

RLTS target assessment

March 2010

Purpose

To inform the development of the 2010-2040 Wellington Regional Land Transport Strategy (RLTS) by analysing the outcome targets in the current 2007-16 RLTS. This analysis takes into account recent trend data and national level target and data availability.

Objectives

1. Define an appropriate timeframe for the targets
2. Identify relevant New Zealand Transport Strategy 2008 targets to each RLTS outcome
3. Identify relevant Transport Monitor Indicator Framework indicators for each RLTS target
4. Assess RLTS target compatibility, measurability and usefulness
5. Make recommendations for any alterations to current RLTS targets.

Background

This assessment is being conducted in the context of the review of the current 2007-16 RLTS for the Wellington region. Section 74 of the amended Land Transport Management Act 2003 (LTMA) mandates each regional council to produce a RLTS for that region. The current Wellington RLTS is in force only until July 2010 when the new strategy will have to be adopted (Land Transport Act 1998, s. 176).

The scope of this review process is mostly limited to meeting the content requirements of the amended LTMA. A separate report sets out that the current RLTS is broadly consistent with national policy direction as detailed in the New Zealand Transport Strategy 2008 (NZTS) and the Government Policy Statement on land transport funding 2009/10 – 2018/19 (GPS).

The RLTS provides a policy framework for investment in land transport infrastructure and activities with a planning horizon of at least 30 years. The current RLTS contains outcome targets out to 2016 and a vision statement out into the indefinite future.

The NZTS contains national level targets out to 2040, but these targets have not been 'regionalised' to detail the expected contribution of the Wellington region to the achievement of those NZTS targets. The Ministry of Transport's (MoT) Transport Monitoring Indicator Framework version 2 (TMIF) is designed to track progress towards the NZTS targets with national level information that is sometimes available at a regional level. The current GPS does not contain medium term targets, but instead has '*impacts*' which are similar to desired medium term outcomes.

Section 77(k) of the amended LTMA 2003 states that the RLTS must contain ‘measurable targets to be achieved’ in meeting the outcomes of the strategy.

Target assessment

This section details the analysis of the 2007-16 RLTS targets.

Target timeframe

The first objective is to define an appropriate target timeframe.

There are three possibilities for target timeframes in the new RLTS – maintaining the 2016 timeframe, extending targets out to 2020 and developing 2040 targets. Each option has its advantages and disadvantages as well as varying levels of work necessary to complete.

Maintaining the 2016 target timeframe limits the changes during this review to just an assessment of the appropriateness of the target itself. This timeframe has the advantage of covering the life of the RLTS until its next review, allowing the clearest assessment of whether or not the strategy will have been successful in meeting its targets. The main disadvantage is that it is the least aligned with the 30 year outlook of the new RLTS and focuses policy attention on the short term in a long term strategy.

Extending targets out to 2020 will require further analysis. The principle advantage is that these extended targets would be more aligned with the funding process of the regional land transport programme (RLTP) and the budgetary processes of the regional and local councils’ Long Term Council Community Plans (LTCCP). It would also be more in keeping with the new 6 yearly RLTS review process. The main disadvantage is that little work has been done on what an appropriate 2020 target would be – given the abbreviated RLTS review schedule.

Developing 2040 targets would require extensive work to determine the appropriate regional contribution to NZTS long term targets. The primary advantage is that these new targets would be very well aligned with the NZTS. It also reflects the new longer term outlook of the new RLTS. The main disadvantage is that a 30 year outlook makes quantifying a target and assessing it’s adequacy with confidence very difficult, and it could be argued this imbues less accountability in meeting the target.

Preferred target timeframe

The preferred target timeframe is to 2020.

Modelling work conducted for the *Strategic Options Assessment* paper provides some guidance around a potential range of possibility for several targets by 2020. There are too many assumptions in the model runs for them to be an accurate guide for 2040 targets.¹

¹ For further insight as to the range of significant inputs and futures scenarios refer to *RLTS Modelling Report* which was created for this RLTS review.

Long term targets would necessarily be too vague to be of the best use. Variables such as population and economic changes, as well as vehicle fleet makeup and infrastructure investment are best understood in the short term. Short term targets also provide more accountability for meeting the targets as well as clearer focus on the measures necessary to do so.

2020 targets is the most favourable balance between the long term outlook of the RLTS and short term accountability in meeting the targets.

Target review

Each target has been reviewed to answer the following questions:

1. Is the target the right measure for the outcome and is it adequately measurable?
2. Is the targeted change ambitious but realistic?

The analysis is organised according to the RLTS key or related outcomes. Each analysis section identifies the relevant NZTS national target and the corresponding TMIF indicators, as well as the extent of available TMIF information. Not all related TMIF indicators are listed.²

Data on the current trends of each RLTS outcome is provided by Greater Wellington's Annual Monitoring Report 2008/09 (AMR). Each section ends with some commentary on how the RLTS target may be altered to take into account compatibility with national targets and indicators, or current regional trends.

Key Outcomes

The 2007-16 RLTS contains seven key outcomes:

1. Increased peak period public transport mode share
2. Increased mode share for pedestrians and cyclists
3. Reduced greenhouse gas emissions
4. Reduced severe road congestion
5. Improved regional road safety
6. Improved land use and transport integration
7. Improved regional freight efficiency.

These are supported by 'stretch' targets out to 2016. The stretch targets were developed to take account of the aspirations set out in the Vision chapter, and be ambitious but not outside the realm of possibility if all circumstances are favourable.

² For complete list of TMIF indicators see: <http://www.transport.govt.nz/ourwork/TMIF/Pages/default.aspx>.

Outcome 1.1 – Increased peak period passenger transport mode share

2016 RLTS stretch target	25 million peak period trips per annum 21% of all region wide journey to work trips
NZTS national target	Increase use of PT to 7% of all trips by 2040 (from 111 M boardings in 06/07 to more than 525 M boardings in 2040)
TMIF Indicators	TV020 Total PT boardings (regional data available) TP003 PT mode share of all trip legs (national data only) TP006 Mode share for journey to work (regional data available) TP007 Mode share for journey to school (regional data available)

Table 1: RLTS Outcome 1.1 target breakdown and TMIF data availability

Is it the right measure?

There is general alignment between the RLTS stretch target and the NZTS national target as both seek to significantly increase public transport use. Neither the NZTS target nor the TMIF indicator set separates peak travel from all day travel. The current RLTS stretch targets are measurable by ‘how much and when’ and directly relate to the peak travel period.

Given the current government signals about emphasis on congestion relief, a target around peak period public transport mode share is more consistent than one around percentage of all trips. The RLTS targets are therefore considered the appropriate measures and no change is needed.

Is the target right?

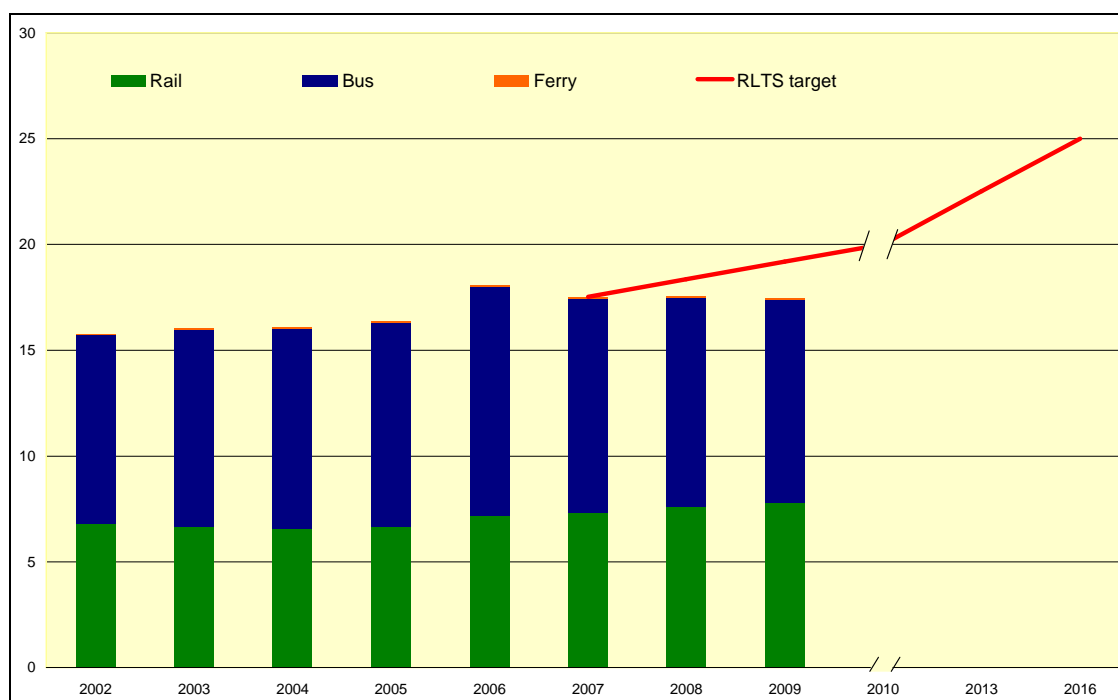


Figure 1: Total public transport trips per annum (M), combined peak periods. Source: GWRC

Peak period public transport patronage has been flat over the past three years at about 17.5 million trips per annum. This is primarily due to fuel costs having gone down, the recent economic downturn, and the 2008 public transport fares increase. The data also shows a longer term trend of flat peak patronage from 2002 to 2005, a big jump in 2006 (due primarily to high fuel prices) followed by a stabilisation of patronage numbers at a new, higher level.

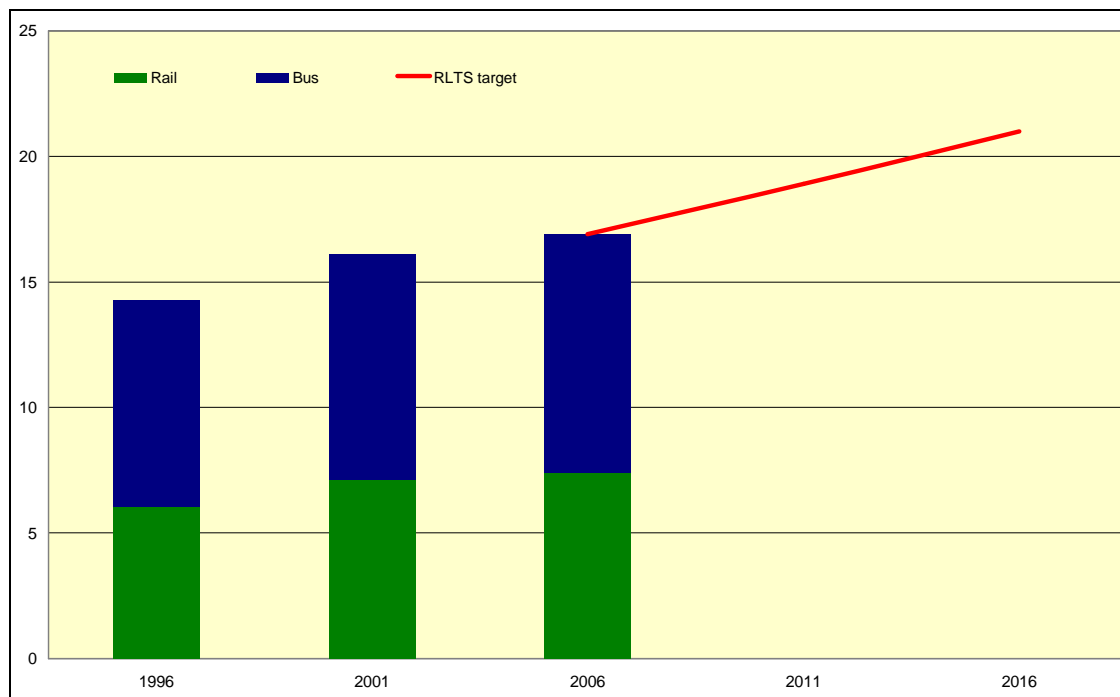


Figure 2: Region wide journey to work trips by PT (%). Source: Statistics New Zealand

Peak period public transport mode share of journey to work trips has been steadily increasing over the past two NZ Census periods, demonstrating a clear long term trend. Public transport made up 17% of all journey to work trips in 2006, up from 16% in 2001.

Significant factors influencing this outcome include public transport fare increases, fuel price changes, network reliability and capacity issues. Looking to 2020 we expect that the following planned improvements will attract increased patronage:

- New trains and rail network upgrades
- Urban rail extension to Waikanae
- Bus priority measures by Wellington City Council
- More new trolley buses and larger bus replacements
- Real time information.

Achievement of the target is also influenced by the level of growth in the Wellington region. The RLTS targets were considered unrealistic to 2016, and even by 2020 modelling work done for the strategic options assessment indicates that 25 million peak passenger trips is highly unlikely.

The impacts of the committed improvements make it possible to achieve significant gains. However, the target is recommended to be lowered to 23 million trips by 2020. This brings the target in line with growth trends – which is between the high and medium modelling projections for public transport use.

The target for 21% mode share for public transport is recommended to stay the same, as it measures a long term trend in overall usage of all transport modes. This target is not solely tied to fluctuations in public transport usage. The mode share of public transport is subject to changes in rates of usage of other modes – namely private vehicle, walking and cycling.

Achievement of both targets will require further investment.

Outcome 2.1 – Increased mode share for pedestrians and cyclists

2016 RLTS stretch target	Active modes account for at least 15% of region wide journey to work trips
NZTS national target	Increase active mode use to 30% of all trips in urban areas by 2040
TMIF Indicators	TP005 Walking and cycling and other active modes' share of total trips by residents of urban areas (regional data available) TP008 % of road based short trips <5km by bike (no data available) TP009 % of short trips <2km on foot (no data available)

Table 2: RLTS Outcome 2.1 target breakdown and TMIF data availability

Is it the right measure?

There is general alignment between the RLTS stretch target and the NZTS national target in that both seek to significantly increase active mode share of travel. The outcome does not specify peak period travel while the RLTS stretch target measures peak period journey to work trips. The NZTS and TMIF measure all day trips.

Regional TMIF data is available from MoT's Ongoing Household Travel Survey but as a four year moving average, while the journey to work data is from the NZ Census. While using the NZ Census data as an indicator means that only active mode journey to work trips can be measured, the Census is a much larger data set than MoT's Survey and changes in TMIF reporting methodology inhibit the identification of long term trends in travel behaviour with confidence. The RLTS stretch target is measurable by 'how much and when' using the more definitive NZ Census number.

No change is therefore recommended to this target out to 2020.

It is also recommended that a new RLTS target be created around TMIF indicator TP005. This will increase alignment with the NZTS and TMIF as well as provide a measure of active mode usage as well as mode share – as is already the case with RLTS peak public transport targets.

Is the target right?

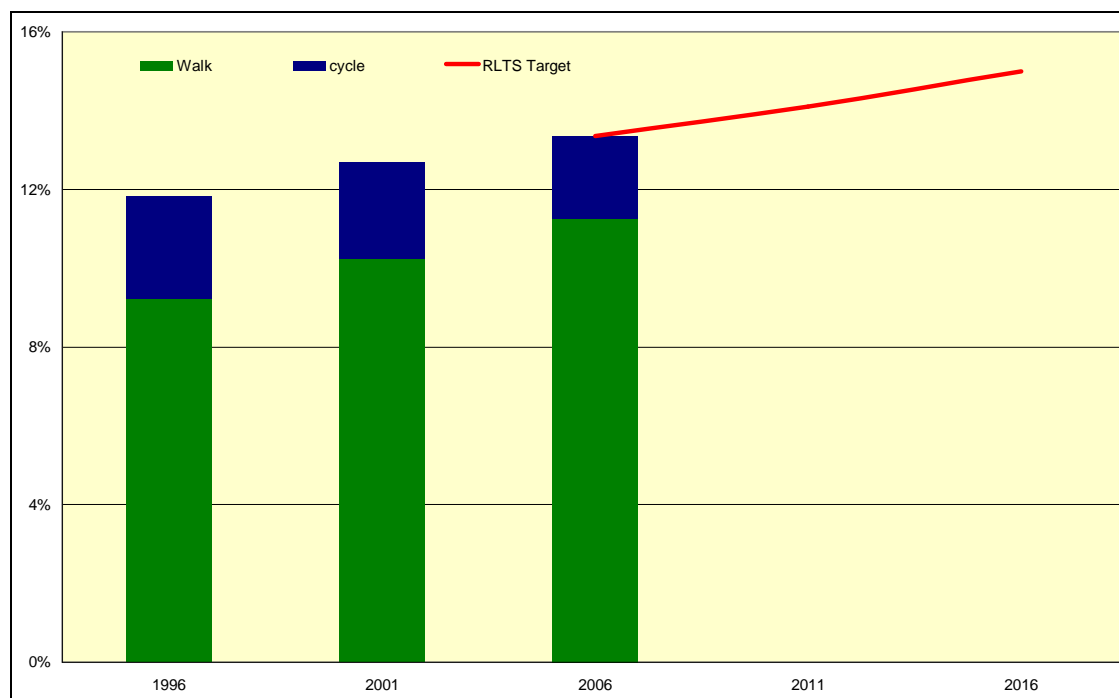


Figure 3: Active mode journey to work trips (%). Source: Statistics New Zealand

Active mode journey to work trips have been steadily increasing over the prior two census periods, 13% in 2006, up from 12.6% in 2001. Most of the growth has occurred in Wellington City. If this historic trend continues, the RLTS stretch target may be achieved.

Significant factors that influence this outcome include the actual and perceived level of service and safety of walking and cycling as well as the provision for dedicated footpaths and cycleways. Strong implementation of the Regional Walking, Cycling, and Road Safety Plans should improve the quality of these networks and increase active mode share of journey to work trips.

Continued investment in active modes throughout the region is expected to maintain the active mode share trend. Extrapolating this trend out to 2020 indicates that a new targeted amount would be justified. It is recommended that the target be amended to 'active modes account for at least 16% of region wide journey to work trips.'

The recommended new 2020 RLTS target is 'increase active mode use to 30% of all trips in urban areas.' The figures are four year moving averages. For the Wellington region the figure for 2003-07 was 23% active mode use and 25% for 2004-2008 – a 2% increase. The limited timeframe of the data means no clear trends can be extrapolated. The 30% figure for 2020 indicates an aspiration for the Wellington region that is consistent with the TMIF data but subject to investment in improvements to walking and cycling activities.

Outcome 3.1 – Reduced greenhouse gas emissions

2016 RLTS stretch target	Transport generated CO ₂ emissions remain below 1,065 Kt per annum
NZTS national target	Halve per capita GHG emissions from domestic transport by 2040 relative to 2007 Reduce the rated CO ₂ emissions per km of combined average new and used vehicles entering the light vehicle fleet to 170g CO ₂ per km by 2015, with a corresponding reduction in average fuel used per kilometre
TMIF Indicators	EI001 Tonnes of CO ₂ equivalent emissions from domestic transport by mode (partial data) EI002 Grams of CO ₂ per km driven for vehicles entering the light vehicle fleet (regional available) EI003 Tonnes of CO ₂ and tonnes of CO ₂ equivalent emitted from domestic transport per VKT by mode (partial data) EI004 Tonnes of CO ₂ and tonnes of CO ₂ equivalent emitted from domestic transport per capita (partial data)

Table 3: RLTS Outcome 3.1 target breakdown and TMIF data availability

Is it the right measure?

The RLTS stretch target is based on keeping CO₂ emissions from the Wellington regional vehicle fleet at 2001 levels. The NZTS national target for domestic transport is to halve greenhouse gas emissions per capita relative to 2007. Since the NZTS expects travel demand to roughly double (NZTS, page 25), this corresponds to the RLTS stretch target of ‘holding the line’ at 2001 levels despite growing travel demand. Only partial data is available from the TMIF but no data has yet been published, except for EI002.³

The Ministry of Economic Development is investigating methods to determine how much of the fuel sold is actually used on the transport network as opposed to other purposes (i.e. portable generators) to better measure transport-related greenhouse gas emissions from fuel sale data. The TMIF measures emissions over quite a range of criteria, but the data collection method is very similar.

If and when the Ministry of Transport updates its collection methodology, it is recommended that GWRC updates methodology along similar lines. Given that the collection methodology may change, having a numeric value target might not be the most appropriate.

It is recommended that the target be altered to read ‘transport generated CO₂ emissions will be maintained below year 2001 levels’. This is the same target, but allows for changes in reporting methodology to be easily incorporated into target measurement.

³ As at 23 February 2010.

Is the target right?

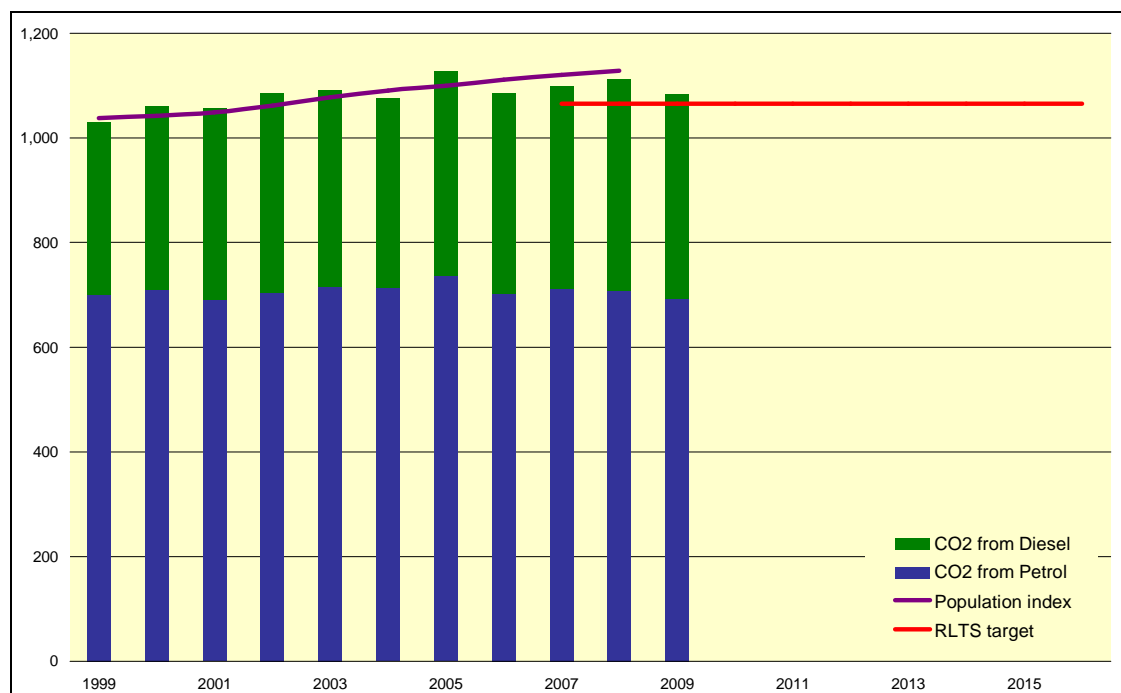


Figure 6: Transport-generated CO₂ (kilotonnes), Wellington region with population index. Sources: local authorities; MoT VFEM 2005; Statistics New Zealand

CO₂ emissions from both diesel and petrol sold in the Wellington region fell from 1,113 kT total in 2008 to 1,084 kT in financial year 2009. This represents an overall static long term trend, despite growing population and consequent travel demand.

Significant factors influencing this outcome include population and economic growth, average age of the vehicle fleet, fuel economy of the vehicle fleet (especially Heavy Commercial Vehicles), and the adoption rate of alternative fuels. These factors are outside the region's control, but are things we can advocate for where appropriate.

No change is recommended to the target year at which greenhouse gas emissions are desired to be held.

Outcome 4.1 – Reduce severe road congestion

2016 RLTS stretch target	Average congestion on selected roads will remain below 20 seconds delay per km travelled
NZTS national target	Reduce average journey times
TMIF Indicators	NR001 Network congestion (road, rail, port) (no data available) NR002 Reliability of travel time (delay/km) (partial data) NR003 % variability of travel time (road, rail, maritime, aviation) (partial data)

Table 4: RLTS Outcome 4.1 target breakdown and TMIF data availability

Is it the right measure?

There is broad alignment between the RLTS stretch target and the NZTS national target as both seek improved travel times. With anticipated growth in travel demand, keeping congestion below current levels will have a positive effect on journey times consistent with the intent of the NZTS target. The TMIF indicators and the RLTS stretch target indicator both use the same data provided by the New Zealand Transport Agency (NZTA).

The current RLTS target is measurable as a ‘hold the line’ target over time. No change is needed to this measure out to 2020.

Is the target right?

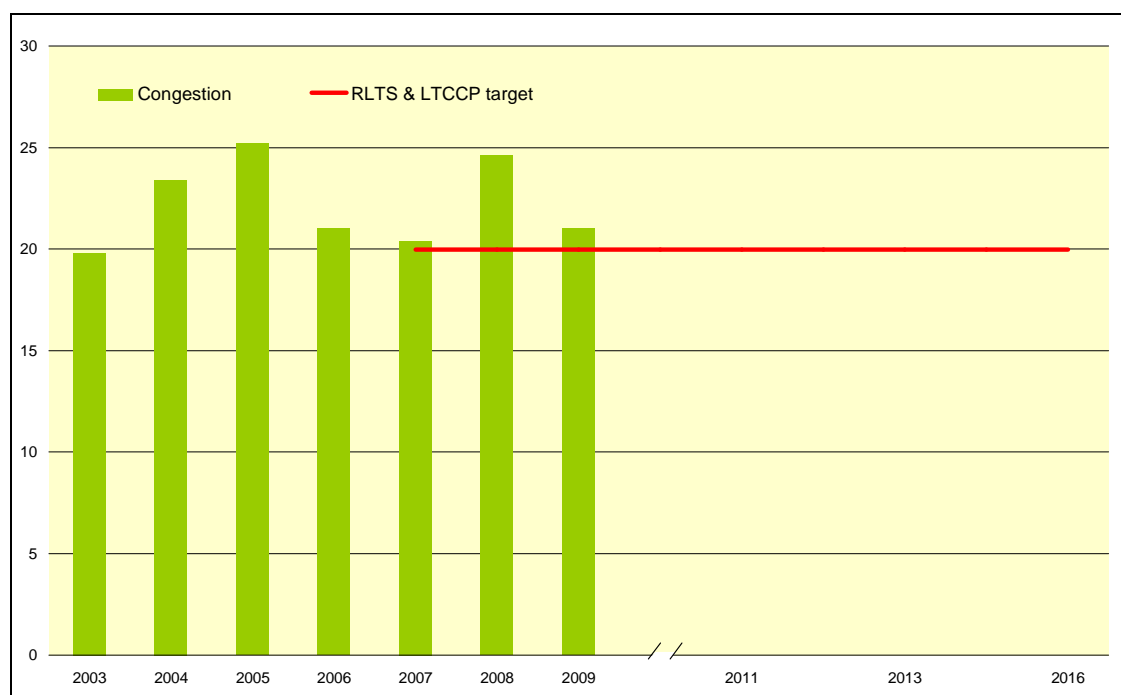


Figure 7: All day average congestion (seconds delay/km travelled), Wellington region, March. Source: NZTA

Congestion spiked in 2008 to 24.6 seconds delay per kilometre travelled. In 2009, congestion levels returned to the level that it was in 2006 and 2007 (21.0 seconds delay/km travelled).

Significant factors influencing this outcome include economic and population growth, use of other modes for commuter trips and use of local roads for local traffic. Many of the projects and activities listed in the corridor plans and the Regional Land Transport Programme 2009-2012 are expected to have a positive impact on travel times.

The targeted change is potentially achievable. There is a possibility that the indicators used to measure this target may change in the future.

It is recommended that the target be altered to ‘average congestion on selected roads will remain below year 2003 levels’ – which is the best performing year in our data. This does not change the target, but allows for greater flexibility of indicator measurement.

Outcome 5.1 – Improved regional road safety

2016 RLTS stretch target	No road crash fatalities attributable to roading network deficiencies
NZTS national target	Reduce road deaths to no more than 200 per annum by 2040 Reduce serious injuries on roads to no more than 1,500 per annum by 2040
TMIF Indicators	SS001 Number of accidents by mode (road, rail, maritime, aviation) (regional data available) SS002 Accidents per capita by mode (road, rail, maritime, aviation) (regional data available) SS003 Number of fatal accidents (road, rail, maritime, aviation) (regional data available)

Table 5: RLTS Outcome 5.1 target breakdown and TMIF data availability

Is it the right measure?

The RLTS stretch target is not very well aligned with the NZTS national target. Roading network deficiencies limits the RLTS target to engineering issues while the NZTS targets relate to total fatal and serious injuries. The TMIF has a range of indicators which are based on statistics that can be found in the Road Safety reports published by the NZTA, which is also the source for Wellington regional data.

A method for monitoring ‘road crash fatalities attributable to roading network deficiencies’ has not yet been developed. However, work is being done to investigate possible and robust measurements for this target.

Politically, any deaths on the road network are unacceptable. Engineering issues are what the Road Controlling Authorities have the most control over. Therefore, a target focusing on road network deficiencies is considered useful by the region.

It is recommended that the current RLTS target be retained.

It is also recommended that a new RLTS stretch target be developed to measure the number of killed and seriously injured in the Wellington region, corrected for indicative Police reporting rates. This will increase alignment with the NZTS and TMIF. The NZTA also publishes information on indicative Police reporting rates in the Road Safety Reports published each year.

Is the target right?

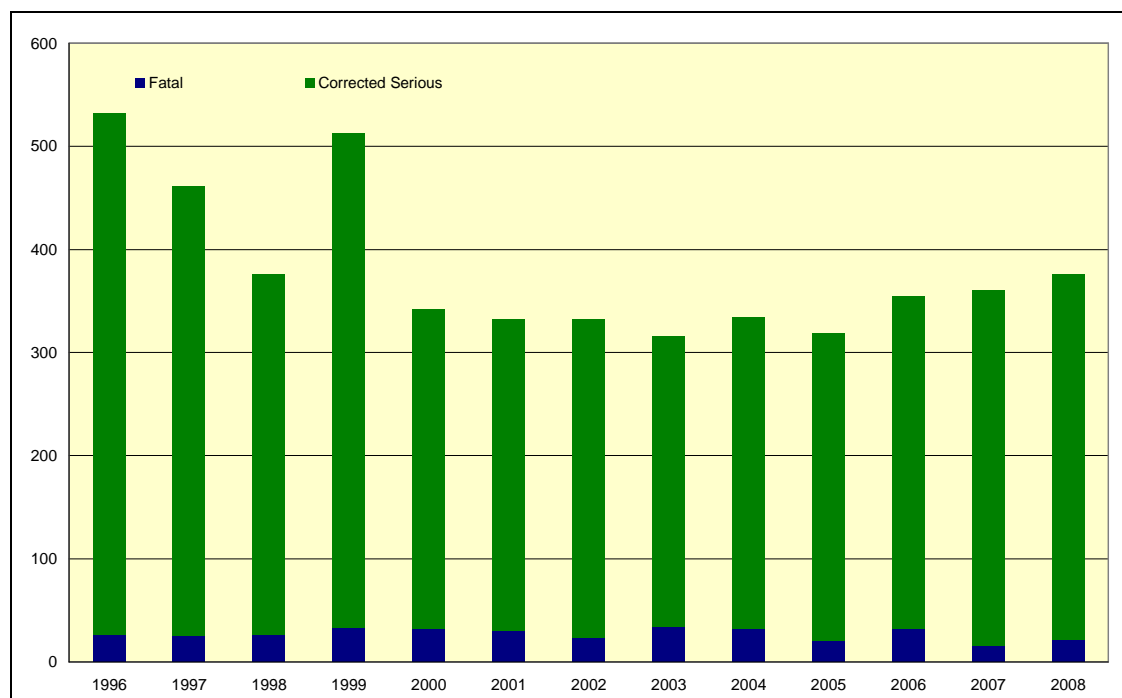


Figure 8: Fatal and serious injury casualties, corrected for Police reporting rates, Wellington region. Calendar year. Source: NZTA

There were 21 road fatalities in 2008, up from 15 in 2007. The serious injury casualties have been corrected for the NZ Police reporting rate and totalled 355 in 2009, up from 345 in 2008. The long term trend has been relatively flat, with a minor dip between 2000 and 2005, and a steady increase afterward. However, significant reductions over a short period of time can be seen in the historical data, especially between 1996 and 2000.

There are numerous significant factors that influence this outcome that are detailed in *Greater Wellington Road Safety Investigation 2008*. These factors include driver behaviour and error, speed and road network issues. The Regional Road Safety Plan details the measures being undertaken by the regional and local councils to improve road safety throughout the region.

Currently, the national target seeks a 50% reduction in all road deaths and serious injuries by 2040.

The *Safer Journeys 2020* strategy does not have a desired ‘achievement’ for a reduction in total deaths and serious injuries. Instead, this national road safety strategy focuses on certain areas such as the safety of young drivers, older New Zealanders and reduced alcohol/drug impaired driving. Overall, the averaged rate of desired improvement across all areas is about 30%.

As the trend in fatal and serious injury crashes is currently increasing, it is recommended that a target be adopted as a signal that the region wishes to see a reversal in the current trend and a move towards our lowest recorded levels of the past ten years.

Due to the sensitivity around deaths and casualties, the wording of this target is very important. It is recommended that the new target be ‘continuous reduction in the number of killed and seriously injured on the region’s roads.’

It is recommended that an indicative target line be set for a 20% reduction over twelve years (or about 6 fewer people killed or seriously injured on the region’s roads each year) which is in line with NZTS nationally targeted reduction rate.

While less than the averaged *Safer Journeys 2020* rate of desired improvement, this is considered appropriate as the *Safer Journeys 2020* strategy targets priority areas nationally. When corrected for Police reporting rates, a 20% reduction will mean reducing the numbers to no more than 300 by 2020.

This is an ambitious target that is still within the realm of possibility – as seen in the historical data.

Outcome 6.1 – Improved land use and transport integration

2016 RLTS stretch target	All large subdivisions and developments include appropriate provision for walking, cycling, and public transport
NZTS national target	None applicable
TMIF Indicators	None applicable

Table 6: RLTS outcome 6.1 target breakdown and TMIF data availability

Is it the right measure?

There are no applicable NZTS national targets or TMIF indicators for improved land use and transport integration. This RLTS outcome is meant to contribute to consistency between the RLTS and the proposed Regional Policy Statement for the Wellington Region 2009.

No change of measure is recommended.

Is the target right?

The target is measurable, but not as an amount by a certain time. GWRC advocates for appropriate provisions for active modes and public transport access to be included as part of all new local development at all appropriate opportunities.

Following discussions with local councils, it was determined that there was no easy way to measure the inclusion of such provisions in new developments – but an assessment of District Plan and other planning documents that guide land use decisions was carried out and can be repeated every 3-5 years. This gives an indication about how well planning documents are providing for these modes.

A minor change is recommended for the 2020 target of ‘all **new** subdivisions and developments include provision for walking, cycling and public transport **as appropriate**’.

This change allows coverage for even small developments where pedestrian or cyclist connectivity could be improved and shifts the emphasis of the target from ‘large subdivisions and developments’ to an ‘appropriate’ provision for walking cycling and public transport. In many cases, a small development is most likely not to affect walking, cycling or public transport accessibility – and therefore, the ‘appropriate’ provision would be none.

Outcome 7.1 – Improved regional freight efficiency

2016 RLTS stretch target	Improved road journey times for freight traffic between key destinations
NZTS national target	None directly applicable
TMIF Indicators	FT005 Freight tonne-km growth compared to GDP growth (no regional data available) NR002 Reliability of travel time (delay/km) (regional data available)

Table 7: RLTS outcome 7.1 target breakdown and TMIF data availability

Is it the right measure?

The NZTS national targets seek to increase inter-regional freight by coastal shipping to 30% of tonne-kilometres, and rail's share of freight to 25% of tonne-kilometres. While these NZTS targets indirectly relate to freight efficiency by distributing the transport burden of freight to other modes, there is little consistency between the RLTS stretch target and the NZTS national targets.

However, signals from the current government and GPS suggest that road freight efficiency is likely to receive more focus in the short-medium term than the NZTS might suggest.

The RLTS stretch target most closely relates to TMIF indicator NR002 Reliability of travel time, although this indicator is not specific to freight movements. The AMR also measures an index of freight movement across multiple modes which relates to TMIF indicator FT004 Freight tonne-kilometre growth (road, rail, maritime, aviation).

This current RLTS target is measurable using travel time data from NZ Transport Agency, although it is unclear what the measure is being compared to.

No change is recommended to 2020.

Is the target right?

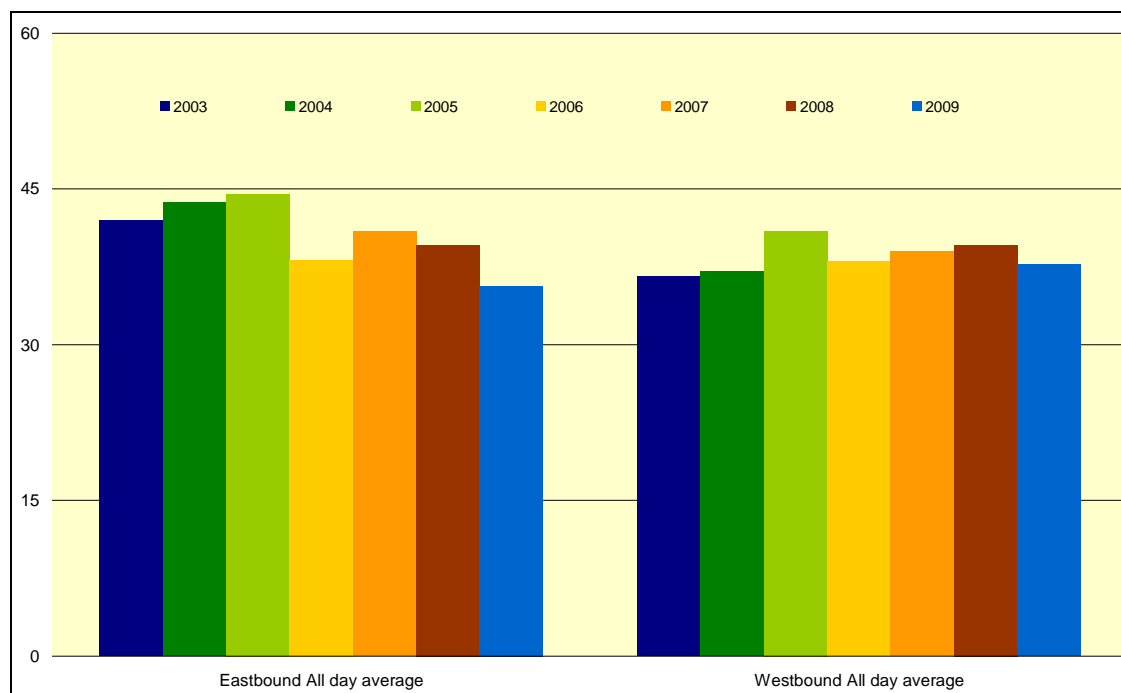


Figure 9: All day average travel time (minutes) on road freight, Route 1 – between Seaview and Porirua via SH58, March. Source: NZTA; GWRC

Eastbound average travel times on Route 1 (between Seaview and Porirua via SH58) have shown a positive overall trend, reducing between 2008 and 2009 from 39.6 minutes to 35.7 minutes. Westbound average travel times have stayed roughly the same overall, reducing from 39.6 to 37.7 minutes between 2008 and 2009.

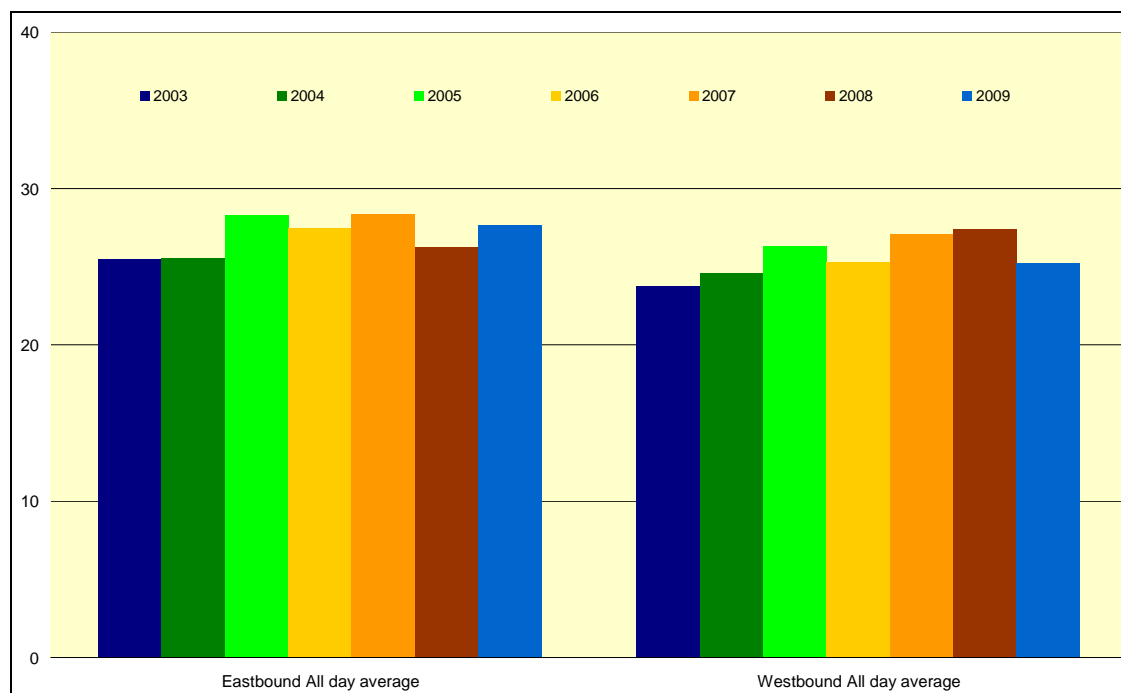


Figure 10: All day average travel time (minutes) on road freight, Route 2 – between Seaview and Porirua via SH1 and SH2, March. Source: NZTA; GWRC

Eastbound average travel times on Route 2 (between Seaview and Porirua via SH1 and SH2) have shown a slight worsening overall trend, increasing between 2008 and 2009 from 26.3 minutes to 27.7 minutes. Westbound average travel times also display a slight worsening overall trend, although decreased from 27.4 to 25.2 minutes between 2008 and 2009.

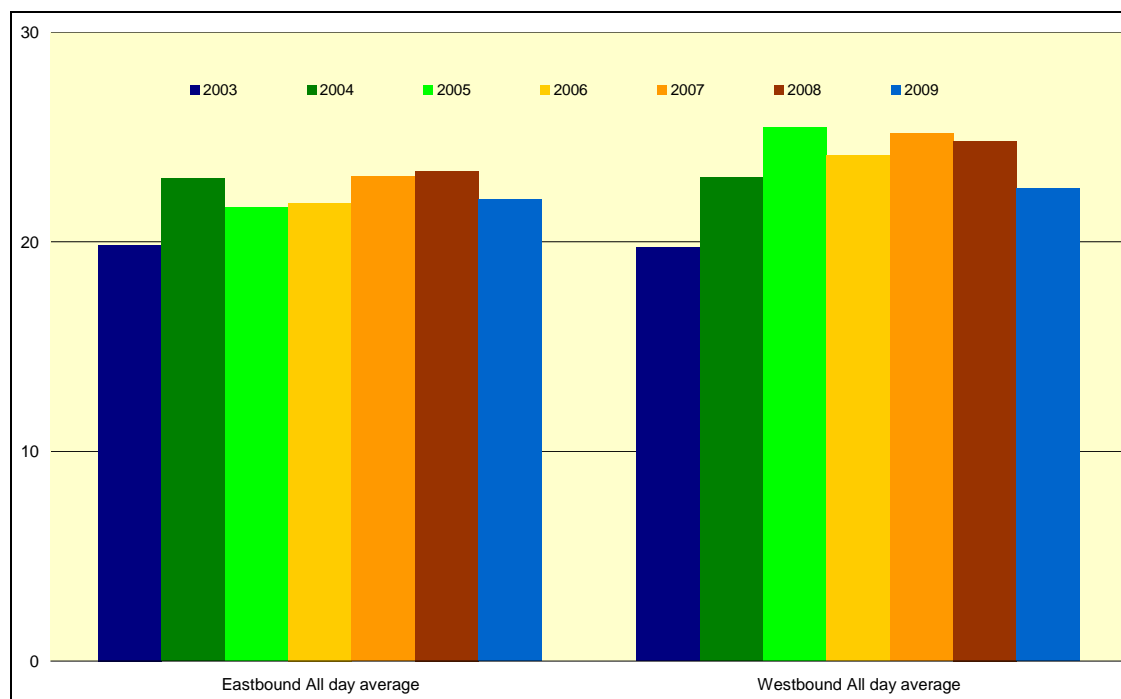


Figure 11: All day average travel time (minutes) on road freight, Route 3 – between Seaview and CentrePort, March. Source: NZTA; GWRC

Eastbound average travel times on Route 3 (between Seaview and CentrePort) have shown a somewhat flat overall trend, reducing between 2008 and 2009 from 23.4 minutes to 22 minutes. Westbound average travel times fluctuated the most with a slight worsening trend, although reduced from 24.8 to 22.5 minutes between 2008 and 2009.

Significant factors influencing this outcome are economic and population growth, road congestion, fuel prices, and network reliability issues. Many of the projects and activities listed in the corridor plans and the Regional Land Transport Programme 2009-2012 should have a positive effect on freight journey times.

Setting a definitive number for average journey times heavily depends on the routes taken and time of day, and would therefore not be useful. Setting a percentage for improvement would involve aggregating travel time changes to an extent where significant problems on a particular route or direction may be masked by small improvements on other routes and directions. For this target, the important measure is the overall trend.

No change is recommended apart from extending the timeline to 2020.

Related outcomes

The following fifteen 2007-16 RLTS related outcomes are identified with the number of the key outcome they relate to.

These targets are designed to signal the need for good progress to be made in each area.

Outcome 1.2 – Increased off-peak passenger transport use and community connectedness

2016 RLTS target	25 million off peak trips per annum
NZTS national target	Increase use of public transport to 7% of all trips by 2040 (from 111 M boardings in 06/07 to more than 525 M boardings in 2040)
TMIF Indicators	TV020 Total PT boardings (regional data available) TP003 PT mode share of all trip legs (no regional data available) TP007 Mode share for journey to school (regional data available)

Table 8: RLTS outcome 1.2 target breakdown and TMIF data availability

Is it the right measure?

The RLTS target for off-peak public transport usage is well aligned with the national NZTS target. The two RLTS outcomes and targets compliment each other to create an approximation of all day public transport trips, which the TMIF does monitor. The TMIF does not distinguish between peak, off-peak, and weekend travel.

The current RLTS target is related to the off-peak travel period and is measurable by ‘how much and when’. The NZ Census does not measure any off peak times for travel mode share, therefore a dedicated survey would need to be developed in order to measure the off peak public transport mode share outcome.

No change is therefore recommended to this measure.

Is the target right?

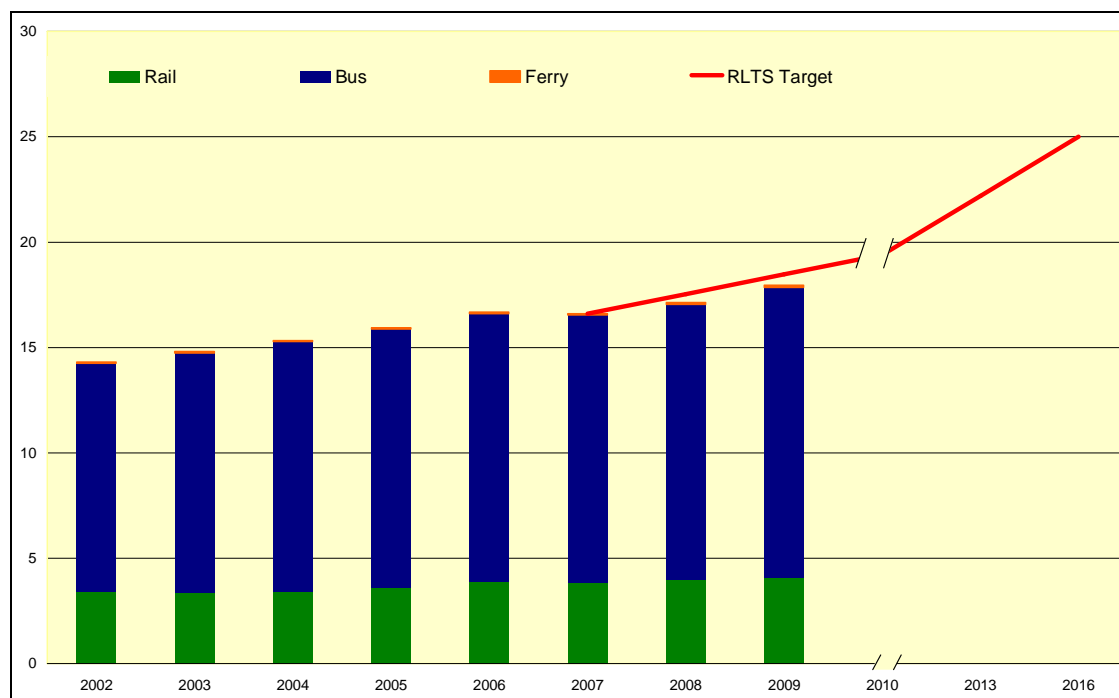


Figure 12: Off-peak passenger trips on public transport (M), source: GWRC

There has been a positive trend in off peak public transport trips, up from 17.1 million trips to 18 million in 2009. This is below the RLTS target line, but is a more positive trend than during the combined peak hours.

Significant factors influencing this outcome and the planned improvements are the same for peak period public transport (see RLTS Outcome 1.1). Added to these is the impact of the SuperGold card which offers free off-peak public transport travel.

Despite the more positive growth, it is recommended that the magnitude of the new 2020 target be set at 23 million – in line with the change made to the peak period public transport target.

Outcome 1.3 – Improved passenger transport accessibility for all

2016 RLTS target	80% of PT services wheelchair accessible Most of region's residents within 400m of PT stop with 30min service frequency PT services more affordable in highest deprivation areas
NZTS national target	None directly applicable
TMIF Indicators	AM015 % of pop living within 500m of bus route (regional data available) AM016 Total mobility boardings per year (no regional data available) AM017 Fully accessible buses and trains, % of total fleet (no data available)

Table 9: RLTS outcome 1.3 target breakdown and TMIF data availability

Is it the right measure?

The RLTS has three targets for improving public transport accessibility for all. While there is no national NZTS target related to these RLTS targets, there are comparable TMIF indicators. The AMR also tracks Total Mobility trips, but there is no target for this RLTS indicator.

The RLTS related target for public transport wheelchair access is measurable by 'how much and when'. No change is recommended to this measure.

The target for population living within 400 metres of a public transport stop with a 30 minute frequency is measurable but vague in terms of the magnitude change desired. The RLTS related target is a more selective measure than the TMIF indicator in that the TMIF measures a greater distance away from the public transport route and puts no constraints on the service frequency of that route.

No change in the measure is recommended.

The RLTS target affordability of public transport services for those living in deprivation areas is measurable but lacks a 'how much and when' point of reference. It also does not capture low or fixed income people living outside deprivation areas. Discussions amongst the technical working group as well as GWRC PT Division officers did not yield an accurate and complete measure for this target. There currently are no fare policies targeting deprivation areas since it is central government's responsibility to provide social services.

It is recommended that the target be removed.

Is the target right?

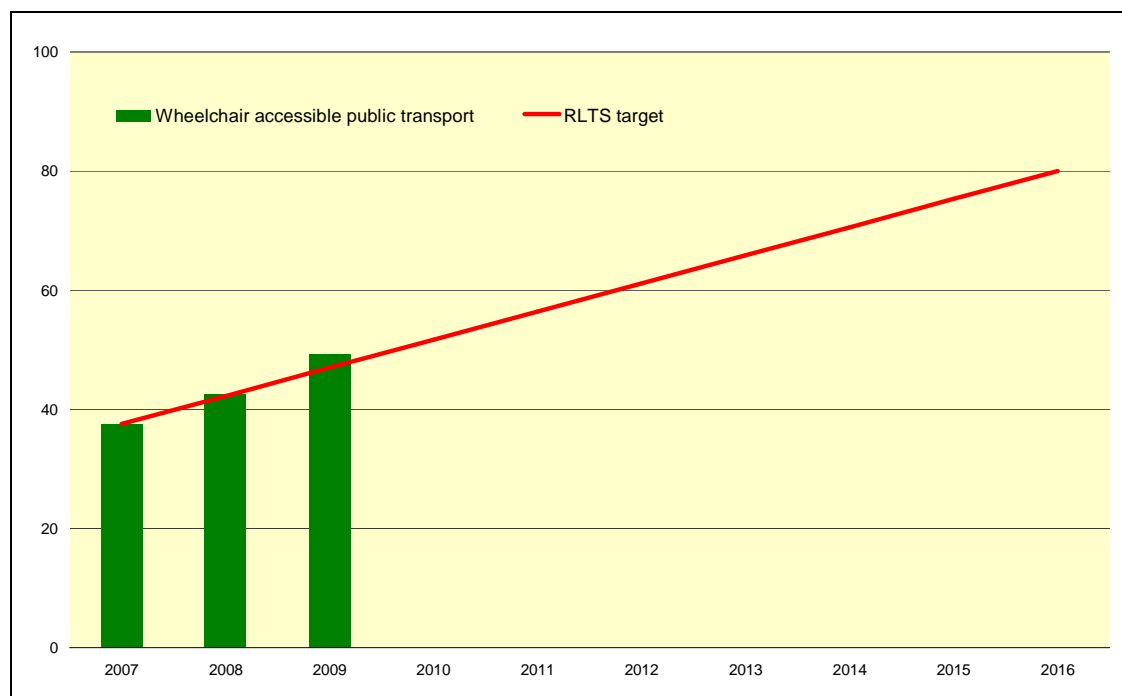


Figure 13: Accessibility of public transport vehicles (%), source: GWRC

49.3% of public transport vehicles are wheelchair accessible in 2009, up from 42.6% in 2008. This is a positive trend that puts the Wellington region on course to meeting the RLTS related target.

The RLTS related target for wheelchair accessibility is in line with current trends. Significant factors influencing the achievement of this target are investment in alterations to existing infrastructure and rolling stock as well as new public transport rolling stock. The continued replacement of older buses with new more wheelchair accessible buses and the introduction of new rail rolling stock will significantly contribute to the attainment of this related target.

It is recommended to increase the target to 90% by 2020 as a continuation of the current trend and on advice from GWRC Public Transport Group officers.

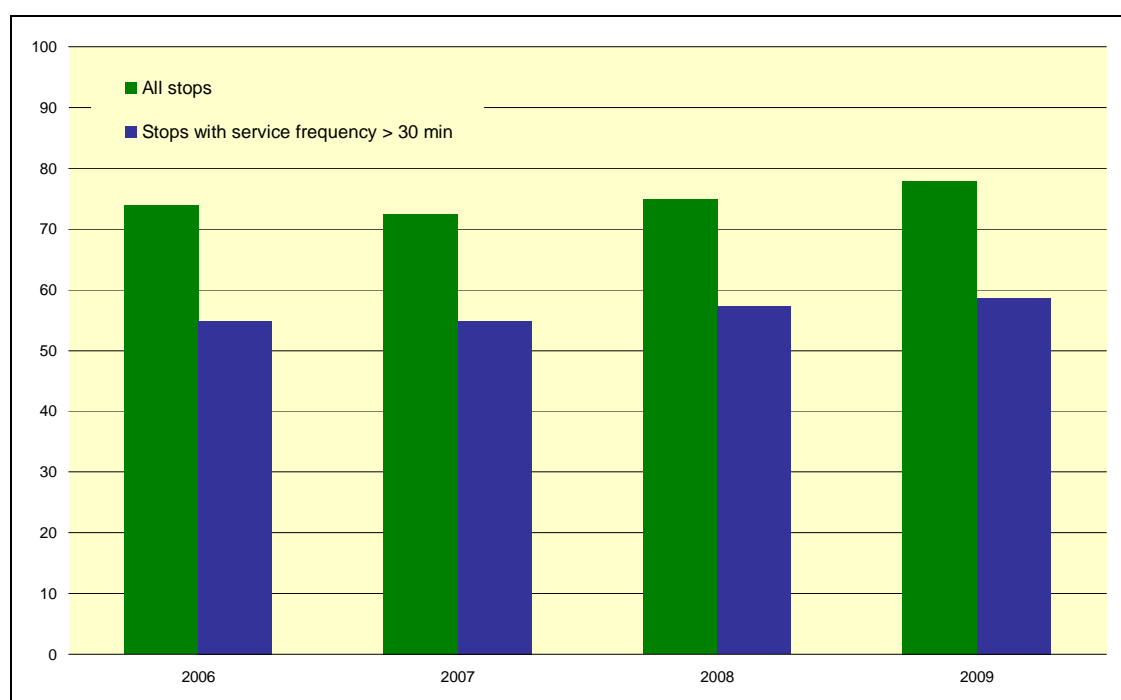


Figure 14: Percentage of population living within 400 metres of a PT stop, all stops; and stops with a 30 minute average service frequency or better. Sources: GWRC; Statistics New Zealand

In 2009, 59% of the region’s residents live within 400 metres of a public transport stop with an average service frequency of 30 minutes or better. The percentage in 2008 was 57%, up from 55% in 2007 and 2006.

The proximity to public transport RLTS related target is measurable but with nearly 60% of the population within 400 metres of a public transport stop with a service frequency of 30 minutes or better, a more definitive measure of ‘how much’ is necessary.

Significant factors that influence this outcome are economic and population growth, pattern and rate of development, distribution of the population, as well as the structure of the public transport routes and distribution of rail stations.

Wellington City Council’s intention to focus development along existing public transport corridors is signalled in the Ngauranga to Wellington Airport Corridor Plan and GWRC advocates for increased development and denser residential accommodation at all appropriate opportunities. Trends in population movement favour denser urban residential development that with easier access to public transport and greater active mode share of total trips taken.

Discussions with GWRC Public Transport Group officers identified a need to broaden the target measure. Land use changes are slow and the 400 metre boundary is not sufficient for cycling or rail stations. GIS information indicates that 77% of the region’s population lives within 800 metres of public transport stop with a 30 minute frequency or better.

It is therefore recommended that a target of 65% of the region’s population by 2020 is living within 400 metres and 80% within 800 metres of a public transport stop with a 30 minute frequency or better. The targeted percentage for 800 metres is meant to be in line with the targeted change to residents within 400 metres.

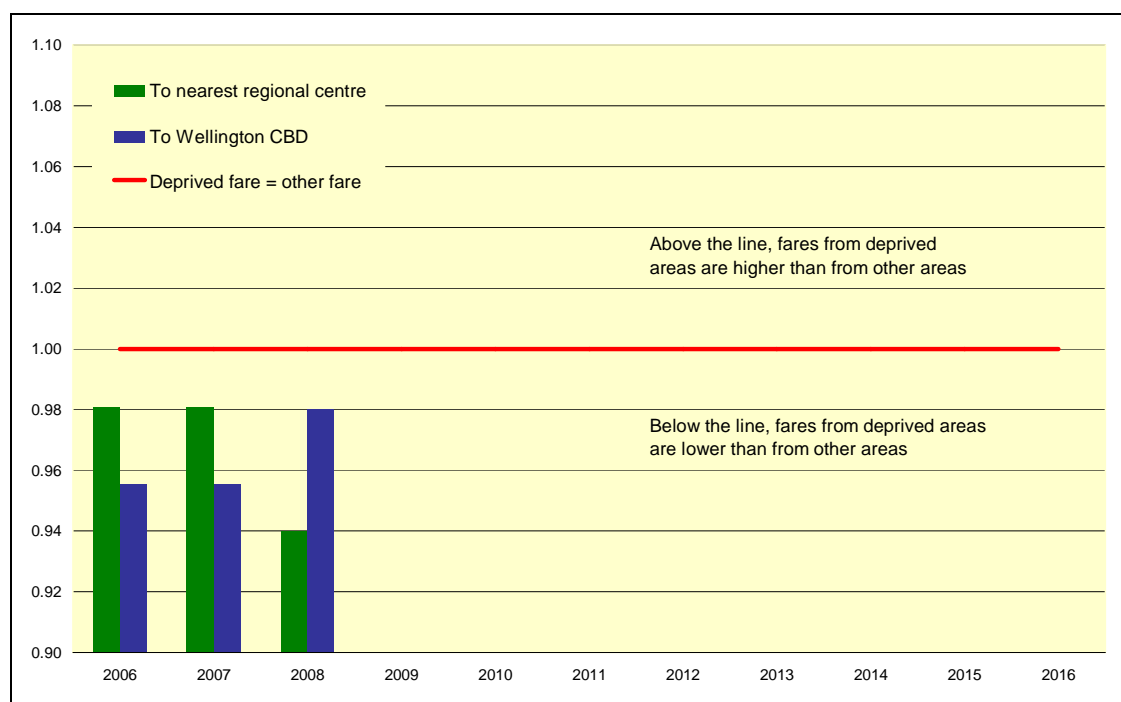


Figure 15: Ratio of the total average adult cash fares (September 2008, \$) from regional areas to nearest regional centre, and to Wellington CBD; deprived areas and other areas, sources: GWRC; Statistics New Zealand

Travel to Wellington CBD is more affordable in the majority of regional areas, similar for travel to nearest regional centre, making public transport fares very slightly cheaper in deprivation areas.

There are challenges in interpretation of the RLTS related target of more affordable public transport services in the highest deprivation areas. This has been taken to mean that public transport fares are less expensive for travel to the Wellington CBD and the nearest regional centre from deprivation areas than from other areas.

However, for the reasons mentioned in the prior section, this target measure is inadequate for the RLTS related outcome. It is therefore recommended to remove this target.

Outcome 1.4 – Reduced passenger transport journey times compared to travel by private car

2016 RLTS target	Peak PT journey times equal to or better than similar journey by car on select routes
NZTS national target	Reduce average journey times
TMIF Indicators	NR002 Reliability of travel time (delay/km) (regional data available)

Table 10: RLTS outcome 1.4 target breakdown and TMIF data availability

Is it the right measure?

While this RLTS related target is indirectly related to the national NZTS target and TMIF indicator, it is not directly comparable.

It is recommended that the target be altered so that it measures a reducing trend over time without a set numerical goal.

Is the target right?

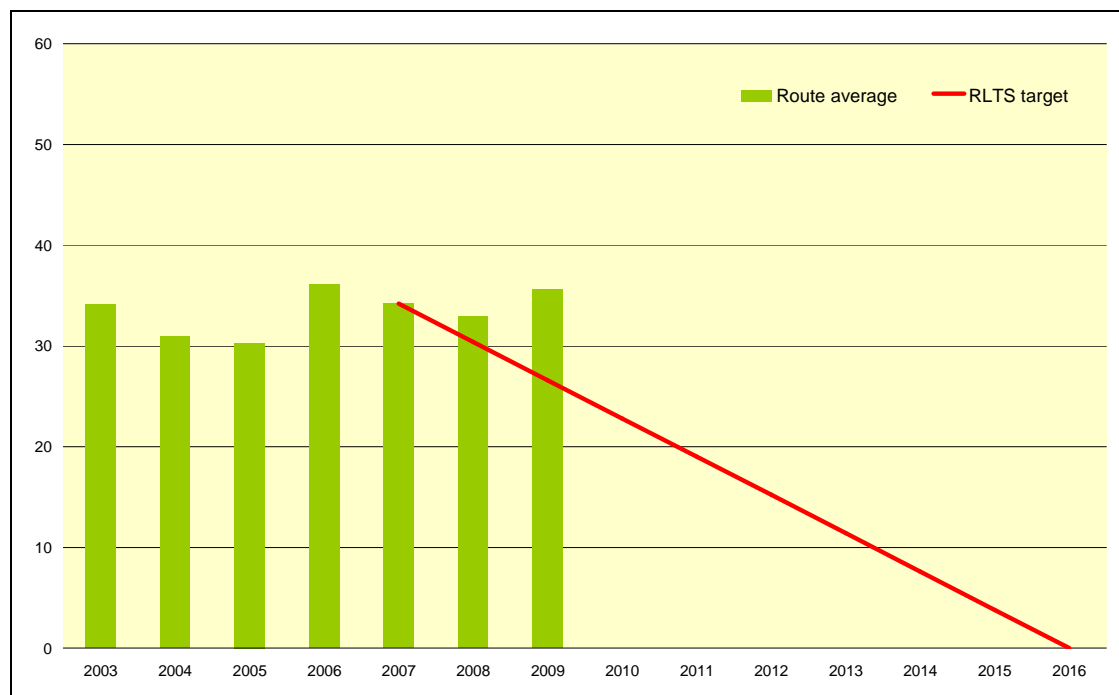


Figure 16: AM peak travel time difference between PT and private car (minutes), sources: NZTA, GWRC

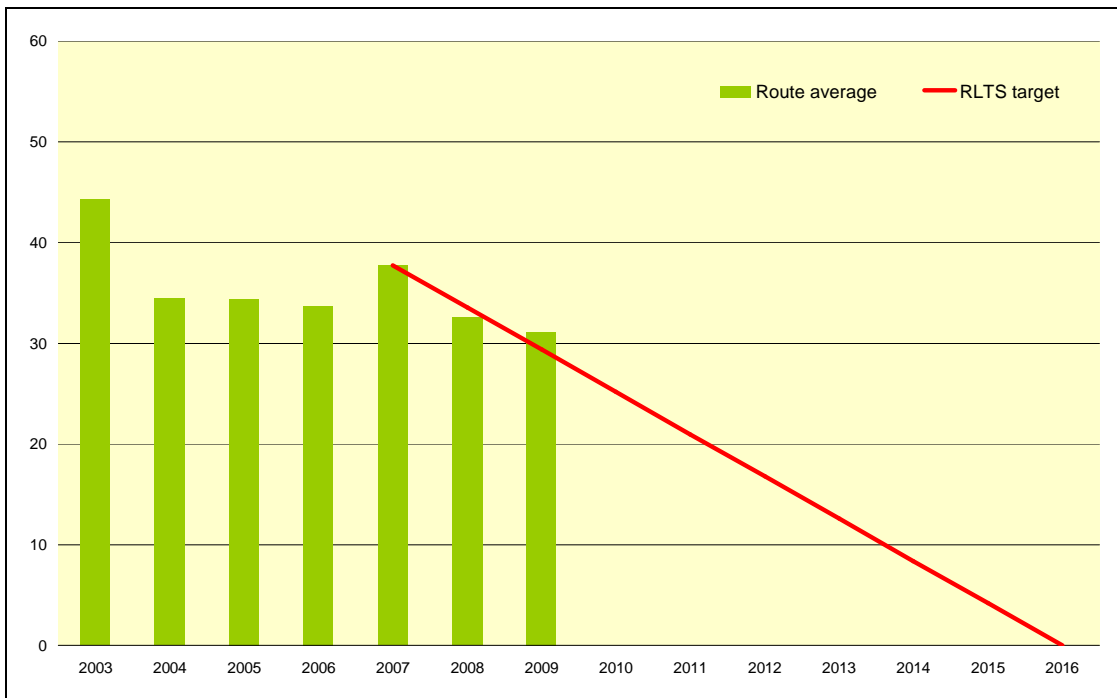


Figure 17: PM peak travel time difference between PT and private car (minutes). Sources: NZTA; GWRC

On average it took 36 extra minutes to travel by public transport than car in AM peak (up from 33) and 31 extra minutes for PM peak (down from 33). The 2009 data for the AM peak reverses a prior downward trend, although it is uncertain at this time whether a new trend is emerging. During the PM peak, the reduction in travel time difference was not enough to follow the trend necessary to achieve the target.

Significant factors that influence this outcome are network reliability issues, the delay in boarding and alighting from public transport services and the level of traffic congestion. Looking to 2016 we expect that the rail infrastructure improvements and bus priority measures will reduce the level of variance between public and private transport, but not eliminate it.

There is little that can reasonably be done within foreseeable affordability envelopes to significantly increase public transport service speed. Therefore, the achievement of these targets relies on significant road congestion to slow the private car. While some level of congestion is beneficial to encourage mode shift, too much will have a strongly negative impact on the region's economy.

Therefore, it is recommended that, as a more realistic measure, the target be set as 'continual reduction of peak period public transport journey times relative to a similar journey by private car for key selected corridors' be set for the short term (out to 2020) in line with the intention of continued improvement out to 2040.

Outcome 1.5 – Increased passenger transport reliability

2016 RLTS target	Nearly all bus and train services run on time
NZTS national target	Improve reliability of journey times
TMIF Indicators	NR002 Reliability of travel time (delay/km) (regional data available) NR003 % variability of travel time (road, rail, maritime, aviation) (regional data available)

Table 11: RLTS outcome 1.5 target breakdown and TMIF data availability

Is it the right measure?

This RLTS related target is well aligned with the NZTS national target as both seek to improve reliability of travel times, although the NZTS national target covers both private and public modes. The RLTS related target is relatively measurable and consistent with the outcome it sits beneath.

No change in the target measure is recommended.

Is the target right?

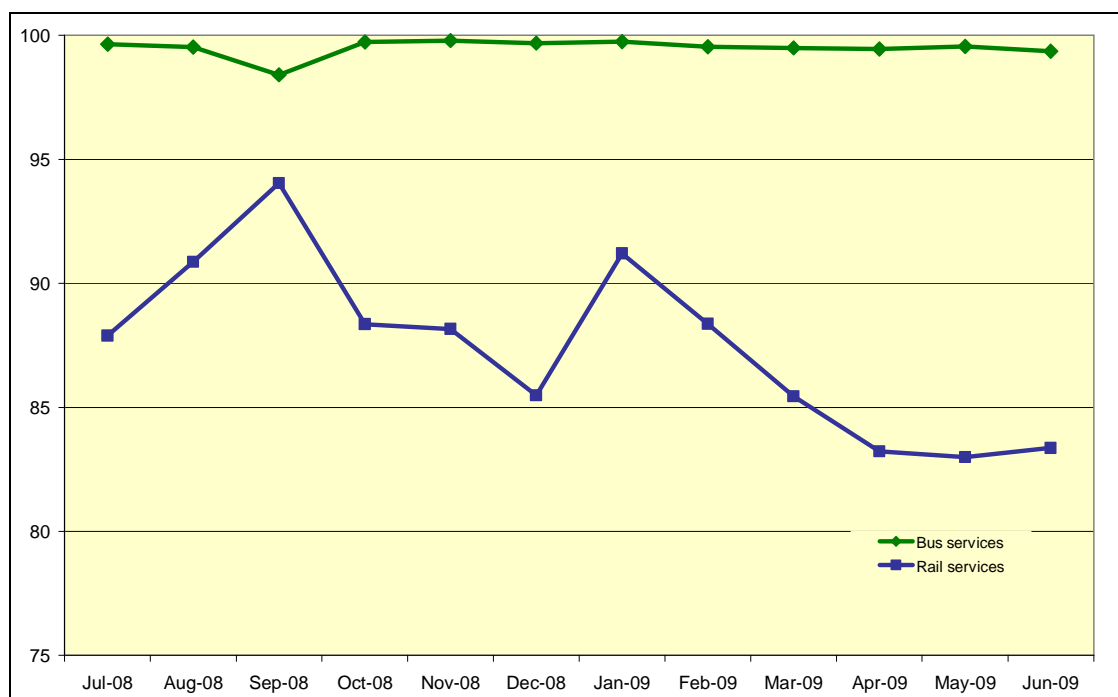


Figure 18: Bus and passenger rail services running to time (%). Sources: PT operators; GWRC

In 2009 nearly all bus service have operated within 10 minutes of scheduled time, and 83%-94% of rail services arrived or departed Wellington Rail Station within 5 minutes of a scheduled time.

The significant factors influencing this outcome are the reliability of the network and road traffic congestion. Bus priority measures, rail infrastructure improvements and some expansion of the road capacity signalled in the corridor plans and the RLTP are expected to have a positive effect on

journey time reliability, including public transport. The introduction of Real Time Information systems will also incentivise enhanced reliability.

The RLTS related target is well aligned with the NZTS and TMIF. There is no specific national level running time target, but such an alteration to the RLTS related target can improve interpretation of the data available. There is some uncertainty around whether the target has been met due to the lack of a definition for ‘nearly all’.

It is recommended that the target be changed to ‘continual improvement in bus and train services running to time’.

Outcome 2.2 – Improved level of service for pedestrians and cyclists

2016 RLTS target	All of strategic cycle network provides an acceptable level of service. Nearly all urban road frontages served by footpath
NZTS national target	None directly applicable
TMIF Indicators	AM010 Travel perceptions of walking (regional data available) AM011 Travel perceptions of cycling (regional data available) I1009 Cycle path quality (no data available) I1010 Foot path quality (no data available)

Table 12: RLTS outcome 2.2 target breakdown and TMIF data availability

Is it the right measure?

There is no matching NZTS national target for this RLTS related target. The TMIF does include the Wellington and Auckland travel perceptions survey data. At the time of writing, there is no indication on how the TMIF will measure cycle or foot path quality.

There is some uncertainty around the measurability of the two targets. With the cycling target, more clarity is required on what is actually being measured. An enquiry with the Wellington region’s Territorial Authorities revealed that no suitable data is collected to enable the development of an indicator for the footpath target. A separate survey would need to be commissioned to obtain data.

It is recommended that both the cycle and footpath network targets be changed to a measure of perception of cyclist and pedestrian level of service as a combined both ‘good’ and ‘neither good nor bad’ level of service.

Is the target right?

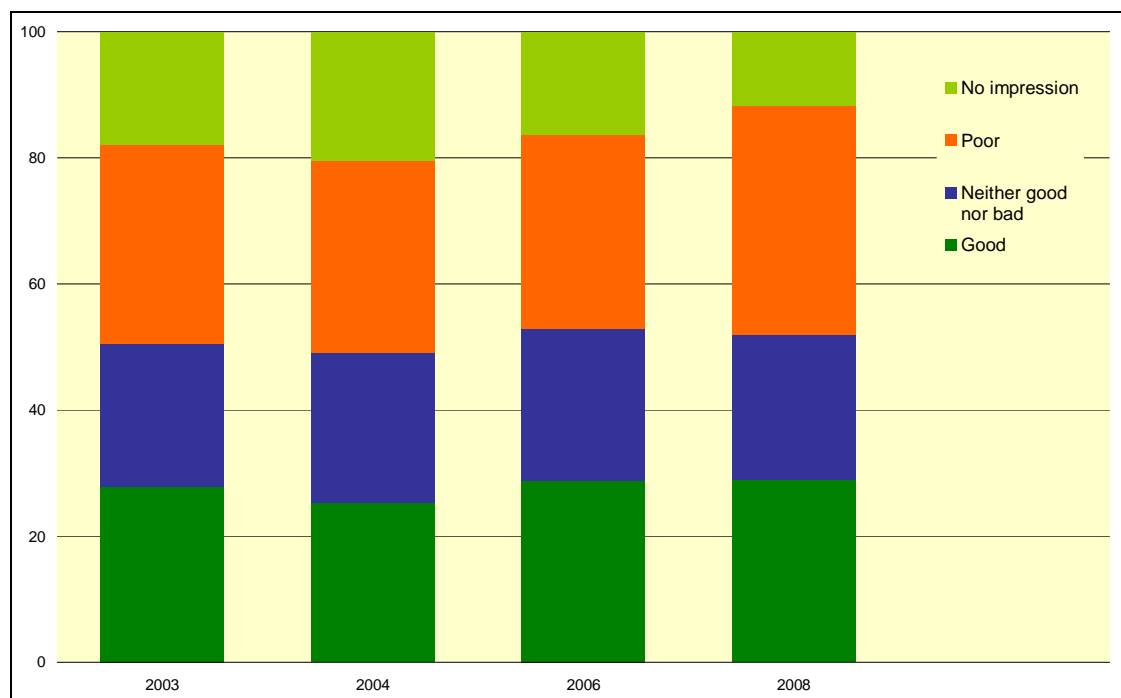


Figure 19: Perceptions of cyclist level of service (%), Wellington region. Source: GWRC transport perception surveys

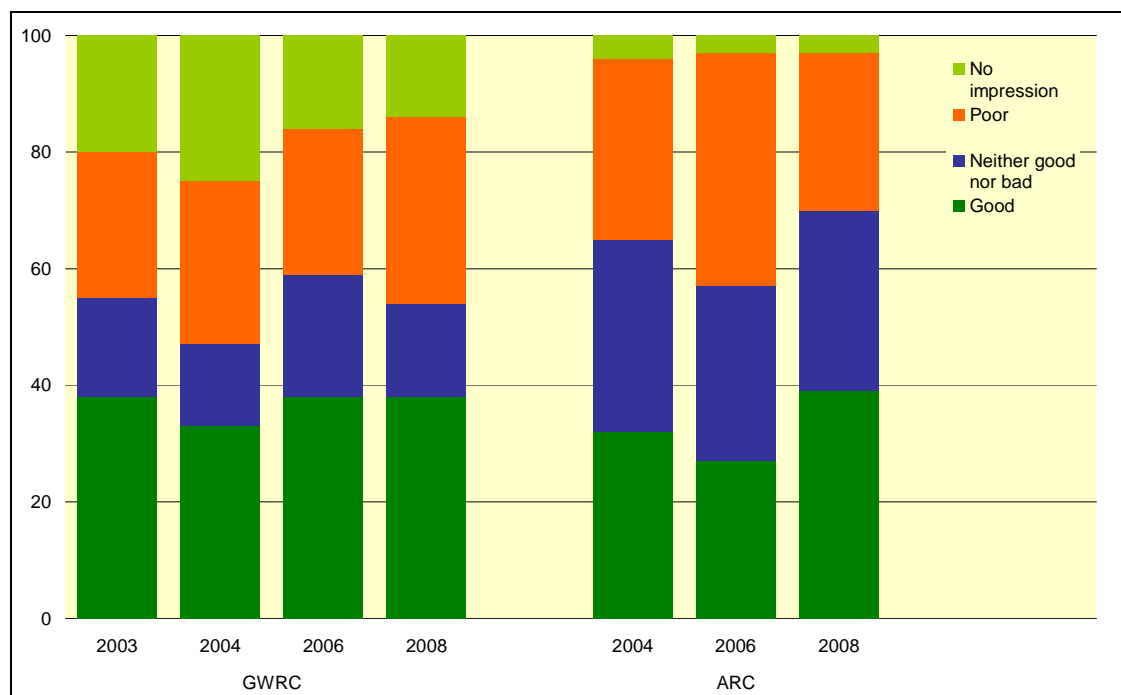


Figure 20: How 'hassle free' is it to get around the region by cycling? (%). Sources: GWRC and ARC transport perceptions surveys

The perception of the level of service for cyclists has been trending slightly downward. Only 29% gave cyclist level of service a 'good' rating, while 32% said it was poor. When asked how 'hassle free' it was to get around the region by cycling 38% said it was good while 32% said poor.

This is a negative trend since in 2006 only 25% of respondents said 'poor' when asked how 'hassle free' was cycling.

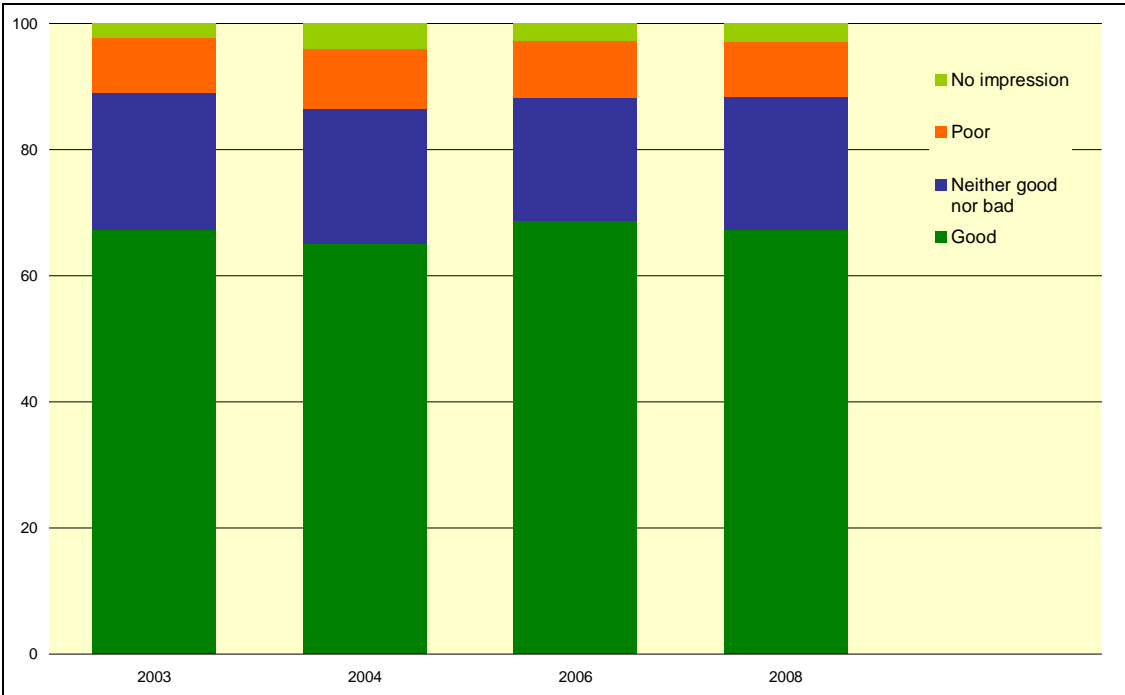


Figure 21: Perceptions of pedestrian level of service (%), Wellington region. Source: GWRC transport perception surveys

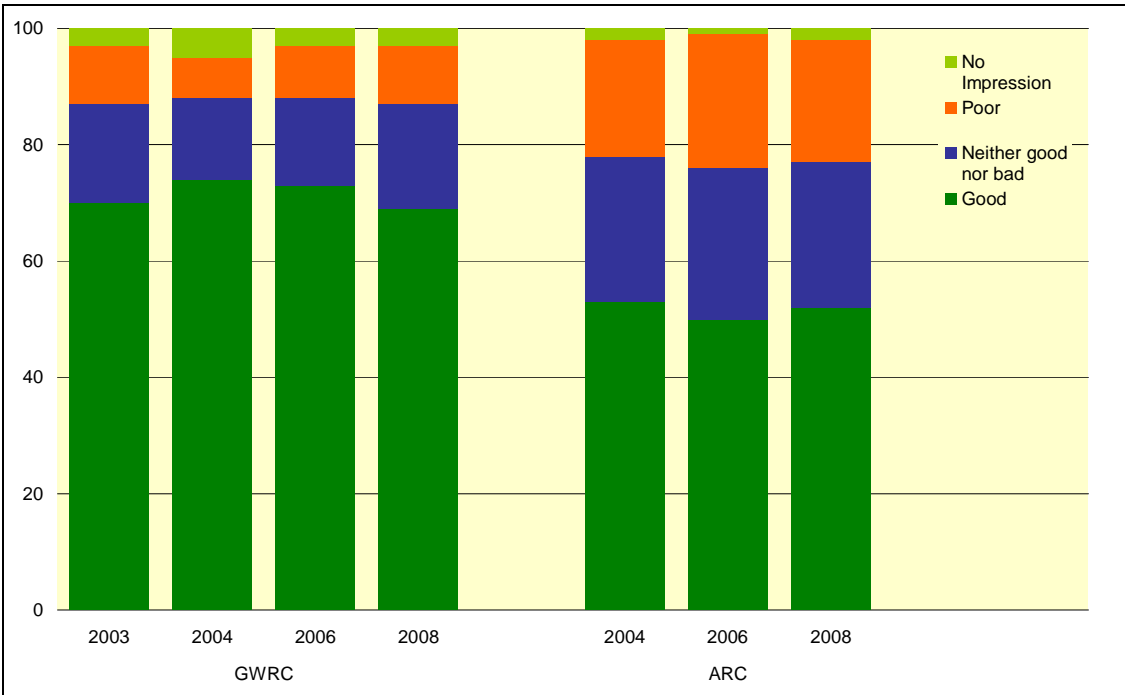


Figure 22: How 'hassle free' is getting around the region by walking? (%). Sources: GWRC and ARC transport perception surveys

The perception of the level of service for pedestrians has been relatively flat. 67.2% gave walking level of service a ‘good’ rating, while only 8.6% said it was poor. When asked how ‘hassle free’ it was to get around the region by walking 69% said it was good while 10% said poor.

This is a slightly negative trend since in prior surveys the percentage of respondents who said walking was good when asked how ‘hassle free’ it was numbered in the low 70s.

While better than cycling, the level of service for walking is still disappointing.

Significant factors influencing this outcome include investment in cycling and walking infrastructure and activities, driver and cyclist training, and other road safety activities. The Regional Cycling, Walking and Road Safety Plans detail the actions GWRC and the various road controlling authorities will undertake going forward to 2020. If these plans are implemented it is likely to result in an improved perception of level of service for the cycling and footpath networks.

It is recommended that a 2020 target of 70% of respondents report a ‘good’ or ‘neither good nor bad’ level of service for the regional cycle network and 95% of respondents report the same for the regional footpath network.

These targets are ambitious, especially for cycling, but more realistic out to 2020.

Outcome 2.3 – Increased safety for pedestrians and cyclists

2016 RLTS target	Fewer than 100 pedestrians injured in the region per annum Fewer than 75 cyclists injured in the region per annum
NZTS national target	Reduce road deaths to no more than 200 per annum by 2040 Reduce serious injuries on roads to no more than 1,500 per annum by 2040
TMIF Indicators	None directly applicable

Table 13: RLTS outcome 2.3 target breakdown and TMIF data availability

Is it the right measure?

The NZTS does not contain a national level target specifically for reduced cyclist or pedestrian casualties, nor does the TMIF track those numbers specifically. Given that the Wellington region has specific and considerable issues with pedestrian and cyclist casualties, a target that measures those casualties is considered essential.

There is some inconsistency with the recommended new road safety target, in that all casualties (fatal, serious and minor) are included in these targets while the recommended new key outcome target measures only fatal and serious injury casualties. However, pedestrians and cyclists are more vulnerable in minor incidents than many other road users.

No change is recommended in the measure.

Is the target right?

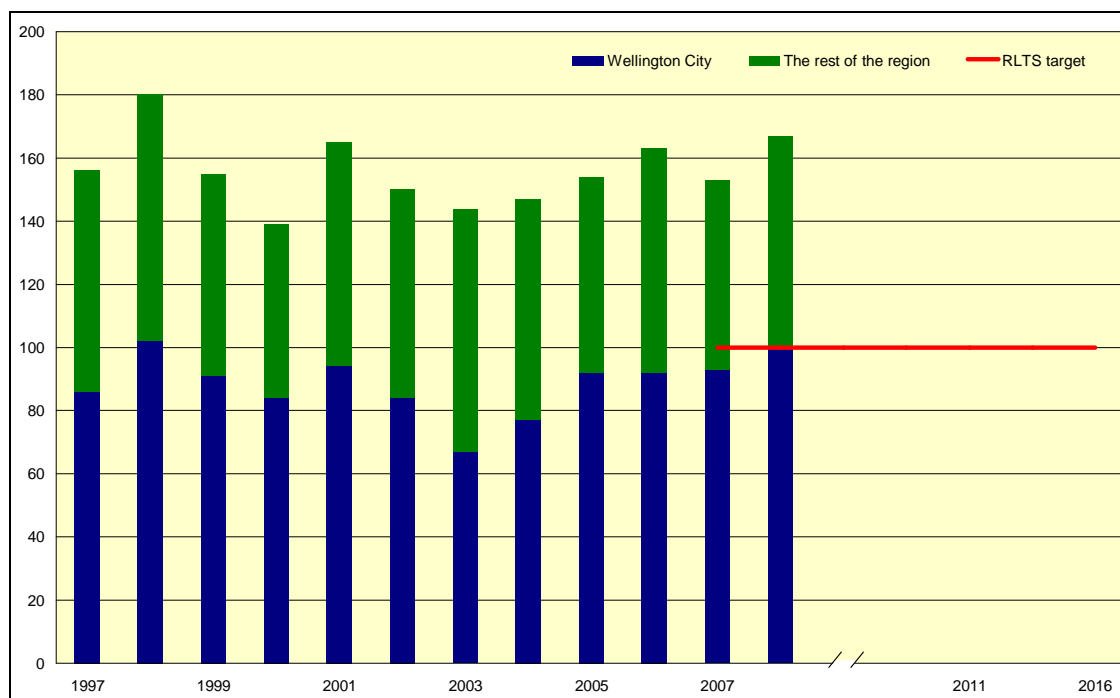


Figure 23: Pedestrian casualties in Wellington City and the rest of the region. Calendar year. Source: NZTA

2008 total pedestrian casualties numbered 167, an increase from 153 the previous year. Of those, Wellington City comprised 100 pedestrian casualties, taking up the RLTS target itself.

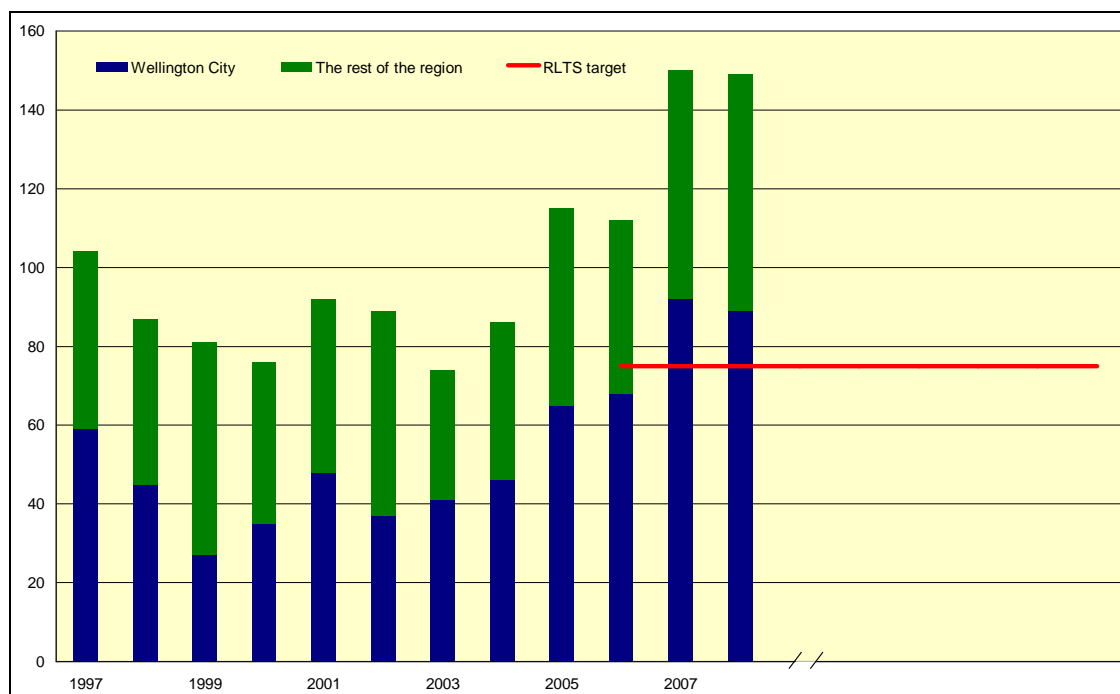


Figure 24: Cyclist casualties in Wellington City and the rest of the region. Calendar year. Source: NZTA

The Wellington region had 149 cyclist casualties in 2008, one less than in 2007. Of those Wellington City made up 89 cyclist casualties, exceeding the RLTS target set for the whole region.

Pedestrian and cyclist casualties are significant issues in the Wellington region, especially for Wellington City. The current trends indicate that the RLTS target will not be met by 2016 without significant effort and investment. Significant factors that influence this outcome are investment in cycling and footpath network improvements, driver and cyclist training, and other road safety activities. The Regional Cycling, Walking and Road Safety Plans detail the projects and activities that are intended to improve the cyclist and pedestrian casualty numbers.

If the regional plans are implemented together with strong initiatives at the national level, significant improvements in cyclist and pedestrian safety can be achieved. The national target seeks a 50% reduction in all road deaths and serious injury casualties, cyclists and pedestrians included.

Safer Journeys 2020 aims to achieve a reduced crash risk for pedestrians and cyclists while encouraging more use of these modes through improved infrastructure. While reduced risk is a different measure than a reduced number of casualties the two are fairly well aligned.

Stakeholder comments also indicate the desire to alter the target to a measure of reduced rate of casualties. The issue with this type of measure is that there is currently no clear information on annual pedestrian and cyclist numbers except for Wellington City cordon surveys.

Cyclists and pedestrians are particularly vulnerable road users in the Wellington region, and the ambition of the RLTS target is recommended to reflect that.

It is therefore recommended that the RLTS target a 25% reduction in all casualties for both cyclists and pedestrians.

That means the two 2020 targets are recommended to be changed to ‘a reduction in the number of pedestrian casualties to no more than 125’ and ‘a reduction in the number of cyclist casualties to no more than 110’.

Outcome 3.2 – Reduced private car mode share

2016 RLTS target	Private vehicles account for no more than 62% of region wide journey to work trips
NZTS national target	Reduce the kilometres travelled by single occupancy vehicles, in major urban areas on weekdays, by 10% per capita by 2015 compared to 2007
TMIF Indicators	TP002 Mode shifts in total trip legs (regional data available) TP004 Ratio of PT trip legs and driver trip legs (no regional data available) TP006 Mode share for journey to work (regional data available)

Table 14: RLTS outcome target breakdown and TMIF data availability

Is it the right measure?

While there is no directly comparable NZTS national target to this RLTS target the NZTS does seek a reduction in VKT in major urban areas. The RLTS measure is consistent with the TMIF indicator TP006 in that they both track private vehicle mode share, although the data sources are different. GWRC gets its information from the NZ Census, while MoT uses the Ongoing Household Travel Survey. The MoT survey does not provide adequate data for assessing long term trends with confidence and the Census data has a much larger sample size.

The target is measurable by ‘how much and when’. No change is recommended.

Is the target right?

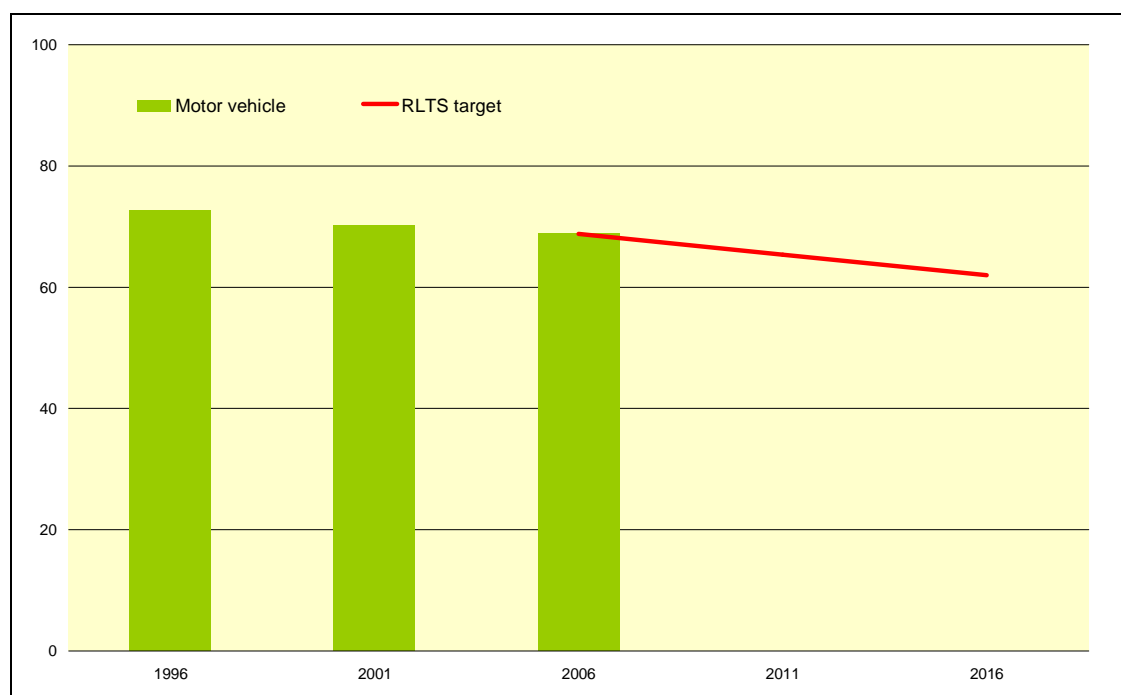


Figure 25: Motor vehicle mode share of journey to work (%). Source: Statistics New Zealand

In 2006, 69% of journey to work mode share was by private car, slightly down from the previous year. There is an overall downward trend that is consistent with achieving the RLTS target by 2016.

Significant factors that influence this outcome are fuel price changes, travel time reliability, network capacity and land development patterns. Looking to 2016 we expect that real time information systems, improvements to the rail infrastructure and population shifts towards the inner city will reduce private vehicle mode share for journey to work trips.

The targeted change is potentially attainable and it is recommended to reduce the number to 61% private vehicle journey to work trips by 2020 – in line with public transport (Outcome 1.1) and active mode share (Outcome 2.1) changes.

Outcome 3.3 Reduced fuel consumption

2016 RLTS target	No more than 442 mega litres of petrol and diesel per annum will be used for transport
NZTS national target	Become one of the first countries to widely use electric vehicles
TMIF Indicators	None directly applicable

Table 15: RLTS outcome 3.3 target breakdown and TMIF data availability

Is it the right measure?

The NZTS national target is only indirectly related to the RLTS related target. National level fuel sales are not tracked as an indicator in the TMIF. This RLTS related target is not inconsistent with the NZTS. Potential changes in reporting methodology as in the RLTS key outcome for reductions in greenhouse gases suggest that this related target be altered along similar lines as well.

It is recommended that the target be altered to a ‘hold the line’ target at a certain year, rather than a specific numeric value.

Is the target right?

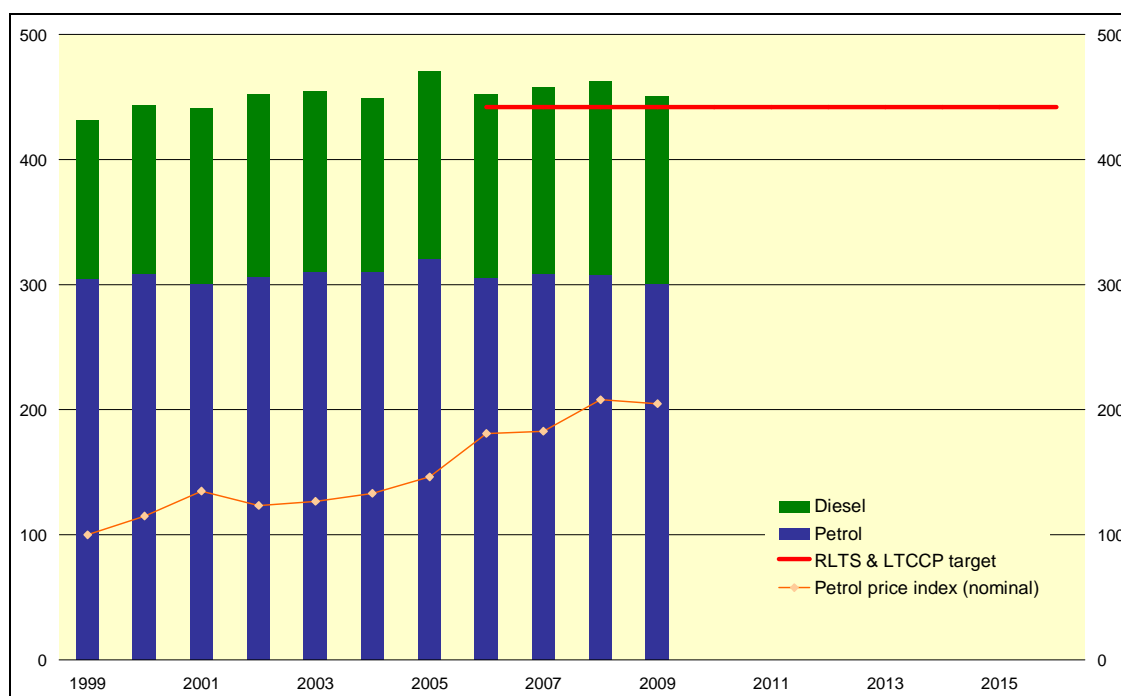


Figure 26: Fuel (diesel and petrol) consumption (M litres), Petrol price index, Wellington region. Sources: local authorities; Statistics New Zealand

451 million litres of fuel were sold in financial year 2009 in the Wellington region, down from 463 in 2008. While there has been an overall slight positive trend of decreasing fuel sales over the past five years, since 2001 fuel sales have slightly increased by 2.4%.

The year at which fuel sales are currently targeted to ‘hold the line’ at is 2001.

Significant factors that influence this outcome are the fuel efficiency of the vehicle fleet, fuel price changes, economic and population growth, land development patterns, and mode share distributions. Most of these factors are outside the control of GWRC.

Mode shift is encouraged through projects and activities detailed in the Passenger Transport, Walking, Cycling, and Travel Demand Management Plans which sit underneath the RLTS. Land development patterns are influenced by the Regional Policy Statement and District Plans.

It is recommended to change the target to ‘petrol and diesel per annum used for transport purposes will remain below year 2001 levels’ in order to increase flexibility.

Outcome 3.4 – Increased private vehicle occupancy

2016 RLTS target	Vehicles entering Wellington CBD during AM peak contain on average at least 1.5 people per vehicle
NZTS national target	Reduce kms travelled by single occupancy vehicles in major urban areas by 10% per capita from 2007 values by 2015
TMIF Indicators	TV010 Mean light 4-wheeled vehicle occupancy (people/km) (regional data available) TV013 Distance per capita travelled in single occupancy vehicles in major urban areas on weekdays (regional data available)

Table 16: RLTS outcome 3.4 target breakdown and TMIF data availability

Is it the right measure?

The RLTS related target is broadly consistent with the NZTS national target in that both seek to reduce single occupancy vehicles use in urban areas. Neither GWRC nor the local authorities collect vehicle occupancy data on a per kilometre travelled basis, as the TMIF does with the Ongoing Household Travel Survey. Rather, GWRC uses the cordon survey conducted by WCC to annually track vehicle occupancy in the largest urban area in the region.

The RLTS related target is measurable by ‘how much and when’. No changes in the measure are recommended.

Is the target right?

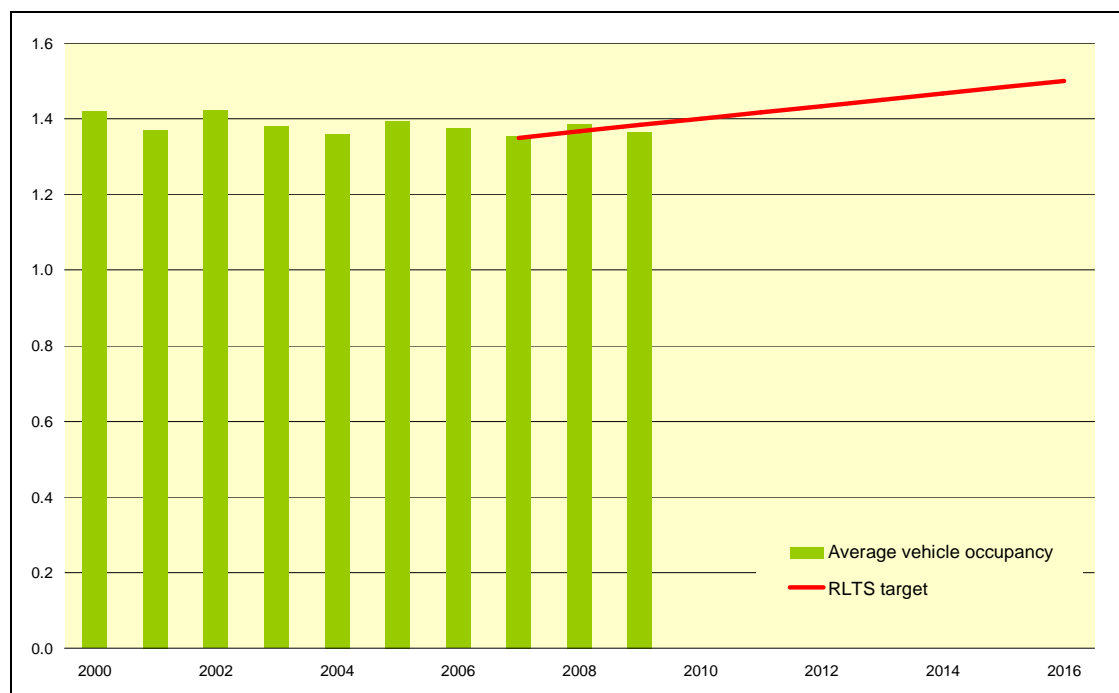


Figure 27: Wellington CBD cordon inbound vehicle occupancy, weekday AM peak, March. Source: Wellington City Council

In 2009, the average vehicle occupancy of cars entering the Wellington CBD was 1.37 people per car. This result is down slightly from 2008 when the average vehicle occupancy was 1.39 people per car. The overall trend is rather static, indicating that increased effort in this area is required to achieve the RLTS related target.

Significant factors influencing this outcome are fuel prices and awareness of and access carpooling information. GWRC has implemented the ‘let’s carpool’ website with the aim of increasing vehicle occupancy on journey to work trips throughout the region.

The target is more realistic out to 2020. No change in the target magnitude is recommended.

Outcome 4.2 – Maintained vehicle travel times between communities and regional destinations

2016 RLTS target	No decrease in average vehicle journey “speeds” shown in travel time surveys for selected key routes
NZTS national target	Reduce average journey times Improve reliability of journey times
TMIF Indicators	NR002 Reliability of travel time (delay/km) (regional data available) NR003 % variability of travel time (road, rail, maritime, aviation) (regional data available) NR004 Average journey times for key corridors (road, rail, maritime, aviation) (no data)

Table 17: RLTS outcome 4.2 target breakdown and TMIF data availability

Is it the right measure?

The RLTS related target of maintaining journey ‘speeds’ is roughly consistent with the NZTS national target of reduced journey times and well aligned with the NZTS target of improved journey time reliability. These RLTS related targets are measured using the same data from the NZ Transport Agency for the Wellington region as collected for the TMIF.

The RLTS target is well aligned with the TMIF and is measurable, but vague and leads to uncertain interpretation. There is a good possibility that the indicator used to measure this RLTS related target may change.

Therefore, it is recommended that a target year be set at which journey ‘speeds’ are desired to be maintained. This will increase certainty around the interpretation of indicators used to assess this target.

Is the target right?

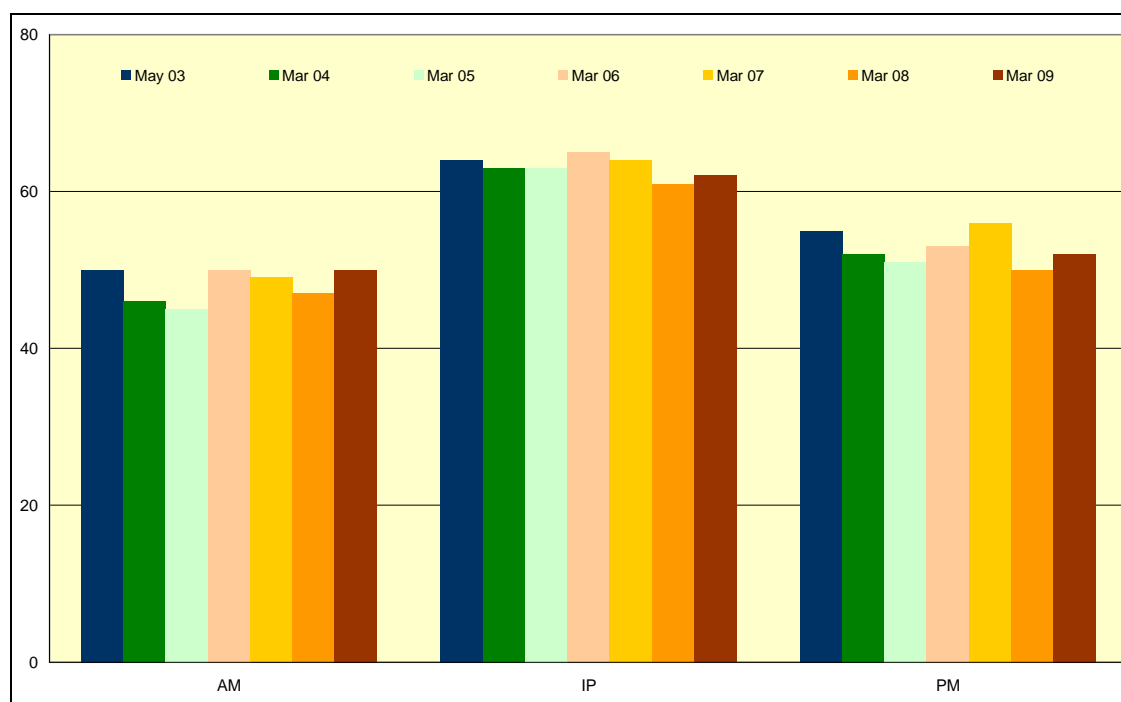


Figure 28: Road network average vehicle speeds (km/h), Wellington region. Source: NZTA

The average vehicle speeds on selected routes during the AM peak was 50 km/h in 2009, up from 47 km/h in 2008. During the inter-peak the average vehicle speeds was 52 km/h (50 km/h in 2008). During the PM peak, average vehicle speeds was 52 km/h, also up from 50 km/h in 2008. Therefore, the overall all day average vehicle speeds on selected routes in the Wellington region was 54 km/h in 2009, which was up from 52 km/h in 2008.

The overall long term trend in average vehicle speeds is roughly neutral across all time periods.

Significant factors influencing this outcome are population and economic growth, network reliability and the level of congestion. It is expected that several of the high third priority public transport and roading activities identified in the Regional Land Transport Programme 2009 – 2012 would have a positive effect on average journey ‘speeds’ and times across all periods of the day.

There is currently some uncertainty as to whether the overall neutral trend indicates the RLTS related target of ‘no decrease’ is being met. Data goes back to 2003, and that year is the same as the one recommended in changes to the congestion key outcome target (‘hold the line’ at 2003 values).

Therefore, it is recommended that the target be changed to ‘average vehicle journey “speeds” shown in travel time surveys for selected routes will remain at or above 2003 levels.’

Outcome 4.3 – Improved reliability of the strategic roading network

2016 RLTS target	Key routes are very rarely affected by closure
NZTS national target	Improve reliability of journey times
TMIF Indicators	NR002 Reliability of travel time (delay/km) (regional data available)

Table 18: RLTS outcome 4.3 target breakdown and TMIF data availability

Is it the right measure?

The RLTS related target and the national NZTS target are roughly consistent. Road closures due to Police response to incidents is a key factor in journey time reliability on the roading network. The NZTS target and TMIF indicators focus on congestion, which is more consistent with RLTS outcome 4.1: Reduce severe road congestion.

There is no need to measure congestion twice and therefore, it is recommended that road closures be kept as an indicator for this RLTS related target.

Is the target right?

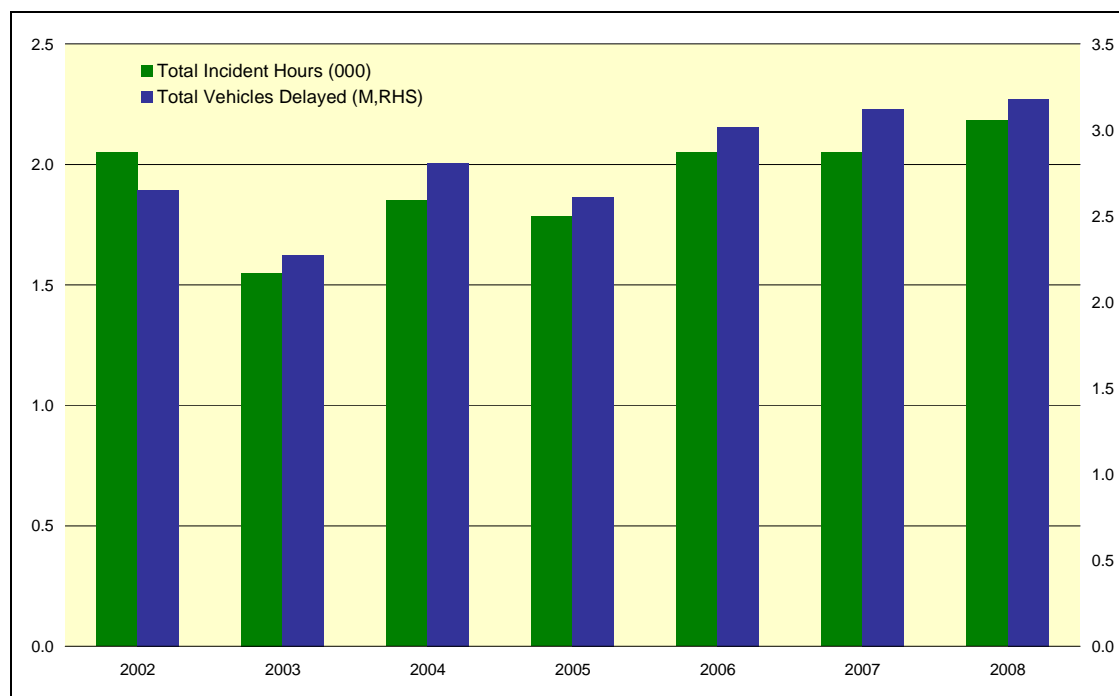


Figure 29: Total incident minutes (000) and total vehicles delayed (M) on the strategic roading network, Wellington region. Calendar year. Source: NZ Police; GWRC WTSM

In 2008, 2,180 total incident hours were recorded and 3.18 million vehicles were delay. This is a slight worsening trend since 2,050 incident hours and 3.27 million vehicles were delayed in 2007. The data indicates that in 2008 more incidents occurred on the strategic roading network during times when travel demand was less.

Significant factors that influence this outcome are driver behaviour and the safety design work of the road. Activities to be undertaken by 2016 by the relevant road controlling authorities are detailed in the Regional Road Safety Plan.

There currently is no definition for ‘very rarely’ which makes interpreting the indicator values difficult. Little analysis has thus far been conducted to determine an appropriate numeric value for the number of incident hours or vehicles delayed.

Therefore, it is recommended that the target be changed to ‘continual reduction in total incident hours’ to reverse current trends and aid interpretation of the data received.

Outcome 6.2 – Improved integration between transport modes

2016 RLTS target	Majority of passenger transport services covered by integrated ticketing
NZTS national target	Improve reliability of journey times
TMIF Indicators	None directly applicable NR003 % variability of travel time (road, rail, maritime, aviation) (regional data available)

Table 19: RLTS outcome 6.2 target breakdown and TMIF data availability

Is it the right measure?

This RLTS related target is broadly consistent with the relevant NZTS national target, as the RLTS target is a subset of improved reliability of journey times. There are no dedicated TMIF indicators for public transport reliability, although the TMIF does track the percentage variability of travel times on public transport (NR003).

Integrated ticketing is not the only measure of integration between modes. Others include park and ride (private vehicles and trains), cycle lockers at train stations, as well as other improvements in cycling and walking facilities.

No change is recommended to the current target, but another target to cover park and ride and cycle lockers are recommended to broaden the scope set for this outcome as well as cover data currently gathered for the AMR.

Is the target right?

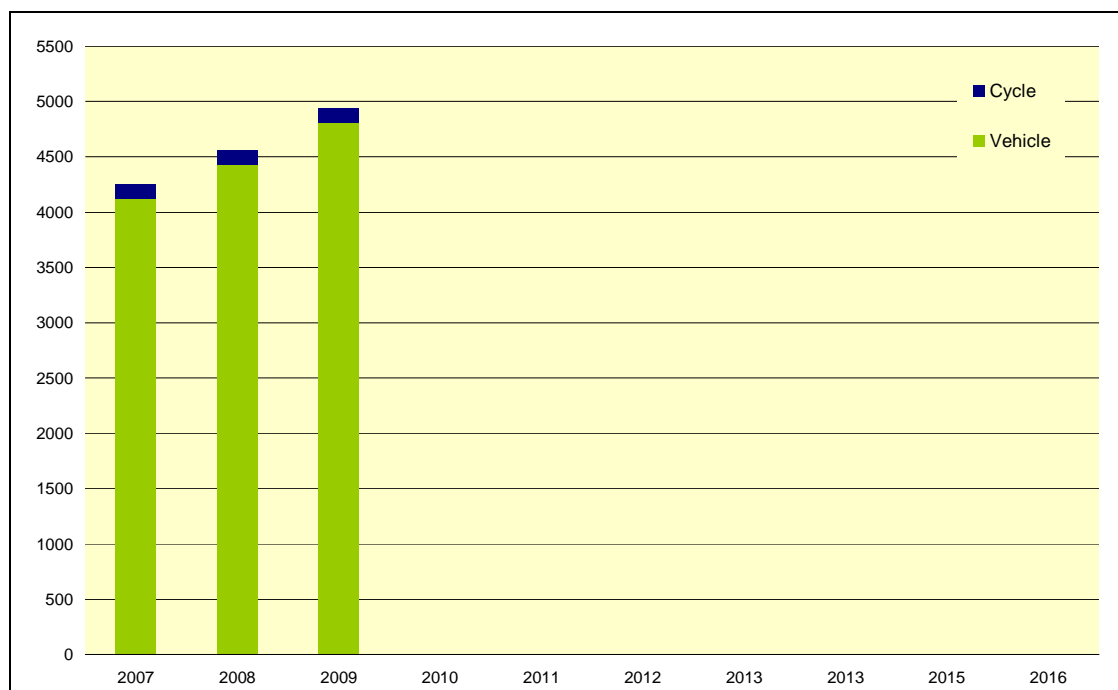


Figure 30: Number of vehicle car parks and cycle lockers at railway stations, Wellington region. Source: GWRC

There is no direct data available on this RLTS related target as an integrated ticketing system is yet to be implemented. As of 2009, there were 4,807 vehicle parking spaces at rail stations and 132 cycle storage spaces. This represents a positive trend in the Wellington region towards greater integration of transport modes.

The significant factor influencing this outcome is funding available for investigation, design and construction of these projects and activities. It is expected that by 2016 the number of park and ride car parks and cycle lockers will increase.

It is recommended that a new target to RLTS outcome 6.2 be added: ‘Continued improvement in walking, cycling and park ‘n ride facilities at and around public transport interchanges.’

Outcome 6.3 – Sustainable economic development supported

2016 RLTS target	Reduced vehicle kilometres travelled per GDP
NZTS national target	None directly applicable
TMIF Indicators	FT001 Transport and storage GDP (no regional data available) FT002 Transport and storage as a % of GDP (no regional data available) FT003 Annual change in transport and storage GDP as a % of total GDP (no regional data available)

Table 20: RLTS outcome 6.3 target breakdown and TMIF data availability

Is it the right measure?

There is no national NZTS target directly applicable to this RLTS related target.

The TMIF data combines transport (all modes) and storage industries together and is not yet available for the Wellington region. The RLTS target is designed to promote economic development and growth that is less reliant on road freight with follow-on effects of improved road travel speeds, journey time reliability, and variability resulting from congestion.

There is some uncertainty around the interpretation of this related target as it is currently measured.

Therefore, it is recommended that the target be modified to measure a reducing trend in vehicle kilometres travelled per GDP.

Is the target right?

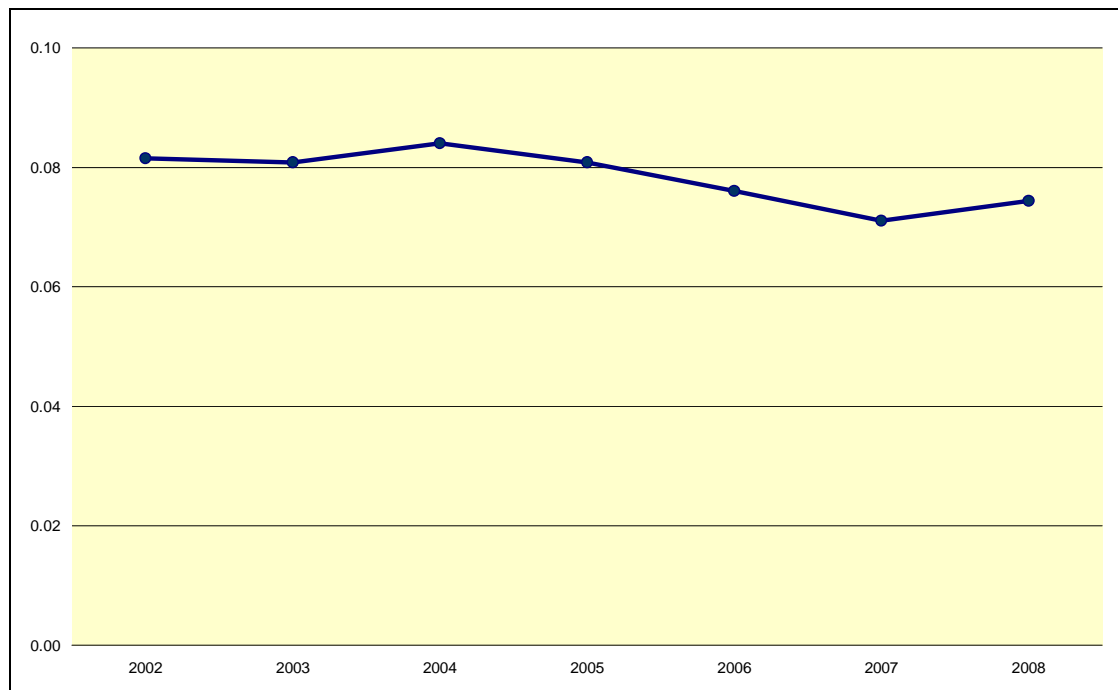


Figure 31: State highway VKT per GDP. Sources: NZTA; Business and Economic Research Limited (BERL)

The ratio of state highway vehicle kilometres travelled per GDP increased by 5% in 2008. However, there is an overall downward trend with a 9% drop in the ratio between 2002 and 2008.

Significant factors that influence this outcome are population and economic growth, economies of scale and economic efficiencies in the freight sector, fuel prices, and the distribution of businesses throughout the region. GWRC does not control several of these factors but does advocate for shifting freight onto other modes where appropriate.

It is recommended that the relative measure of this target is kept, but to clarify interpretation of the target be amended to read ‘continued reduction in vehicle kilometres travelled per GDP.’

Outcome 6.4 – Improved transport efficiency

2016 RLTS target	Reduced passenger transport expenditure per passenger Reduced roading expenditure per GDP
NZTS national target	None directly applicable
TMIF Indicators	None directly applicable

Table 21: RLTS outcome 6.4 target breakdown and TMIF data availability

Is it the right measure?

No national level target in the NZTS or TMIF data is applicable to these RLTS related targets. The TMIF measures length and quality of various parts of the transport infrastructure (II001-II014) but it is as yet unclear how the quality will be assessed.

The purpose of this RLTS related outcome is to improve the economic efficiencies of the public transport and roading networks in the region so that they operate at less cost to the ratepayer as usage and the economy grows respectively. These targets are relatively measurable but there are some uncertainties concerning the interpretation of received data.

NZ Transport Agency funding efficiency tests are considered a better mechanism to measure financial efficiency. The RLTS also contains policies (Chapter 8.8) that address financial efficiency.

The targets and the related outcome they measure are recommended to be removed.

Is the target right?

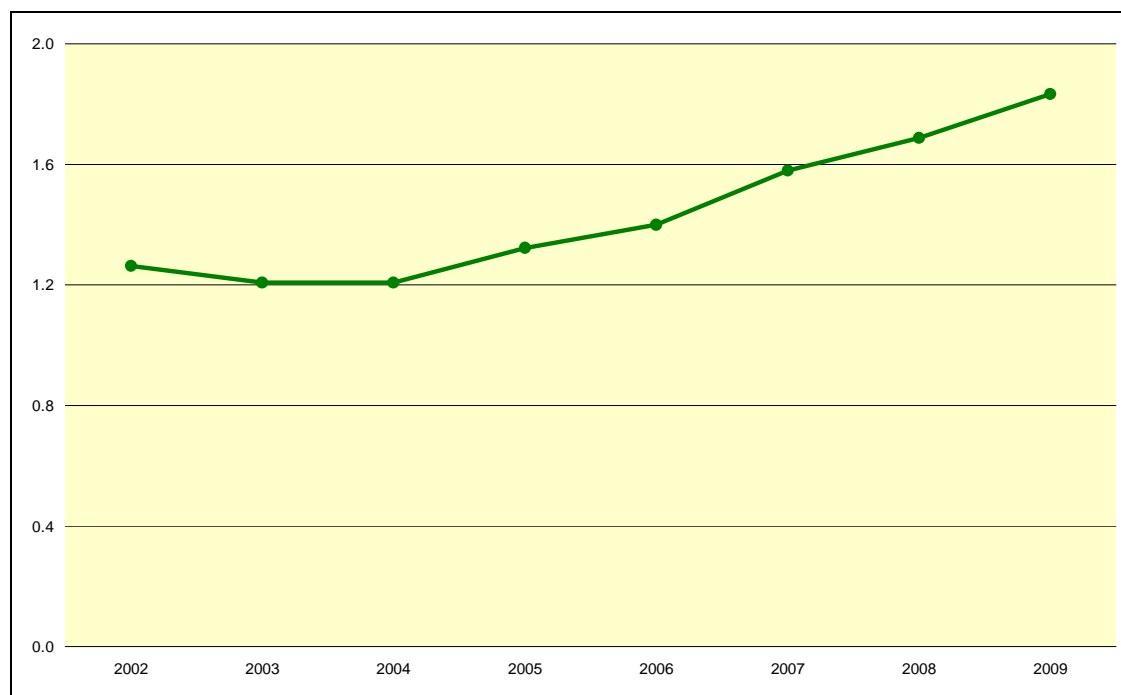


Figure 32: Average public transport expenditure (\$) per passenger. Source: GWRC

Public transport operating expenditure has consistently risen, up 45% since 2002. In 2009, operating expenditure increased 8.7%.

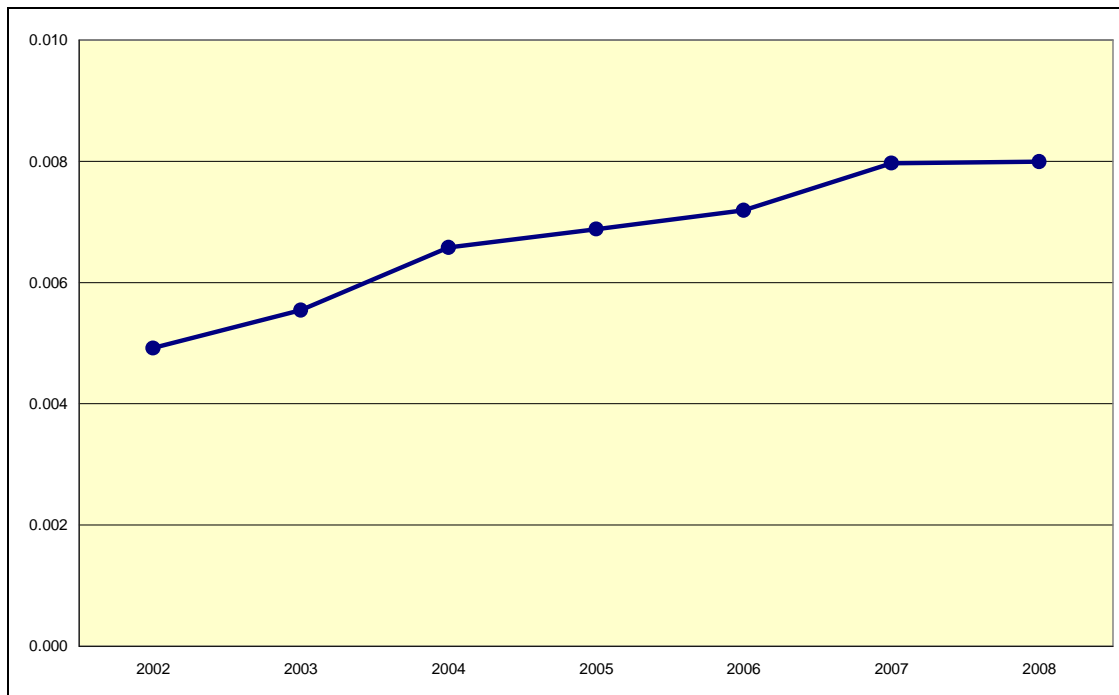


Figure 33: Roading expenditure (\$) per GDP. Sources: Road Controlling Authorities (RCA); BERL

Road expenditure was up 0.3% per GDP in 2008 from 10.8% in 2007. Expenditure on roads has risen 63% from 2002.

The AMR data documents a worsening trend as more money is spent on running the public transport service per passenger and building and maintaining roads per unit of GDP. However, it is expected that already committed investments will stimulate public transport patronage and GDP growth respectively.

These targets signal Greater Wellington's desire to see long term gains in the financial efficiency of the land transport network.

Significant factors influencing this outcome are the levels of investment in road and public transport projects and activities, economic and population growth, and mode shift for total trips within the region. GWRC acts in cooperation with local councils and central government agencies for a level of funding in accordance with the strategic objectives and outcomes as set out in the RLTS, but has no to some influence over the other factors respectively.

Currently, it is expected that roading expenditure will significantly increase in the Wellington region with the announcement of the suite of projects around the State Highway 1 Wellington Northern Corridor Road of National Significance (RoNS).

It is also expected that the level of expenditure on public transport expenditure will decrease once the current committed network and rolling stock projects are completed.

Both these expected expenditure changes run counter to the intention of the two related targets, and therefore are now considered unrealistic. However, they do provide useful information to potentially help interpret ‘value for money’ in terms of transport efficiency measured operationally by mode share, reduced congestion and single occupancy vehicle targets.

It is recommended to remove these targets, but continue to include the measures in the AMR.

Since these two targets are the only measures for this related outcome, it is also recommended to remove Outcome 6.4 – Improved transport efficiency.

Outcome 7.2 – Improved inter-regional freight efficiency

2016 RLTS target	All infrastructure constraints to rail freight movements are removed
NZTS national target	Increase rail freight share to 25% of tonnes per km by 2040
TMIF Indicators	FT009 Freight tonne-kilometres - inter-regional mode share (no data available)

Table 22: RLTS outcome 7.2 target breakdown and TMIF data availability

Is it the right measure?

The RLTS related target is broadly consistent with the NZTS national target, as both seek to increase freight rail mode share.

The related target is meant to encourage improvement on the rail network to make rail freight more competitive and feasible for long haul trips. By moving long distance heavy load freight off the roads, follow-on benefits are expected including reduced maintenance cost for road repairs, reduced congestion and travel time variability, reduced travel times along key routes, and improved safety.

Rail freight information is commercially sensitive and amounts of freight movement by different modes are measured in different units that are not comparable.

Therefore, it is recommended that the measure of this target not be changed.

Is the target right?

The infrastructure constraints on rail freight movements are currently being addressed by KiwiRail in cooperation with GWRC and local authorities. The AMR contains an indicator for the amount of inter-regional freight moving through the Wellington region through the port, by ferry, road and rail as an index set to 1997 amounts for each. Rail freight is measured as total tonnes moved, not on a per kilometre basis.

The significant factor influencing this outcome is the level of investment on the rail network. GWRC acts in cooperation with local councils and central government for funding in line with the strategic objectives and outcomes set out in the RLTS and the Regional Rail Plan.

The current absence of regional data from the TMIF suggests that no change to the current target setting is necessary.

Conclusions

This section details the conclusion laid out in the paper.

Overall target analysis

The analysis of the targets for the 2007-16 RLTS key and related outcomes shows that there is general consistency and good alignment between the NZTS national level targets.

Often regional indicators and national indicators utilise different sources of information, but in most cases the differences are relatively minor. There are no significant gaps in reporting methods between NZTS national targets and RLTS key outcome stretch targets.

There is less consistency amongst the RLTS related outcomes and associated targets with national level NZTS targets and TMIF indicators. However, this is to be expected as the RLTS related outcomes correspond primarily to issues specific to the Wellington region.

The removal of related outcome 6.4 – Improved transport efficiency is not considered significant enough to change the ‘refresh’ nature of this RLTS review.

Inter-regional outcome

The inclusion of inter-regional outcomes is a new requirement of the amended legislation (LTMA 77(a)). Talks with Horizons Regional Council and the technical working group lead to an agreed inter-regional outcome of: **Improved safety, efficiency and reliability of strategic road, public transport and freight links to the north of the region.**

This outcome would encompass the SH1 Road of National Significance, North Island Main Trunk rail line as well as SH2 through Wairarapa.

Measurement of this outcome would consist of references to the targets for RLTS outcome 4.1 (congestion), 4.3 (reliability), 5.1 (safety) and 7.2 (inter-regional freight) interpreted in an inter-regional context.

Preliminary recommendations

Objective 5 of this paper is to set out recommendations for changes to the 2007-16 RLTS targets.

The following table lists the RLTS outcome targets, the principle that guided the 2016 target setting, and recommendations based on the above NZTS and TMIF analysis.

These recommendations are preliminary as no final decision has yet been made on the timeframe the RLTS targets will cover, or the composition of the targets in the forthcoming 2010 – 2040 RLTS.

RLTS key outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
1.1 Increased peak period public transport mode share	Passenger transport accounts for at least 25 million peak period trips per annum	Double public transport use compared to 2005/06	Public transport accounts for at least 23 million peak period trips per annum	Continue significant growth in public transport use, taking account of current trends and projections
	Passenger transport accounts for at least 21% of all region wide journey to work trips	Public transport more competitive with private car	Public transport accounts for at least 21% of all region wide journey to work trips	Continue significant growth in public transport mode share
2.1 Increased mode share for pedestrians and cyclists	NEW TARGET	NEW TARGET	Increase active mode use to at least 30% of all trips in urban areas	NEW – continue significant growth in active mode use
	Active modes account for at least 15% of region wide journey to work trips	Increase use and safety of walking and cycling	Active modes account for at least 16% of region wide journey to work trips	Continue significant growth in the use of active modes for journey to work trips
3.1 Reduced greenhouse gas emissions	Transport generated CO ₂ emissions will remain below 1,065 kilotonnes per annum	Hold the line at 2001 levels	Transport generated CO ₂ emissions will be maintained below year 2001 levels	Hold the line despite population and economic growth
4.1 Reduced severe road congestion	Average congestion on selected roads will remain below 20 seconds delay per km travelled despite traffic growth	Hold the line at 2003 levels	Average congestion on selected roads will remain below year 2003 levels despite traffic growth	Hold the line despite projected traffic increases

RLTS key outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
5.1 Improved regional road safety	There are no road crash fatalities attributable to roading network deficiencies	Road design does not contribute to fatal road crashes	There are no road crash fatalities attributable to roading network deficiencies	Ensure the road network is engineered to be as safe as reasonably possible
	NEW TARGET	NEW TARGET	Continuous reduction in the number of killed and seriously injured on the region's roads	Reverse current trends in road casualties 20% reduction in fatal and serious road casualties over 12 years equates to around 300 by 2020
6.1 Improved land use and transport integration (in line with the WRS and local authority urban development strategies)	All large subdivisions and developments include appropriate provision for walking, cycling and public transport	Increase use and safety of public transport, walking and cycling	All new subdivisions and developments include provision for walking, cycling and public transport as appropriate	Ensure all new subdivision and developments appropriately account for potential walking, cycling and public transport benefits
7.1 Improved regional freight efficiency	Improved road journey times for freight traffic between key destinations	Improve regional freight transport efficiency	Improved road journey times for freight traffic between key destinations	Encourage and facilitate economic growth
8.1 Improved safety, efficiency and reliability of strategic road, public transport and freight links to the north of the region	NEW TARGET	NEW TARGET	Progress measured using information collected for congestion (4.1), reliability (4.3), safety (5.1) and inter-regional freight (7..2)	Ensure vital links between Wellington and the rest of the North Island are maintained and improved

RLTS related outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
1.2 Increased off-peak public transport use and community connectedness	Passenger transport account for at least 25 million off peak period trips per annum	Increase PT competitiveness for journey to work trips	Public transport account for at least 23 million off peak period trips per annum	Continue significant growth in off-peak public transport trips
1.3 Improved public transport accessibility for all, including the transport disadvantaged	80% of passenger transport services are guaranteed to be wheelchair accessible	Significantly improve disabled groups access to public transport	90% of public transport services are guaranteed to be wheelchair accessible	Improve accessibility for those with physical disabilities
	Most of the region's residents live within 400 metres (5 min walk) of a bus stop or train station with a service frequency of at least 30 minutes	Improve coverage of public transport services	65% of the region's residents live within 400 metres (5 min walk) and 80% within 800 metres of a bus stop or train station with a service frequency of at least 30 min	Improve regional coverage and reach of the public transport network
	Passenger transport services in the highest deprivation areas are more affordable	Improve affordability of public transport to low-income groups	REMOVE	Deprived areas are only one part of the transport disadvantaged. The Regional Public Transport Plan addresses the affordability of services to the transport disadvantaged
1.4 Reduced public transport journey times compared to travel by private car	Peak period passenger transport journey times are equal to or better than a similar journey undertaken by a private car for key selected corridors	Make public transport more competitive with private vehicle use	Continual reduction of peak period public transport journey times relative to a similar journey by private car for key selected corridors	Improve competitiveness between peak period public transport services and private cars without significant deterioration of private vehicle service
1.5 Increased public transport reliability	Nearly all bus and train services run on time	Provide a reliable public transport service	Continual improvement to bus and train services running to time	Improve reliability of public transport services

RLTS related outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
2.2 Improved level of service for pedestrians and cyclists	All of the strategic cycle network provides an acceptable level of service	Increase use and safety of cycling	70% of people report a “good” or “neither good nor bad” level of service for the strategic cycle network	Encourage continued growth in cyclist numbers Improve cyclist safety
	Nearly all urban road frontages are served by a footpath	Increase use and safety of pedestrians	95% of people report a “good” or “neither good nor bad” level of service for the strategic pedestrian network	Encourage continued growth in pedestrian numbers Improve pedestrian safety
2.3 Increased safety for pedestrians and cyclists	Fewer than 100 pedestrians injured in the region per annum	Reduce by one-third the 2005 regional pedestrian casualty levels	A reduction in the number of pedestrian casualties to no more than 125	Pedestrians are particularly vulnerable transport users Reduce pedestrian casualties by 25% over 12 years from 2008 levels, taking account of current trends and increased use
	Fewer than 75 cyclists injured in the region per annum	Reduce by one-third the 2005 regional cyclist casualty levels	A reduction in the number of cyclist casualties to no more than 110	Cyclists are especially vulnerable transport users Reduce cyclist casualties by 25% over 12 years from 2008 levels, taking account of current trends and pressures
3.2 Reduced private car mode share	Private vehicles account for no more than 62% of region wide journey to work trips	Continue reduced rate of private vehicle journey to work trips (converse of PT, walk, cycle trips)	Private vehicles account for no more than 61% of region wide journey to work trips	Limit the growth of commuter road traffic volumes from private vehicles

RLTS related outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
3.3 Reduced fuel consumption	No more than 442 mega litres of petrol and diesel per annum will be used for transport purposes	Hold the line at 2001 levels	Petrol and diesel per annum used for transport purposes will remain below year 2001 levels	Hold the line along with the CO ₂ target
3.4 Increased private vehicle occupancy	Vehicles entering the Wellington CBD during the 2 hour AM peak contain on average at least 1.5 people per vehicle	Making more efficient use of the existing system	Vehicles entering the Wellington CBD during the 2 hour AM peak contain on average at least 1.5 people per vehicle	Improve the efficiency of the road network
4.2 Maintained vehicle travel times between communities and regional destinations	No decrease in average vehicle journey "speeds" shown in travel time surveys for selected routes	Making more efficient use of the existing system	Average vehicle journey "speeds" shown in travel time surveys for selected routes will remain at or above 2003 levels	Hold the line despite projected traffic increases
4.3 Improved reliability of the strategic roading network	Key routes are very rarely affected by closure	Maintain reliability of road travel times	Continual reduction in total incident hours	Improve safety of the road network Ensure roads are engineered to recover as quickly as possible after natural hazard incidents
6.2 Improved integration between transport modes	The majority of passenger transport services covered by integrated ticketing	Improve integration of rail and bus services	The majority of public transport services covered by integrated ticketing	Provide a transport system that is easy and simple to use
	NEW TARGET	NEW TARGET	Continued improvement in walking, cycle and park 'n ride facilities at and around public transport interchanges	NEW – continue integrating all modes
6.3 Sustainable economic development supported	Reduced vehicle kilometres travelled per GDP	Decouple road traffic growth from economic growth	Continued reduction in vehicle kilometres travelled per GDP	Improve the travel efficiency of economic growth

RLTS related outcomes	Current RLTS 2016 target	Principle of 2016 target	Proposed RLTS 2020 target	Principle of 2020 target
6.4 Improved transport efficiency	Reduced passenger transport expenditure per passenger	Make PT expenditure more efficient per passenger (economies of scale)	REMOVE	NZ Transport Agency funding efficiency tests are a better mechanism than a strategy target
	Reduced roading expenditure per GDP	Decouple road investment from economic growth	REMOVE	NZ Transport Agency funding efficiency tests are a better mechanism than a strategy target
7.2 Improved inter-regional freight efficiency	All infrastructure constraints to rail freight movements are removed	Improve regional freight transport efficiency	All infrastructure constraints to rail freight movements are removed	Increase competitiveness of rail for long haul freight movement