route and in the westbound direction for other routes. Further measurements will determine whether this is an ongoing trend or not.

Related outcome

8.2 Improved inter-regional freight efficiency

Target: Infrastructure constraints to rail freight movements are removed

Removal of rail freight infrastructure constraints

KiwiRail highlighted three key areas where infrastructure constraints limited the movement of rail freight through the region. These areas were:

- Kaiwharawhara throat
- North-South junction[31]
- Paekakariki to Waikanae

All three areas of infrastructure constraint have now been addressed by KiwiRail. The work at Kaiwharawhara throat has addressed merging and capacity issues, and the work carried out at North-South junction[32] and between Paekakariki to Waikanae has been to reduce delays and the conflicts experienced between commuter and freight services.

Related outcome summary

Inter-regional freight movement has increased by 21% over the 2003 to 2014 period, with a peak in freight movement observed in 2008. The majority of inter-regional freight is moved by road or through the Port.

Three areas of rail freight infrastructure constraints have previously been identified by KiwiRail. Over the last few years KiwiRail have removed most of the identified infrastructure constraints. This means that the RLTS target for this related outcome has been largely achieved.

[31] The section of railway between Pukerua Bay and Paekakariki.
[32] There is still some constraint at North-South junction due to single tracking in the tunnels. Addressing this issue will involve significant cost.

9. RLTS Implementation

9.1 Overall progress achieved in 2013/14

Highlights of the 2013/14 year include:

- development of a first draft of the policy framework for the Wellington Regional Land Transport Plan
- completion of the Wellington Public Transport Spine Study (March 2014)
- two new schools enrolled in the school travel plan programme with 72 schools now participating
- completion of the annual workplace active commute programme Active a2b (May 2014)
- expanded *Let's Carpool* nationally with Hawkes Bay now joining
- completed and published annual tests of new bike lights and handed out reflective gear at requests from public and cycling events
- adoption of the Regional Public Transport Plan (PT Plan) in June 2014 (including the 2013 update to the Regional Rail Plan, the Wellington City bus review and the decision on the future bus fleet for Wellington City)
- significant progress in the development of the Public Transport Operating Model (PTOM). Procurement activity commenced with New Zealand and overseas participants at a market soundings event for the new rail and bus contracts commencing in 2016/ 17 respectively.
- following favourable financial results in the 2013/14 year (increased rail fare revenue and reduced expenditure) fares will not be increased in the 2014/15 year.
- completion of the Real Time Information (RTI) project with the introduction of RTI on rail in October 2013, installation of RTI display signs on Wellington's Golden Mile
- commencement of construction of the 2nd tranche of 35 new Matangi trains and reconfiguration of the seating on the Wairarapa SE rail carriages in response to customer feedback
- refurbishment of Waterloo Station roof, repairs to a number of station buildings and completion of a concept design for Upper Hutt station
- the addition of 239 car parks at Porirua Station, with additional lighting and CCTV security cameras. Approval to purchase land for park and ride at Tawa and Petone stations, to provide a further 290 car parks
- improvements to rail security including installation of a region wide rail fibre optic network and commencement of monitoring at the new CCTV rail monitoring centre
- significant changes to Whitby bus services, and some changes to Wellington school bus services
- bus timetable reliability improvements, using real time information data, with changes made to Happy Valley, Southgate, Houghton Bay Eastbourne services and Karori school trips
- installation of 6 new bus shelters and 15 replacement bus shelters, the roll-out of a new anti-graffiti laminate on bus shelter glass panels, and commencement of the upgrade of the Bunny Street bus interchange in Hutt City

- 1.3 million bus, rail, and ferry services delivered
- 35.8 million passenger trips, a 1.8% increase over 2012/13
- 271,000 Total Mobility Scheme trips, a 5.7% increase over 2012/13
- 94.3% of rail services on time (93.8% in 2012/13)
- 99.7% of bus services on time (99.9% in 2012/13)
- 2.9 million visits to the Metlink main website and 2.7 million visits to the mobile website

9.2 Major 2014/15 actions programmed

Major programmes and projects anticipated to **be completed** in 2014/15 include:

- completion of the Wellington Regional Land Transport Plan 2015
- completion of the Buckle Street underpass at Memorial Park
- completion of the business case for integrated fares and ticketing

Major programmes anticipated to **commence or continue** in 2014/15 include:

- continue construction of the Mackays to Peka Peka Expressway
- continue Peka Peka to Otaki preparation activities
- continue the development of a solution for the Basin Reserve to meet the intent of the N2A Corridor Plan
- continue the development of an application for the Mount Victoria Tunnel duplication and Ruahine Street project
- continue the development of the Terrace Tunnel duplication project
- continue the development of the Ngauranga to Aotea Quay project
- continue to investigate the preferred option for Petone to Grenada Link Road
- continue Ngauranga to Petone Cycle way project investigations
- continue Hutt Valley bus service review
- continue operational planning of the Wellington City bus review
- continue to implement the new PT operating Model for the procurement of bus and rail services
- continue the procurement of the 2nd tranche of 35 new Matangi trains
- continue the *Last Choice* and *Mind the Gap* road safety campaigns
- continue to support the *School Travel Plan programme* and deliver *Movin'March* in partnership with TAs
- continue the *Be Safe – Be Seen* road safety campaign
- continue *Active a2b* programme
- continue motorcycle safety initiatives in partnership with TAs and Police
- continue quarterly Regional Road Safety Coordinator Forums
- continue cyclist skills training programme *Pedal Ready* supported by Road Safety Trust and KiwiSport
- continue bus drivers/cyclists workshops with Cycling Advocates' Network and bus operators
- continue the Cycling and Walking Journey Planner and Let's Carpool website
- coordinate *Spring to the Street* commute challenge

- commence construction of Transmission Gully Expressway
- commence Melling interchange efficiency improvements investigation
- commence detailed planning and design of a Bus Rapid Transit system through the Wellington City PT spine
- commence comprehensive Kapiti bus service review
- commence implementation of the business case for integrated fares and ticketing

Appendix – Updated census data

Introduction

In 2013 a national census was conducted in New Zealand for the first time since 2006, having been delayed from 2011. A number of indicators in the Annual Monitoring Report for the regional Land Transport Strategy use census data. The indicators which use the census data and are not otherwise included in this report (key outcomes) have therefore been updated. The additional indicators are listed below and a chart with commentary is provided in this appendix:

- Population
- Population age distribution
- Occupied dwellings
- Unemployment
- Vehicle ownership per household
- Travel to work mode distribution
- People working from home by territorial authority

Indicators

Population

Figure I.1 shows the population of the Wellington region by district. The 2013 census counts found that around 471,300 people lived in the Wellington region, with 41% living in Wellington City, 21% in Hutt City, 11% in Porirua City, 10% in Kapiti District, 9% in Upper Hutt City and 9% in Wairarapa.

The population change by district and region between the 1996 and 2013 census years is shown in Table I.1. Regional population growth was a moderate 2% between 1996 and 2001, with growth concentrated in Kapiti Coast District and in Wellington City.

Regional population growth accelerated to 6% between 2001 and 2006 and 5% between 2006 and 2013. All areas experienced population growth in both periods, with Wellington City again accounting for the lion's share. Growth remained strong in Kapiti Coast District, though slowing from earlier growth rates. A noticeable upturn was seen in the growth rate in Upper Hutt City over the 2001 to 2013 period. In the latest period, 2006 to 2013, Porirua City and the Wairarapa also showed a strong upturn, each with 7% growth. Between 2006 and 2013, the regional population increased by 22,370 or 5%, and growth was more evenly spread across the areas than in earlier periods.

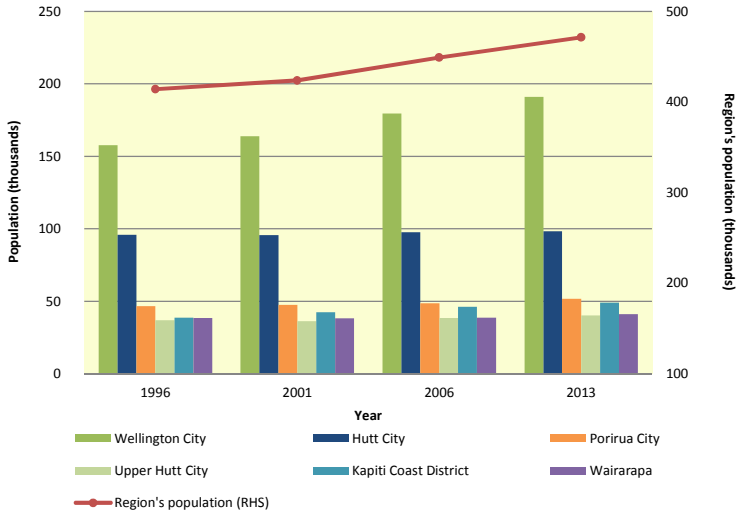

Figure I.1: Population by district and region

Source: Statistics New Zealand census data

District	1996 to 2001		2001 to 2006		2006 to 2013	
	Actual change	% change	Actual change	% change	Actual change	% change
Wellington City	6,100	4%	15,640	10%	11,490	7%
Kapiti Coast District	3,860	10%	3,750	9%	2,910	7%
Upper Hutt City	-340	-1%	2,040	6%	1,760	5%
Porirua City	740	2%	1,180	2%	3,170	7%
Hutt City	-390	0%	2,220	2%	540	1%
Wairarapa	-300	-1%	400	1%	2,510	7%
Wellington Region	**9,680**	**2%**	**25,240**	**6%**	**22,370**	**5%**

Table I.1: Population growth and growth rates by district

Source: Statistics New Zealand census data

Note: numbers have been rounded to the nearest 10.

Population age distribution

The population distribution by age group in the Wellington region is shown in Figure I.2 for the four census years 1996 to 2013. It can be seen that there is a flat trend for the two youngest age groups, covering ages up to 39 years. There is an upward trend in the oldest age group (65 and over) but the strongest growth by far is in the group aged between 40 and 64 years.

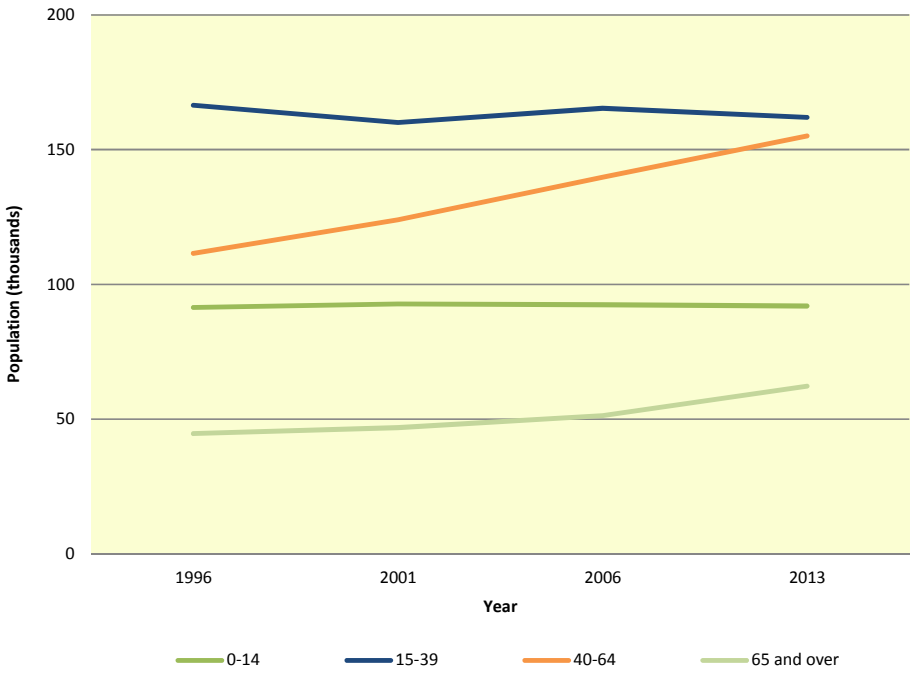

Figure I.2: Population age distribution, Wellington region

Source: Statistics New Zealand census data

Occupied dwellings

The numbers of occupied dwellings by district and region, collected in the New Zealand census, are shown in Figure I.3. The total number of occupied dwellings in the region in 2013 was 177,800, which was higher than in the 2006 census by nearly 8,500 or 5%. This followed increases of around 5% and 7% in the 1996 to 2001 and 2001 to 2006 periods, respectively.

Around 40% of the region's occupied dwellings were in Wellington City and 20% in Hutt City. Between 2006 and 2013, all of the areas saw an increase in the number of occupied dwellings. Porirua City had the strongest growth of 11%, followed by Wairarapa with 10% and Kapiti Coast District with 8%. The largest absolute increase was in Wellington City, with an increase of 2,900 occupied dwellings (5% growth).

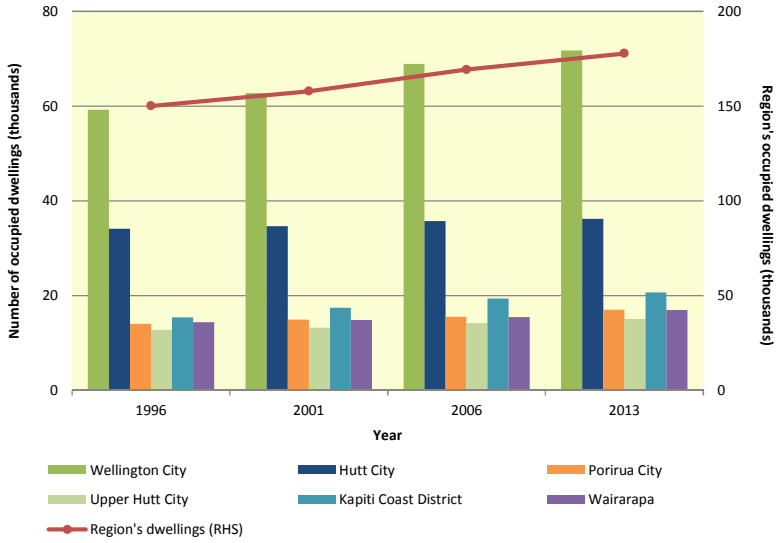

Figure I.3: Occupied dwellings by district and region

Source: Statistics New Zealand census data

The average number of people per occupied dwelling in the past four censuses are shown in Table I.2. In 2013 the average number of persons per occupied dwelling was 2.7, the same as in 2006 and 2001. The number has consistently been highest in Porirua City area, although it has fallen in each consecutive census from 3.3 in 1996 to 3.0 in 2013. The lowest average in 2013 was 2.4 in both Kapiti Coast District and Wairarapa.

District	Number of persons per occupied dwelling			
	1996	2001	2006	2013
Wellington City	2.7	2.6	2.6	2.7
Kapiti Coast District	2.5	2.4	2.4	2.4
Upper Hutt City	2.9	2.7	2.7	2.7
Porirua City	3.3	3.2	3.1	3.0
Hutt City	2.8	2.8	2.7	2.7
Wairarapa	2.7	2.6	2.5	2.4
Wellington Region	**2.8**	**2.7**	**2.7**	**2.7**

Table I.2: Average number of persons per occupied dwelling by district

Source: Statistics New Zealand census data

Unemployment

Figure I.4 shows the unemployment rate as a percentage of labour force for the census usually resident population aged 15 years and over, by district and region. Unemployment rates fell in 2001 and 2006, but rose in 2013. The rate in 2013 was 7.2%, just below the 7.5% rate of 1996. The absolute number of unemployed was around 18,300 in 2013 compared to 16,000 in 1996, and 12,750 in 2006). The districts all followed the same pattern as the region. Throughout the period the highest unemployment rate was in Porirua, and in 2013 was 9.3%. The lowest unemployment rates in 2013 were in Wairarapa (6.4%) and Wellington City (6.5%).

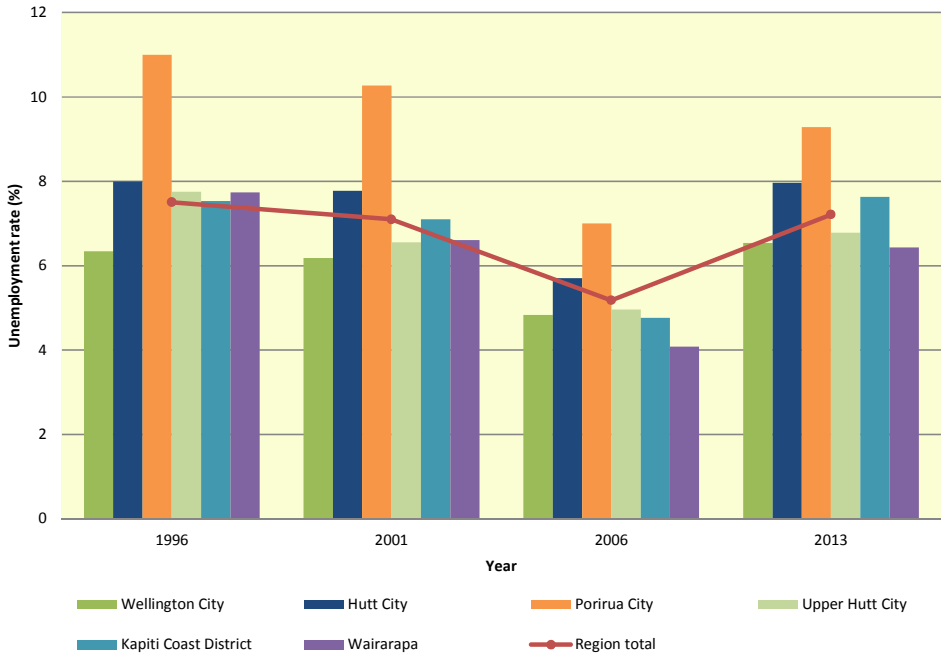

Figure I.4: Unemployment rate by district and region

Source: Statistics New Zealand census data

District	Unemployment rate in 2013 (%)
Wellington City	6.5
Hutt City	8.0
Porirua City	9.3
Upper Hutt City	6.8
Kapiti Coast District	7.6
Wairarapa	6.4
Region	7.2

Table I.3: Unemployment rate by district and region, 2013

Source: Statistics New Zealand census data

Vehicle ownership per household

Figure I.5 shows the average number of cars per household by district and region. The average for the region increased between 1996 and 2006 from 1.37 to 1.50 but in 2013 there was a marginal fall to 1.49. In 2013 households in Wairarapa had the highest car ownership rates at 1.66, followed by Porirua City and Upper Hutt City each with 1.64. The lowest car ownership has consistently been in Wellington City, with 1.35 in 2013.

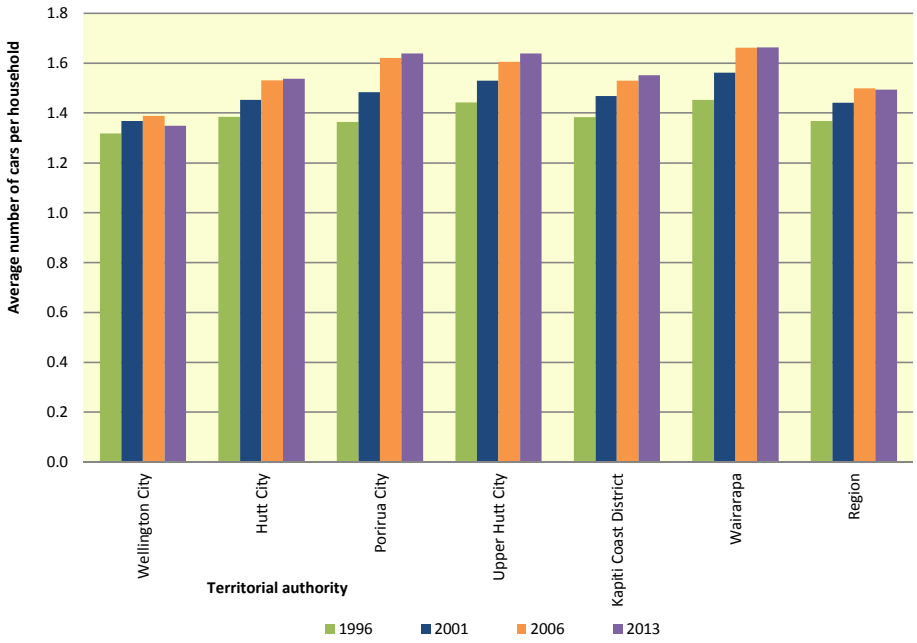

Figure I.5: Average car ownership per household by district and region

Source: Statistics New Zealand census data

The trend in average car ownership per household has been upwards in every district over the period shown, with the notable exception of Wellington City where growth reversed in 2013 and there was a fall from 1.39 to 1.35. This is particularly significant as Wellington City accounted for 40% of the region's total car ownership in 2013.

District	Vehicle ownership per household in 2013 (%)
Wellington City	1.35
Hutt City	1.54
Porirua City	1.64
Upper Hutt City	1.64
Kapiti Coast District	1.55
Wairarapa	1.66
Region	1.49

Table I.4: Vehicle ownership per household by district and region, 2013

Source: Statistics New Zealand census data

Mode of journey to work

Figure I.6 shows the main means of travel to work across all modes for the regional population on census day. The following definitions of modes have been collated from the New Zealand census categories:

- Motor vehicle: drove private car, truck or van; drove company car, truck or van; passenger in car, truck or van or company bus; motorcycle or power cycle
- Public transport: public bus; train
- Active modes: walked or jogged; bicycle
- Other: e.g. taxi, ferry, plane

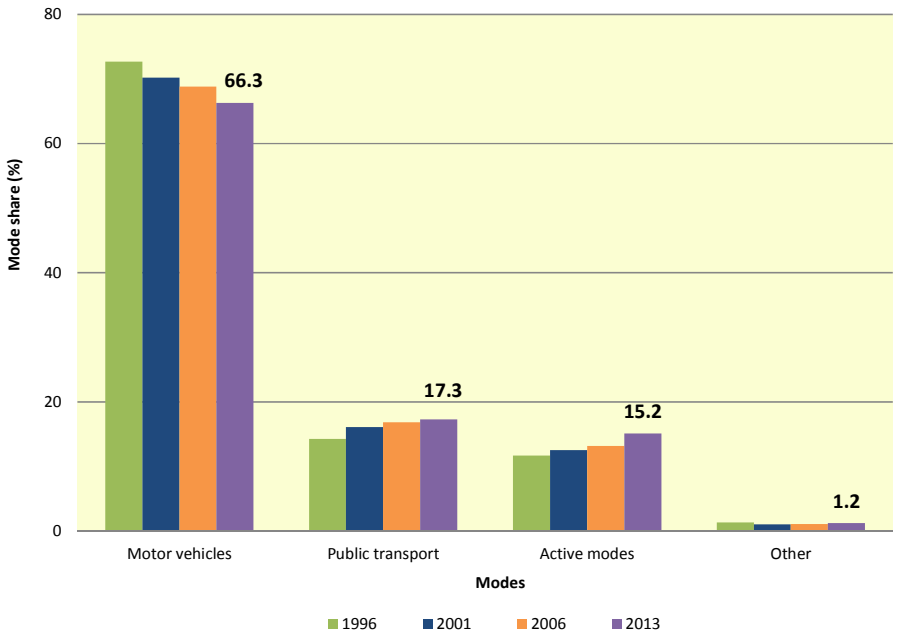

Figure I.6: Travel to work mode share, Wellington region

Source: Statistics New Zealand census data

Over the period 1996 to 2013 there has been a clear trend in the reduction of trips to work by motor vehicle, from 73% to 66%. However, there was an increase in the total number of motor vehicle trips of about 5,400 or 4% over this period.

Both active mode and public transport mode share consistently increased over the 1996 to 2013 period. Active mode share increased from 13% to 15%, with active mode trips increasing by around 9,500 over this time. The increase in active mode trips has been due mostly to increases in the number of trips walked or jogged, accounting for 8,000 of the 9,500 total, the remainder being due to increased cycling. Public transport trips increased from 14% to 17%, with the number of trips increasing by around 9,300. The number of trips by both public bus and train increased over this time, 34% and 49% respectively.

Work from home

Figure I.7 shows the percentage of people in employment who worked from home on census day, by district and region. In 2013, 6.9% of the region's population who worked on census day worked from home. This rate has varied between 6.1% and 6.8% in the previous census counts shown.

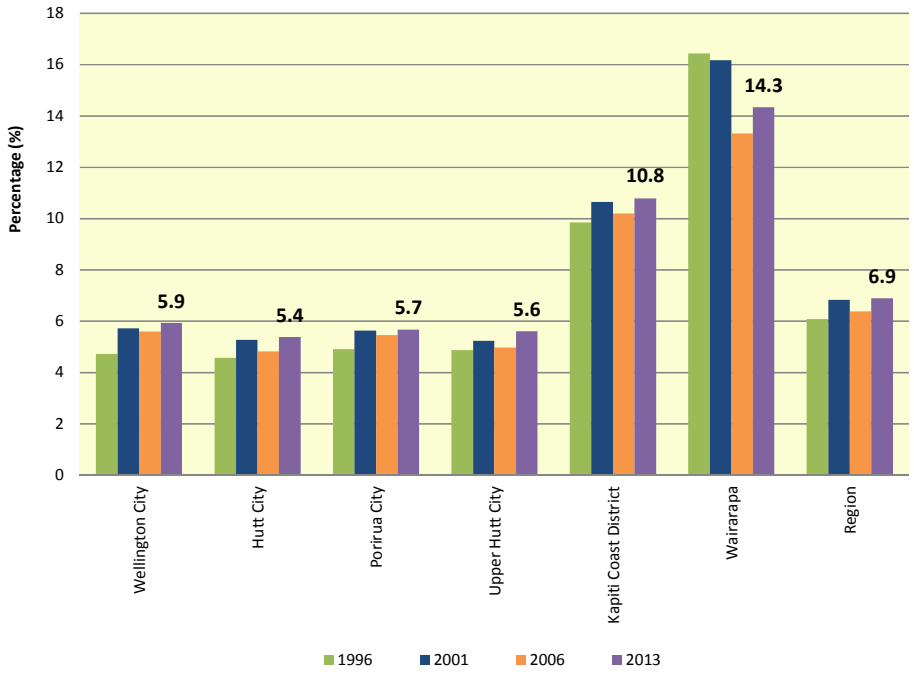

Figure I.7: Proportion of people working from home, by district and region

Source: Statistics New Zealand census data

Wairarapa and Kapiti have the largest proportion of workers working from home at 14.3% and 10.8% in 2013 respectively. Most of the districts have seen an increase in the proportion of workers working from home between the 1996 and 2013 census. The notable exception is Wairarapa which has exhibited a falling trend, albeit from the highest rate.

Glossary

AM	Morning Peak
AMR	Annual Monitoring Report
BERL	Business and Economic Research limited
CARD	Communications and Resource Deployment system
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	Inter Peak
km	Kilometres
kph	Kilometres per hour
mins	Minutes
NITIS	National Integrated Ticketing Interoperability Standard
NLTP	National Land Transport Programme
NZ Transport Agency	New Zealand Transport Agency
PM	Afternoon Peak
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
VKT	Vehicle kilometres travelled
WRS	Wellington Regional Strategy