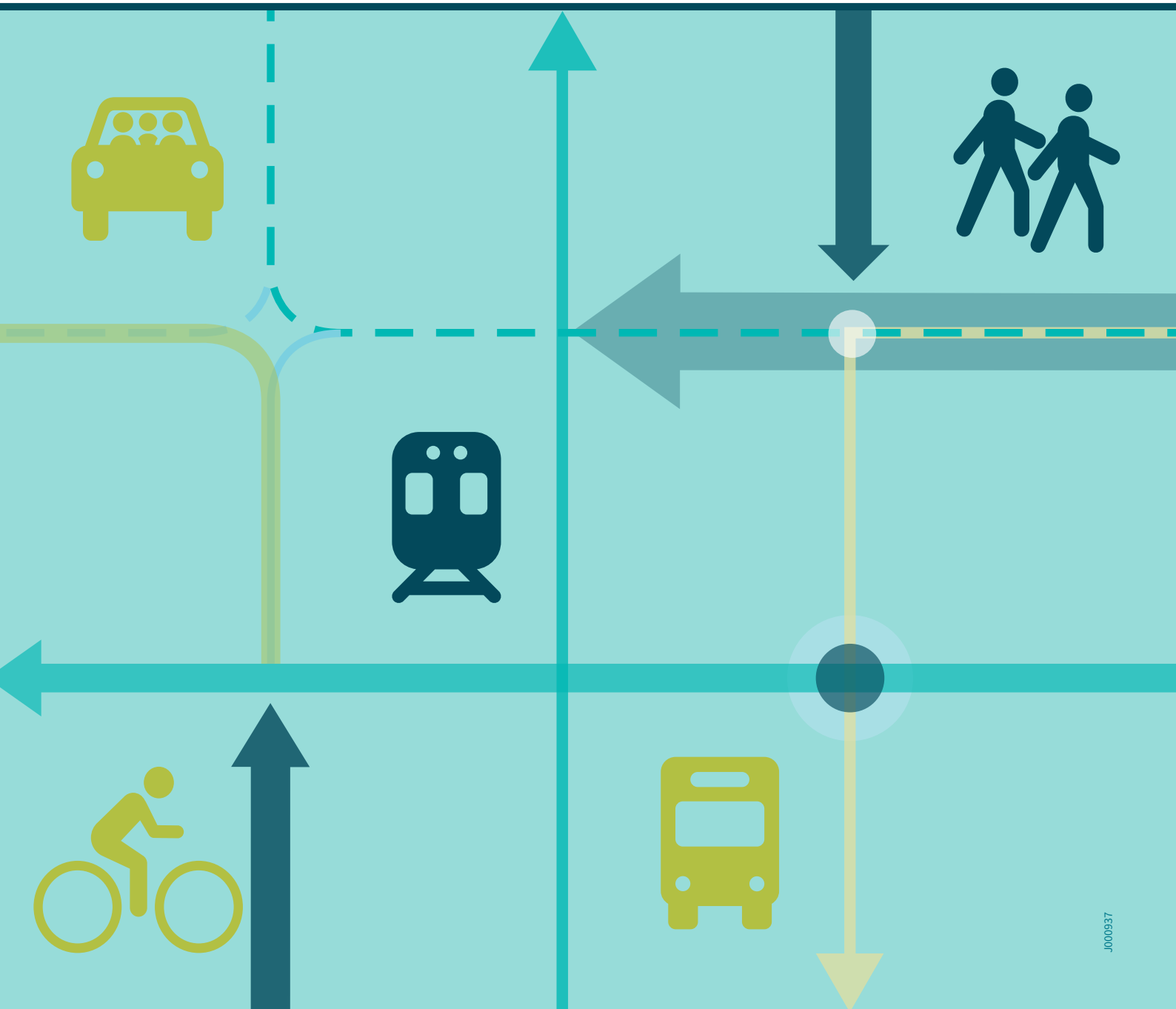
2018/19 ANNUAL MONITORING REPORT ON THE REGIONAL LAND TRANSPORT PLAN

OCTOBER 2019

greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao



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Executive Summary

The Wellington Regional Land Transport Plan (RLTP) sets out the strategic direction for the region's land transport network. It includes a policy framework comprising eight strategic objectives and 20 outcomes to guide land transport planning and investment for the region. The strategic objectives and outcomes in the RLTP have been developed in response to the major transport challenges and issues facing the region.

This Annual Monitoring Report (AMR) has been prepared to measure progress against the RLTP outcomes and associated targets. It covers the 2018/19 financial year and represents the fifth year of monitoring since the RLTP was adopted in April 2015. This report presents data and information on the 20 RLTP outcomes, each with at least one measure and target. Unfortunately the 2018 census data is not yet available and this affects 5 measures; these come under proximity to public transport (PT), journey to work data and mode share.

The available information tells us that more people are using public transport in the region, there are more people cycling in urban areas; and latest results indicate an increase in the perceived level of service for cycling.

There is a slight increase in transport emissions (CO2) per person and a steady increase in absolute transport emissions. The trend in public transport vehicle fleet emissions shows reduced average harmful emissions per bus (g/km) due to a high proportion of new vehicles in the bus fleet compared to 2017/18.

Table 1 lists each outcome with the RLTP 2025 target and 2013/14 baseline. The results for each measure for 2018/19 are shown (if available) and progress is indicated by colour and symbols according to short term or 5 year trend – defined in the legend below.

Table 1 legend

Definitions used in summary table	
2018/19 data	The latest results on the measure - if data is available
Short term trend	The trend is based on 2 to 4 years of results so trend might change
5 year trend	Where the measure has at least five years of data, the long term trend is determined, and colour coding and arrows indicate the progress of the trend in relation to the RLTP and direction of results
	Observed progress in relation to RLTP Target
	The general direction of the data trend is positive and heading toward the target
↔	Generally the results have not changed indicating no obvious direction or Neutral trend
	The general direction of the data trend is away from the target
	A new data series or no information at this time
↑	Results are increasing
↓	Results are decreasing
✓	RLTP Target achieved

Table 1: Summary of RLTP measures for each strategic objective and outcome

Objective: A high quality, reliable public transport network

Outcome	Measure	2025 target	Baseline	2018/19 data	Short term trend	5 year trend	Comment
Increased public transport use	Annual public transport boardings per capita	Increase to at least 76 boardings	72 boardings in 2013	74.3 per capita	↑	↑	4.0 % increase in the last five years.
	Public transport mode share of journey-to-work trips (census)	Increase to at least 17.8%	16.6% in 2013	-	↑		2018 Census data will update this indicator in the 2020 AMR.
	Public transport mode share of trips crossing Wellington City CBD cordon (AM peak)	Increase to at least 34.7%	33.1% in 2013	34.0%	↔	↑	Mode share drops slightly in short term but longer term trend is generally positive.
Improved public transport accessibility for all	Population living within 500m of a core bus service or 1km of a railway station (census)	Improvement toward at least 50%	41.6% in 2013	-	↑		2018 Census data will update this indicator in the 2020 AMR.
	Population living within 500m of any bus stop or 1km of a railway station.	Improvement toward at least 88%	87.6% in 2013	-	↑		2018 Census data will update this indicator in the 2020 AMR.
	Accessibility to public transport network for all users	Continual improvement in physical accessibility and standards of vehicles, parking and facilities.	A comprehensive range of bus and rail facilities for customers.	22 new and upgraded bus stops	↑	↑	A range of work on bus and rail services have been implemented to improve customer accessibility.
Improved quality of public transport	Public transport vehicle fleet	At least a 50% reduction in harmful emissions (average 15 g/km per bus)	2014 emissions 29.6 g/km^3	12.5 g/km^3	✓	✓	The majority of the bus fleet are low emission diesel buses. The 2025 target has been reached.
	Overall satisfaction with the Wellington region's public transport system (all modes)	At least 90%	83% (2014)	69%	↓	↓	Level of customer satisfaction with PT has dropped in the last year.
Improved public transport reliability and journey times	Peak period public transport travel times on core routes	A continuous improvement on core routes	bus travel times: 41 min AM & 40 min PM (2014)	38.1 mins AM 36.2 mins PM	↔	↓	Average bus travel times gradually decrease over five years.
	Peak period bus travel time variability on core routes	A continuous improvement in variability along core routes	Ave lateness: 3.8 minutes AM 3.2 minutes PM (2014)	4.2 mins AM 2.8 mins PM	↑	↑	Some fluctuation in the last five years with recent increase in travel time lateness, particularly in AM peak
	Rail service punctuality	At least 96% of services reach destination within 5 mins of timetabled time	88% in 2017	88.3%	↔		This is the third year for this data series, punctuality rating is unchanged from last year.

Outcome	Measure	2025 target	Baseline	2018/19 data	Short term trend	5 year trend	Comment
Objective: A reliable & effective strategic road network							
Reduced severe road congestion	Rolling average peak period travel speeds on selected strategic routes	A 10% increase in 3 year rolling average travel speed (40 km/hr AM, 45 km/hr PM)	36 km/hr AM 41 km/hr PM (2016)	35 km/hr AM 40 km/hr PM	↔		Short term trend only because this is the fourth year for this data series. Travel speed unchanged from last year for AM & PM.
Improved reliability of the strategic road network	Average peak travel time predictability on selected strategic routes	A 10% increase in the 3 year rolling average predictability (71% AM, 73% PM)	64% AM 66% PM (2016)	63% AM 64% PM	↔		Short term trend only because this is the fourth year for this data series. Results show little change in travel time predictability.
Objective: An effective network for the movement of freight							
Improved freight efficiency	Rolling average all-day travel speeds on important regional freight routes	A 10% increase in average travel speed (68 km/hr inbound, 66 km/hr outbound)	62 km/hr inbound, 60 km/hr outbound (2016)	62 km/hr Inbound 61 km/hr Outbound	↔		Small to no change in average travel speed for freight. Not enough data yet for five year trend.
	Average all-day travel speed predictability on important regional freight routes	A 10% increase in travel time predictability (95% inbound, 93% outbound)	86% inbound 85% outbound (2016)	96% inbound 96% outbound	✓		Ten percentage point increase in predictability over the last four years. RLTP target reached this year.
Increased proportion of freight moved by rail	Percentage of long distance freight volumes moved by rail	An increasing proportion of freight moved by rail	4.8% of freight by rail (2012)	4.9% of freight by rail (2018)	↑	↑	Rail freight volumes moving in and out of the region have increased and proportion of freight is up slightly.
Objective: A safer system for all users of our regional road network							
Improved regional road safety	Killed and seriously injured totals, measured on an annual basis against a 5-year rolling average (CAS data)	At least a 50% reduction in 5 year average (total below 92 seriously injured or killed)	183 killed or seriously injured people (2013)	240 deaths or seriously injured	↑	↑	The number of people seriously injured has increased each year for the last four years.
	Total casualties on an annual basis against a 5-year rolling average (CAS data)	At least a 50% reduction in 5 year average (below 540 casualties)	1,080 casualties (2013)	1042 casualties	↑	↑	In the last 4 years a 13% increase in number of casualties.
Increased safety for pedestrians and cyclists	The number of vulnerable road users (cyclists and pedestrians) killed and seriously injured annually against a 5-year rolling average (CAS data)	At least a 50% reduction in 5 year average (below 28 killed or seriously injured)	53 killed or seriously injured (2013)	56 killed or seriously injured	↑	↑	The vulnerable road users killed or injured rises for the first time in five years.

An increasingly resilient transport network							
Outcome	**Measure**	**2025 target**	**Baseline**	**2018/19 data**	**Short term trend**	**5 year trend**	**Comment**
Improved transport infrastructure resilience to disruption from unplanned events	Proportion of region covered by an adopted regional risk register	100% - risk register by 2017 and agreed prioritisation methodology by 2019	Project list	Up-to-date regional risk register produced	✓	✓	The risk register provides a list of regional network priorities. This will be updated as work is completed.
A transport network that supports the restoration of access and regional recovery after a major event	Estimated time to reopen key road connections to and within the region and to key recovery facilities.	Continuous reduction in number of days to reopen the transport network	Existing emergency plan estimates (2014)	-	↓	↓	Transport network projects that are planned or under construction will help to improve resilience and reduce the recovery time.
Reduced regional economic risk	Proportion of region covered by an adopted and comprehensive regional restoration and emergency plan	100%	Existing regional restoration emergency plans(2014)	Group plan and emergency plan finalised	↑	↑	Progress is ongoing on emergency and recovery planning for the region.
Objective: A well planned, connected and integrated transport network							
Improved land use and transport integration	Population living within 500m of any bus stop or 1km of a railway station	Continual improvement towards 88%	87.6% in 2013	-	↑		Estimates show a small increase in number of people in close proximity to public transport, an update using the 2018 census data will be in the 2020 AMR.
Improved integration between transport modes	Number of secure cycle parking spaces at railway stations.	Increase by 50% (441 cycle spaces)	294 cycles spaces (2013)	385 cycle spaces	↑	↑	24 new cycle parking spaces this year.
Objective: An attractive and safe walking and cycling network							
Increased mode share for pedestrians and cyclists	Proportion of journey to work trips by walking	13.6% of journey to work trips	11.6% in 2013	-	↑		A slow upward trend from 2001 & 2013 census results
	Proportion of journey to work trips by bike	4.6% of journey to work	2.9% in 2013	-	↑		A slow upward trend from 2001 & 2013 census results
	Proportion of urban trips by walking	20.1% of trips crossing the CBD cordon	18.4% in 2013	16.7%	↔	↔	Pedestrian mode share is fluctuating in the long term due to recent increase in private motor vehicle mode share
	Proportion of urban trips by bike	4.6% of trips crossing Wellington CBD cordon	2.6% in 2013	2.7%	↔	↔	Cycling mode share has not changed significantly in the last five years
Improved level of service for pedestrians and cyclists	Perception of level of service for cyclists and pedestrians	95% and 60% level of service (walking & cycling)	Walking 90% Cycling 50% (2013)	2019 results: Walking 82% Cycling 52%	↑	↔	The perceived level of service for cyclists has increased in short term and for pedestrians a decrease.
Increased use of active modes for journeys to school	Use of active modes in journeys to school for those participating in the School Travel Plan programme.	Continually increasing use of active modes	27% walking, 13% cycle, scooter or skateboard (2013).	2014 results: 26% walking 14.5% cycle or scooter	↔		The online reporting tool for schools to record student travel is being rebuilt. School data will be available in 2020.

Objective: An efficient and optimised transport system that minimises the impact on the environment							
Outcome	**Measure**	**2025 target**	**Baseline**	**2018/19 data**	Short term trend	5 year trend	**Comment**
Reduced harmful emissions from transport	Transport generated emissions (per capita)	15% reduction in annual per capita CO_2 emissions (1.86 tonnes per capita)	2.18 tonnes per capita (2013)	2.28 tonnes per capita	↔	↑	Emissions per capita same as last year but increased by 5% in the last 5 years.
	Transport generated emissions (absolute)	10% reduction in total annual CO_2 emissions (956 kilo tonnes)	1,062 kilo tonnes (2013)	1,208 kilotonnes	↑	↑	A 12% increase in emissions in the last 5 years.
	Concentrations of harmful transport-generated pollutants	A reduction in the average concentration of harmful transport pollutants (20.2 µg/m^3)	22.4 µg/m^3 (2013)	20.5 µg/m^3	↓	↓	Since 2013, average pollutant levels have decreased by 8%.
Increased private vehicle occupancy	Peak period private vehicle occupancy	Gradual increase in private vehicle occupancy to 1.45	1.39 people per vehicle (2013)	1.37	↑	↔	Occupancy rate continues to fluctuate by small amounts but are still below the 2025 target.

Transport highlights for 2018/19

A number of major projects and milestones occurred during the 2018/19 financial year, a few examples are:

- **Significant investment in regional rail**

Government funding for two rail network infrastructure projects**:**

- ❖ Track Infrastructure Catch-up Renewals $95.8m – which will improve the track infrastructure, particularly on the Wairarapa Line
- ❖ Unlocking Capacity and Improving Resilience $97.7m – which will enable increased service frequency on the Hutt and Kapiti Lines, through improvements such as double tracking between Trentham and Upper Hutt and upgrades in traction power on the Kapiti Line.

- **Let's get Wellington Moving**

On 16 May 2019 the indicative package for LGWM was announced. Central Government has committed to funding 60% ($2.2 billion uninflated) of the indicative package (total cost $3.6 billion), and Wellington City Council and Greater Wellington will fund the remaining 40% ($1.4 billion). The key components of the indicative package are listed below:

- ❖ A walkable city – accessibility and amenity improvements
- ❖ Connected cycleways – Featherston St, Courtney place, Dixon St, Taranaki St, Kent and Cambridge Tce, Willis St, Victoria St & Dixon St.
- ❖ Public transport to and through the city – Dual PT spine in central Wellington, bus priority on Thorndon Quay and Hutt Road.
- ❖ Smarter transport network - integrated ticketing, demand management
- ❖ Mass transit – from Wellington railway station to Newtown and the airport
- ❖ Unblocking the Basin Reserve
- ❖ Extra Mount Victoria Tunnel

- **National ticketing project NEXT**

This is a long term programme designed to procure a ticketing system for journeys on public transport in New Zealand. Project NEXT is currently in the procurement phase. The ticketing system will be procured in two parts: one for the core ticketing solution and related services; and the other procurement for financial services.

A high quality reliable public transport network

This section focuses on public transport: on increasing patronage, reliability, quality and accessibility.

	MEASURE + Five year trend
Annual public transport boardings per capita	↑
Public transport mode share of trips crossing Wellington City CBD cordon (AM peak)	↑
Accessibility to public transport network for all users	↑
Public transport vehicle fleet emissions (average g/km)	↓
Overall satisfaction with the Wellington region's public transport system (all modes)	↓
Peak period public transport travel times on core routes	↓
Peak period bus travel time lateness on core routes	↑

Note: Only measures with enough data to indicate a five year trend are included.

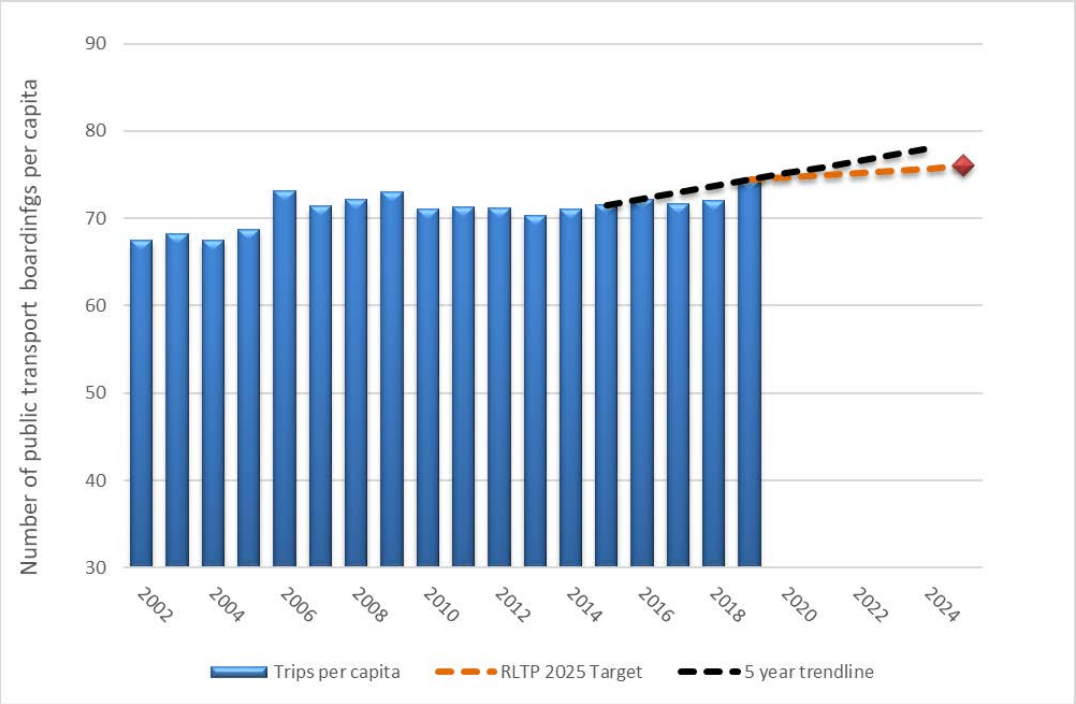
Increased public transport use

The Wellington region has a high quality, well used public transport network of bus, train and harbour ferry services. Wellington residents are high users of public transport with New Zealand's highest number of public transport boardings per capita and high mode share compared to other regions. **Figure 1** shows the annual number of public transport trips per capita taken by train, bus and ferry. It is calculated using annual public transport patronage and regional population.

In 2018/19, approximately 39.3 million public transport annual trips were made, equating to:

- 74.4 public transport boardings per capita
- Boardings per capita have increased by 4% in the last five years.
- The RLTP target is 76 boardings per capita by 2025 (indicated by the orange marker in **Figure 1**) the 5 year trend line is moving toward the target.
- From 2017/18 a change was made to the way PT boardings are reported; all non-contracted bus services were removed from patronage counts.

Figure 1: Annual public transport boardings per capita (2002-2019)



DATA SOURCE: METLINK, GWRC

The second measure for increased public transport participation comes from the journey to work data from the Census. Public transport mode share was 16.6% in the region in 2013 and the RLTP target is at least 17.8% mode share in 2025. An update on this measure (from the 2018 census) will be available in the next AMR.

Public transport mode share is also measured using the annual March cordon survey. This is a count of the people entering the Wellington City CBD by public transport during morning peak travel times. In the same month Wellington City Council (WCC) commissions a survey that counts vehicles, pedestrians and cyclists crossing into the Wellington City CBD cordon during morning peak (7am to 9am).

The mode counts from the GWRC and WCC cordon surveys are used to work out mode share for the Wellington CBD. The time series for the main transport modes is shown in **Figure 2**. Generally motor vehicle mode share has been shrinking as PT mode share increases (since 2001)[1].

It should be noted that the CBD cordon survey only covers a short time period (7am to 9am) and looks at all trip purposes (unlike the Census that only covers journeys to work). Variations can occur from one year to the next due to day-to-day variability/weather; the focus should therefore be on the medium to longer term trend, which in this case is an increase in PT / active mode share and decrease in car mode share.

Figure 2: Wellington City cordon mode share – all modes

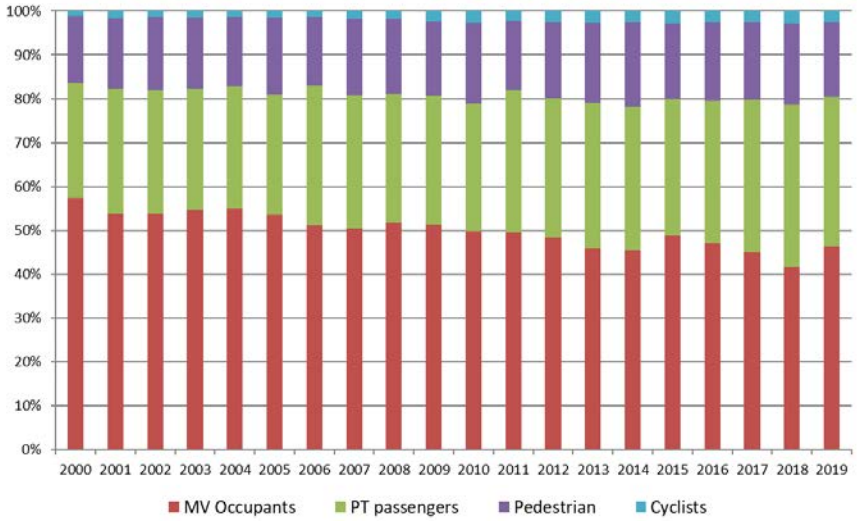
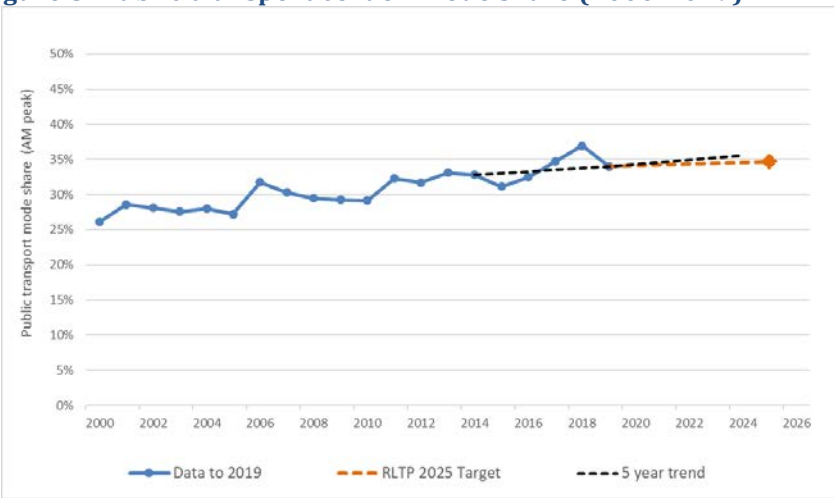


Figure 3: Public transport cordon mode share (2000-2019)



Data source: GWRC

[1] Other traffic monitoring shows that motor vehicle volumes are not declining but there is an increase in number of vehicles travelling into the city before morning peak periods.

Figure 3 shows public transport trips crossing the Wellington City CBD cordon during the AM peak 2 hour period (7am to 9am). In 2019 the mode share for public transport is 34.0%; this is 4 percentage point increase over the last five years. This year's mode share is just below the RLTP target of 34.7% and a drop of 2 percentage points from last year's result.

Improved public transport accessibility for all

Access to public transport is monitored using three outcomes: two that measure the proportion of the population living in the vicinity of public transport and the third measures accessibility to the public transport in terms of infrastructure, information and facilities.

The first and second measure looks at those residents within the vicinity of core bus route and from railway stations in the region. Unfortunately the small area data from the 2018 census is not yet available. An update for this measure will be available for the 2020 AMR.

Accessibility to the public transport network is evaluated by looking at the investment in transport infrastructure in the region. There are numerous projects and ongoing work to build or upgrade bus and rail facilities. This contributes to improved accessibility for public transport users around the region, examples of these for bus and rail are:

- Seismic upgrade to overbridge at Ava railway station completed
- Carterton historic station building was seismically upgraded and repaired
- Work on the Porirua and Waterloo Interchange upgrades have begun
- Tactile pavers and other wayfinding information added at key bus and rail interchanges
- 170 additional Park & Ride spaces at Porirua station.
- 49 new or upgraded bus shelters installed and 22 new or modified bus stops
- New handrails have been installed to improve accessibility at Awarua Street, Epuni and Taita stations
- Successful trial of an on-bus announcement system similar to those already in place on Metlink trains

Drop zones at railway stations:
In response to the rapid increase in shared mobility usage, including bike share and electric scooters, we are in the process of implementing trial drop zones at Petone, Waterloo and Upper Hutt railway stations. It is hoped the drop zones will encourage shared mobility vehicles to be left in a safe and convenient location rather than left in potentially dangerous locations (i.e. on platforms).

Improved quality of public transport

There are two measures used in the RLTP to assess the quality of public transport in the Wellington region. These are: public transport vehicle fleet emissions and overall satisfaction with the region's public transport system.

The bus fleet emissions indicator is a proxy for PT vehicle quality. The indicator measures the composition of the fleet in terms of the emissions rating for each bus type (Euro 1 to Euro 6). Based on the overall fleet composition we can calculate average localised emissions per km[2]. Modern buses such as Euro 6 emit one tenth of the emissions of Euro 1 type buses (grams/km). Since 2014 the regional bus fleet has transitioned to modern low emission diesel buses and the fleet's average emissions per kilometre have decreased.

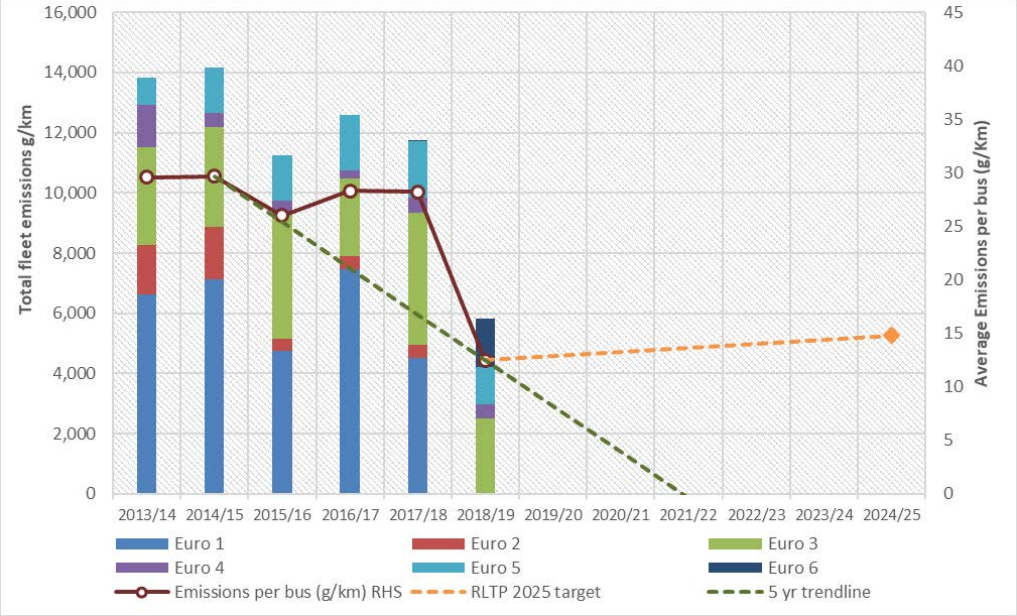
Figure 4 shows average bus emissions from 2014 to 2019 for Euro type buses 1-6.[3] In the year to July 2019 the fleet changed significantly from previous years; 72% of the fleet are now Euro 5 or above including the ten electric vehicles.

[2] Localised bus emissions are the sum of CO, HC, NO_x and PM_{10} emissions. CO2 emissions are not included in this indicator. The focus here is on emissions that impact on human health. Transport generated CO2 emissions are monitored under the environment objectives, page 30.
[3] The composition of the bus fleet can vary during the year due to the availability of buses for service.

The brown line in **Figure 4** shows the average emissions per bus per kilometre; in 2019 this was 12.5 g/km (units are on the right-hand side). Average emissions rating per bus have decreased by 58% from 2014 to 2019. The trend line (black dotted line) is downward which is consistent with a significant drop in average emissions.

The RLTP target is for a 50% reduction in fleet emissions, this is 14.8 g/km[4] (based on the 2014 average). Average emissions in 2018/19 was 12.5 g/km therefore the 2025 target was reached this year for this indicator.

Figure 4: Bus fleet emission's standard (per km) and RLTP target (2014-2019)



Data source: GWRC

The second measure designed to recognise public transport quality is customer satisfaction. The Metlink annual customer satisfaction survey asks passengers to rate overall satisfaction for the region's public transport network. This covers fleet, transport facilities, on-time performance and customer service.

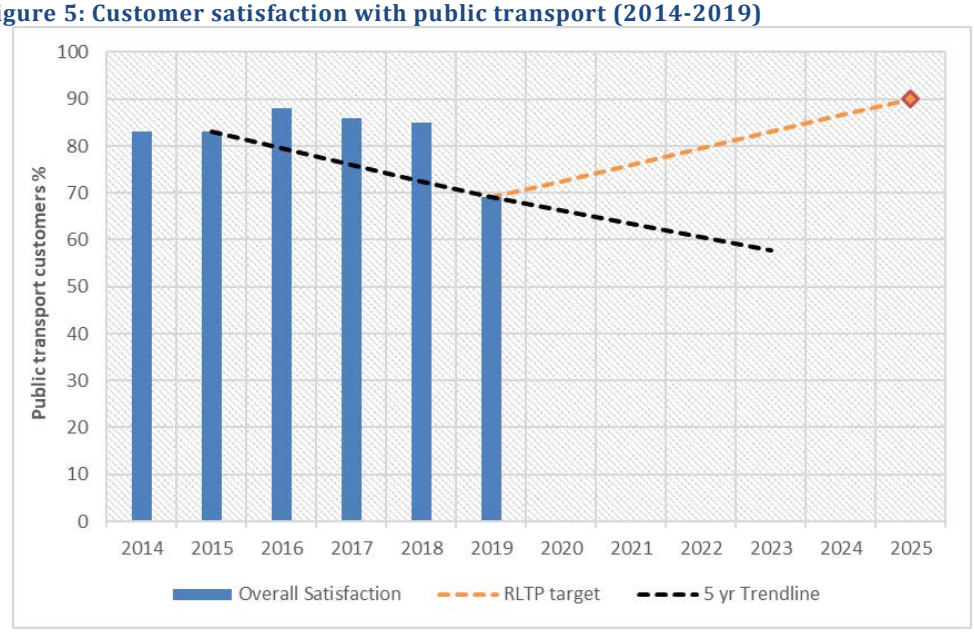
Figure 5 shows the results of the customer satisfaction survey from 2014-2019[5]. The 2019 Metlink survey found that 69% of customers were generally satisfied with the public transport service; this is a 16 percentage point drop, compared to the previous year this has reversed the direction of the trend line for this indicator, which is now tracking downward away from the target.

The RLTP target for this outcome is to achieve at least 90% overall satisfaction with the public transport for the region.

[4] The original target was changed from 12 to 14.9 g/km[3] in 2015 because monitoring for this indicator was expanded from Wellington bus fleet to include the regional fleet.

5 The Metlink survey has undergone changes to the methodology, so earlier survey results on customer satisfaction are not compatible with surveys for 2014 onwards.

Figure 5: Customer satisfaction with public transport (2014-2019)



Data source: Metlink

Improved public transport reliability and journey times

There are three measures used in the RLTP to assess public transport reliability and journey times in the Wellington region. These are: peak period public transport travel times on core routes, peak period bus travel time variability on core routes and rail service punctuality.

The Metlink network consists of three layers: core routes, local routes and targeted services. The **core routes** are the urban rail network and frequent bus services that form the network's backbone, linking areas of high demand with high-capacity, direct services with extensive operating hours[6].

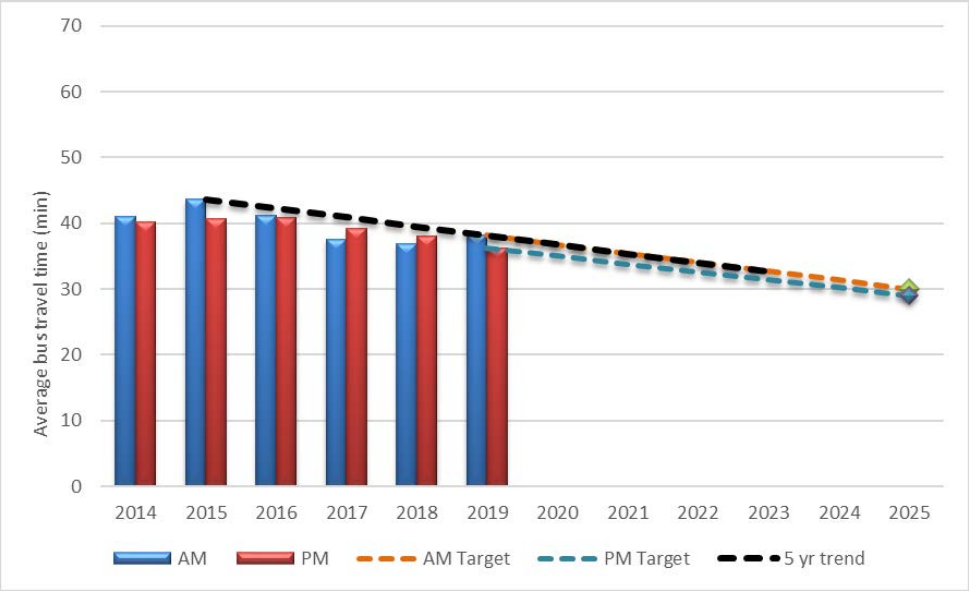
Figure 6 shows results for bus travel time on core routes during peak AM and PM hours (2014-2019). The data series began in 2014 due to a change to the methodology. In 2019 results show[7]:

- Average travel time during the AM peak has increased from 36 minutes (in 2018) to 38 minutes this year.
- PM peak average travel time reduced slightly, average is 36.2 minutes.
- Bus travel times have fallen by 3-4 minutes (average time) in AM and PM peak since 2014.
- The RLTP target is for continuous improvement in PT travel times to 2025, the 5 year trend line is tracking toward the target.

[6] The Core bus routes used to measure travel time & lateness are routes: 1,3,11,110,120 and 130

[7] Route changes in the last year meant that some routes were no longer comparable to previous years, to rectify this new routes were adjusted to match old routes therefore some results are considered approximate travel times.

Figure 6: Average bus travel times on core routes at AM and PM peak. (2014-2019)

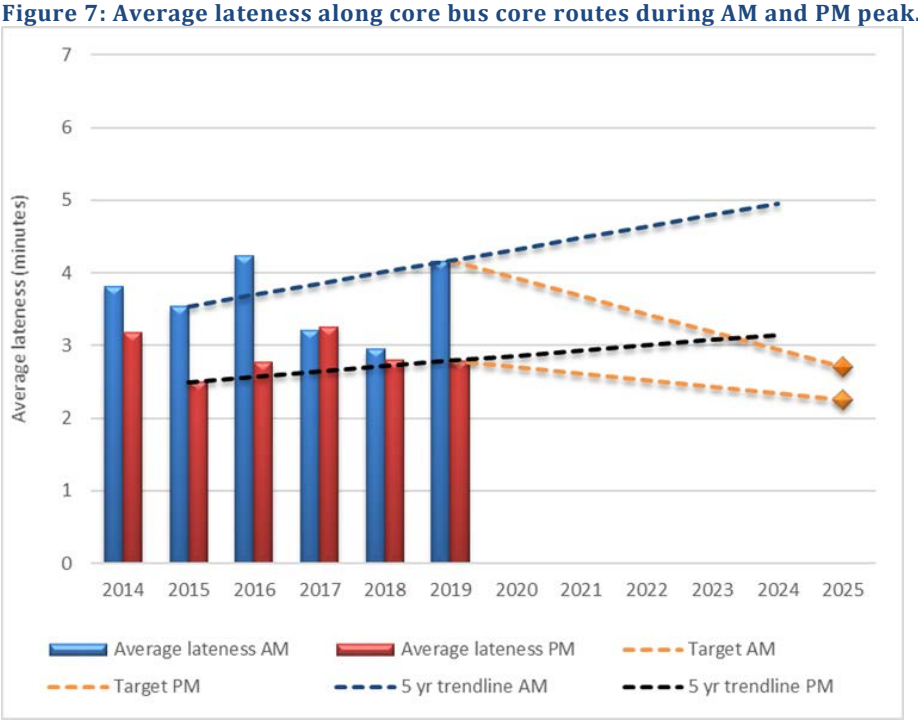


Data source: GWRC

Figure 7 shows the second measure for this outcome: average lateness which represents variability of bus times on core routes. Variability or lateness has increased for AM and decreased for PM peak since 2014:

- Small increase in lateness in AM peak travel since 2014 with increase from 3.8 minutes to 4.2 minutes
- PM lateness reduced from 3.2 minutes to 2.8 minutes in the PM peak from 2014 to 2019
- Travel time variability or lateness has fluctuated over the last five years.
- The trend line for AM moves away from the target as average lateness increases.

Figure 7: Average lateness along core bus core routes during AM and PM peak. (2014-2019)

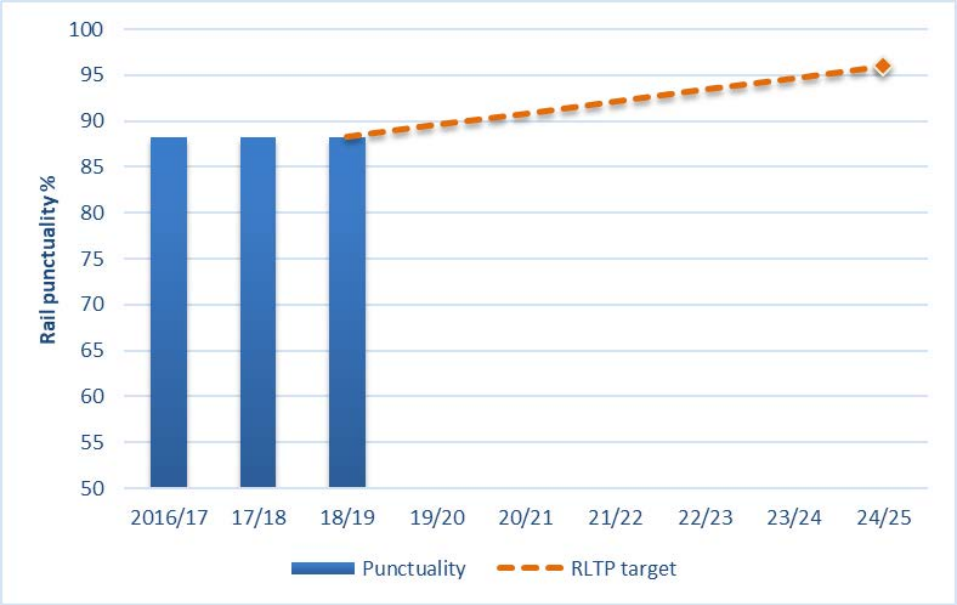


Data source: GWRC

Figure 8 shows the percentage of passenger rail services in the region which run to time. The punctuality rating refers to trains arriving at key stations[8] at the scheduled time and less than five minutes late.

The punctuality target of 96% was reached in 2016 using the original methodology for this measure. Since then the methodology for service punctuality has changed to include all key stations[9] (previously it was just Wellington station). Three years into the new methodology the punctuality rating is unchanged from previous years, at 88% for 2018/19. The 2025 target is at least 96% punctuality.

Figure 8: Percentage of rail services arriving on time (2016-2019)



Data source: GWRC

[8] Key stations are: Porirua, Waterloo, Upper Hutt, Featherston and Wellington
[9] Under the new operating contracts (with Transdev) revised performance measures were introduced in 2016.

A reliable and effective strategic road network

This section discusses transport outcomes that relate to the strategic road network, including road congestion and travel times.

	MEASURE + Short-term trend
Rolling average peak period travel speeds on selected strategic routes	↔
Average peak travel time predictability on selected strategic routes	↔

Reduced severe road congestion and improved reliability of strategic road network

Strategic routes consist of state highways and high volume regional roads[10]. The strategic network serves an important role for both inter-regional long distance trips and short to medium distance trips within the region. It provides access and connectivity for people and goods to key regional destinations.

This indicator uses GPS data obtained from commercial vehicles (including a mix of light, medium and heavy). The performance measures are based on March weekday average travel time and speeds for inbound AM peak and outbound PM peak vehicles on the six routes in the region.

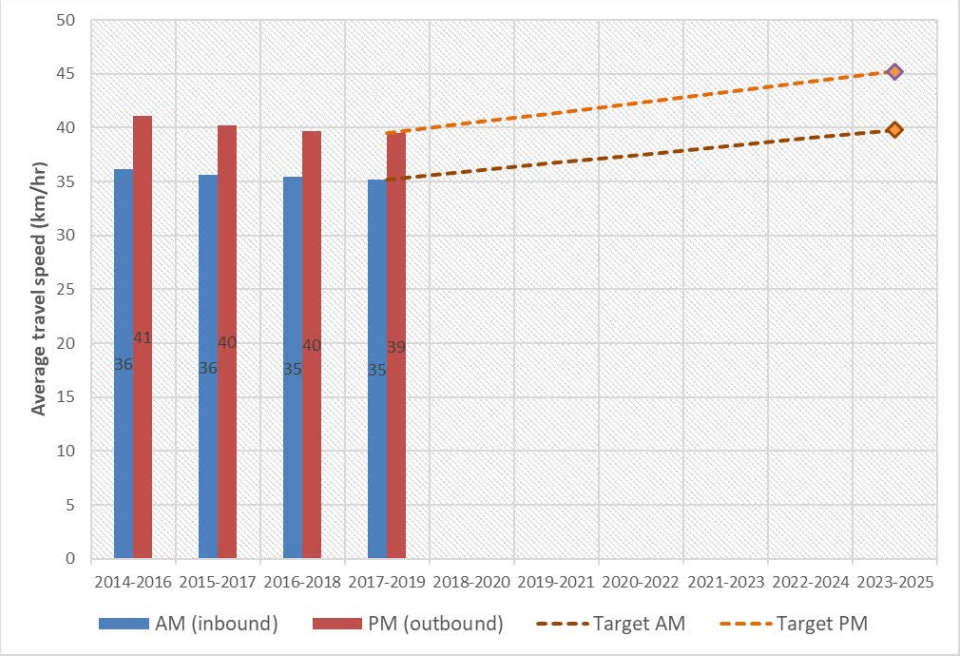
The travel time data is used to calculate the average vehicle speed for the road network which is used to indicate levels of congestion - as increasing travel speed over time implies that traffic is less congested.

Average travel speed on strategic routes

Figure 9 shows the average travel speed and RLTP target for the six strategic routes. The target is to increase the baseline travel speed by 10%. In 2019 the AM inbound and PM outbound average travel speed is 35.2 and 39.5 km/hr respectively. This is almost the same results as last year and therefore no advance toward the target.

The travel speed for inbound and outbound travel initially decreased followed by minor changes in the last three years. Findings indicate that traffic congestion on these routes is not improving, the increased travel demand is driven by increasing population and employment and a growing economy.

Figure 9: Three year rolling average travel speed and 2025 targets (rolling average 2014-2019)



Data source: BECA

[10] Six strategic routes: Wellington Airport to Waikanae (SH1), Wellington CBD to Upper Hutt (SH2), SH58 Haywards road to Paremata, Bowen St to Karori, Wellington Railway Station to Island Bay, Petone to Wainuiomata.

Travel time predictability

Travel predictability (previously variability) is the second measure for this RLTP objective and is averaged over the six strategic routes. The measure indicates how well customers can predict their journeys based on typical historic performance.

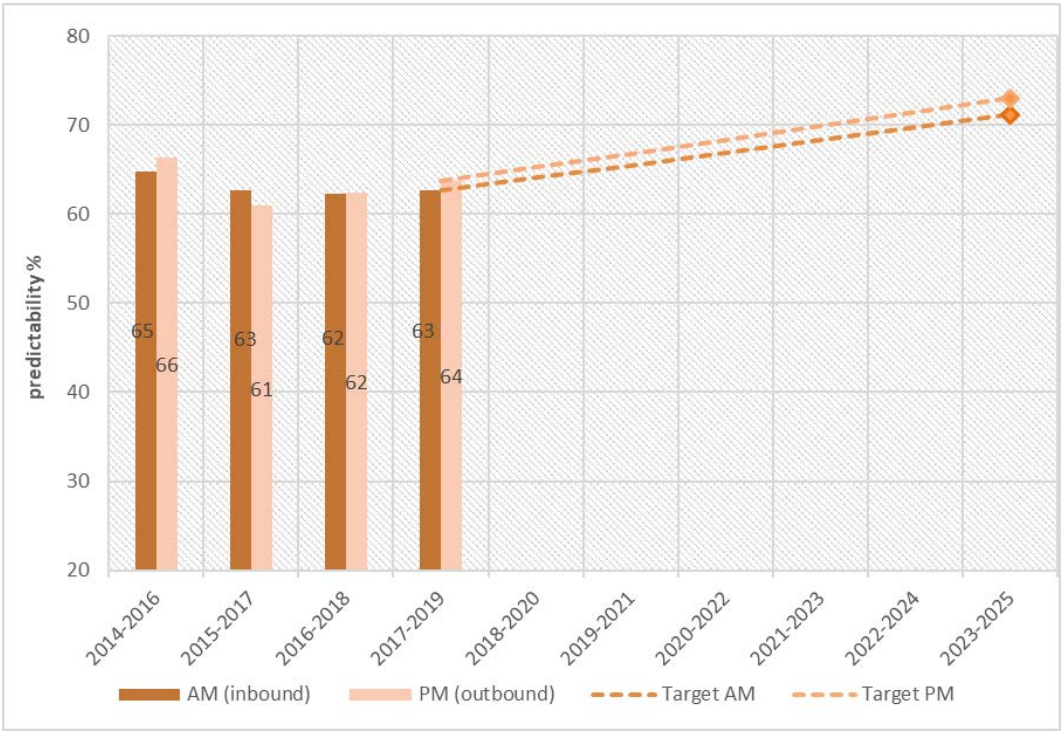
Predictability measures the travel times against the baseline to determine how consistent or reliable the travel time is for each route. The higher the predictability rating the more consistent the travel time is for the route.

To calculate predictability, a baseline target is created for each part of the road, for every 15 minutes of the day, and this baseline is compared against the targets every 15 minutes, every weekday. A high percentage represents a high level of consistency of customer experience. A low percentage means the customer will have difficultly estimating how long the journey will take.

Figure 10 shows the average peak travel time predictability. The results for 2019 show:

- 63% inbound (AM peak) and 64% outbound (PM peak).
- Predictability has decreased by 2-4 percentage points since 2016 for AM and PM times, a result of increased travel demand.
- Little change in predictability over the short term.

Figure 10: Predictability for strategic routes (2014-2019)



Data source: BECA

An effective network for the movement of freight

This section refers to the transport outcomes for the movement of freight, including improving freight efficiency and freight volumes.

	MEASURE + Short term trend
Rolling average all-day travel speeds on important regional freight routes	↔
Average peak travel time predictability on selected strategic routes	↑
Percentage of freight volumes moved by rail	↑

Improved freight efficiency

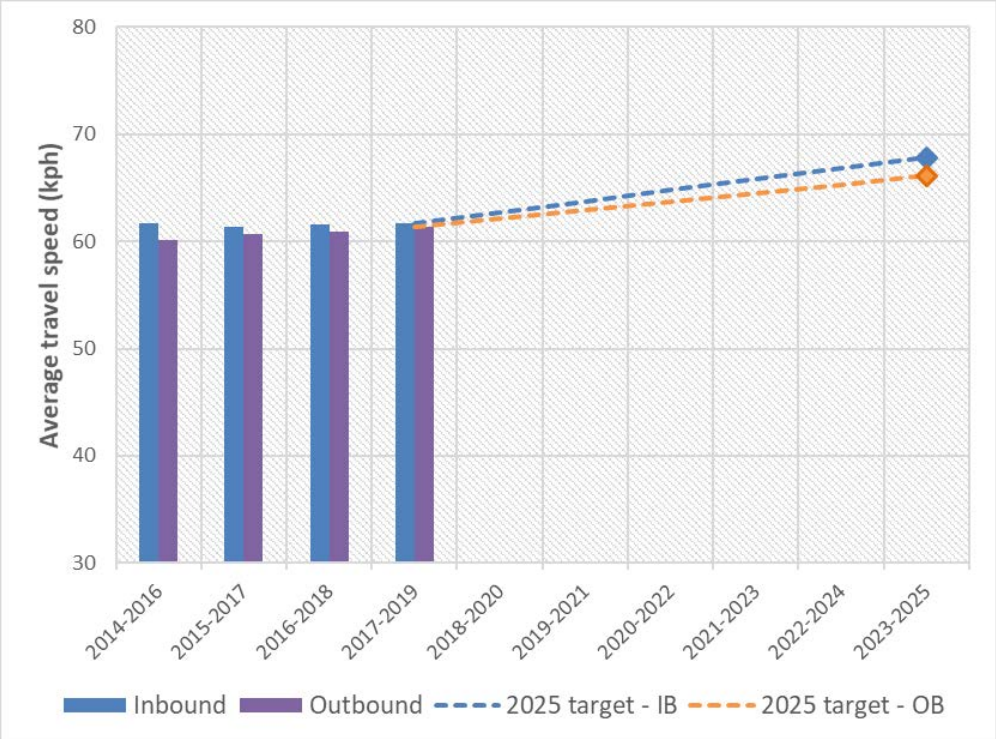
The region's freight network consists of roads, rail and port infrastructure. Road and rail are the two primary modes for freight in the region. Wellington is a key gateway for freight travelling between the north and south islands.

The three key freight routes[11] represent typical road freight movement across the region. The average all day travel speeds for freight transport provide a measure of efficiency for freight movement. The 2025 target is 67.8 km/hr (inbound) and 66.1 km/hr (outbound).

Figure 11 shows the three year rolling average travel speed over the three key freight routes. The 2019 results show:

- Inbound travel speed is 61.6 km/hr and
- Outbound travel speed is 60.9 km/hr averaged over the three key routes.
- Slight increase in outbound travel speed in the last four years.
- Little change in inbound travel speed over the four years.

Figure 11: Average travel speed on freight route & 2025 RLTP target (2014-2019)



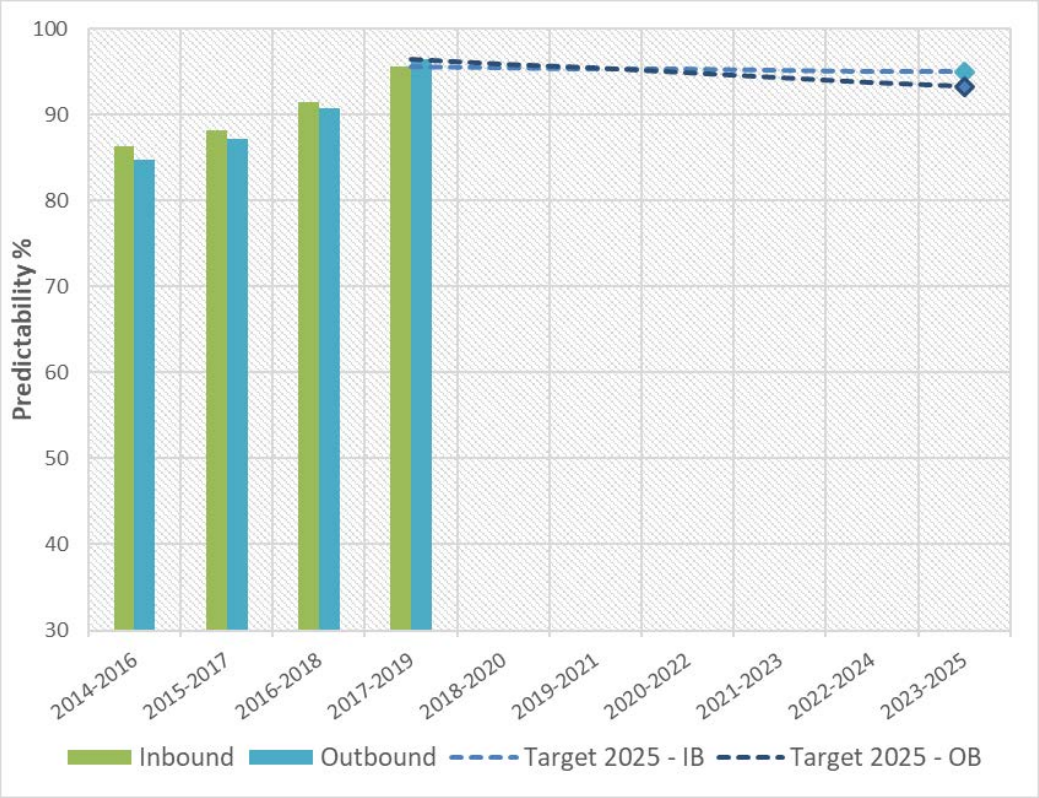
Data source: BECA

[11] Paremata to Seaview (via SH58), Paremata to Seaview (via Ngauranga gorge), Seaview to Centreport.

The second measure for improved freight efficiency monitors the predictability of the journey time for freight. Predictability measures the consistency of travel time by testing how predictable the journey time is against a baseline, over 15 min periods. Fluctuating travel times mean low predictability and vice versa (see page 17 for a definition of predictability).

Figure 12 shows the rolling average predictability rating from 2016-2019 and the RLTP target. In 2019, predictability for freight was 96% for both inbound and outbound travel. This is the third consecutive year that predictability has improved. The targets for 2025 are 95% & 93% for inbound and outbound predictability respectively, the current results exceed these targets.

Figure 12: Average all day freight travel speed predictability (2014-19)



Data source: BECA

Increased proportion of freight moved by rail

The original baseline for this indicator came from the National Freight Demand study (2012) by Ministry of Transport. Since this research occurs every five years we have used the Freight Information Gathering System (FIGS) data[12] for information on rail freight volumes in the intervening years. This year we are able to report on the latest National Freight demand study which covers 2017/18, and includes information on the type and volume of freight moving in and out of the region by rail, shipping, air and road.

The following is a summary of results on the freight volumes moved in and out of the region. Rail freight in 2012 compared to 2018 studies show (see **Table 2**):

- Total estimated freight by rail in 2012 was 0.88 million tonnes, 1.2 million tonnes in 2018
- Rail freight (tonnes) coming in and out of the region has increased by 36% from 2012 to 2018
- The proportion of rail freight compared to total freight has increased slightly (from 4.8% to 4.9%)
- At a national level the proportion of rail freight is 5.6% (estimated for tonnes)

[12] Freight data provided by Ministry of Transport, KiwiRail and Statistics NZ

TABLE 2: FREIGHT STUDY RESULTS (MILLIONS TONNES & %)

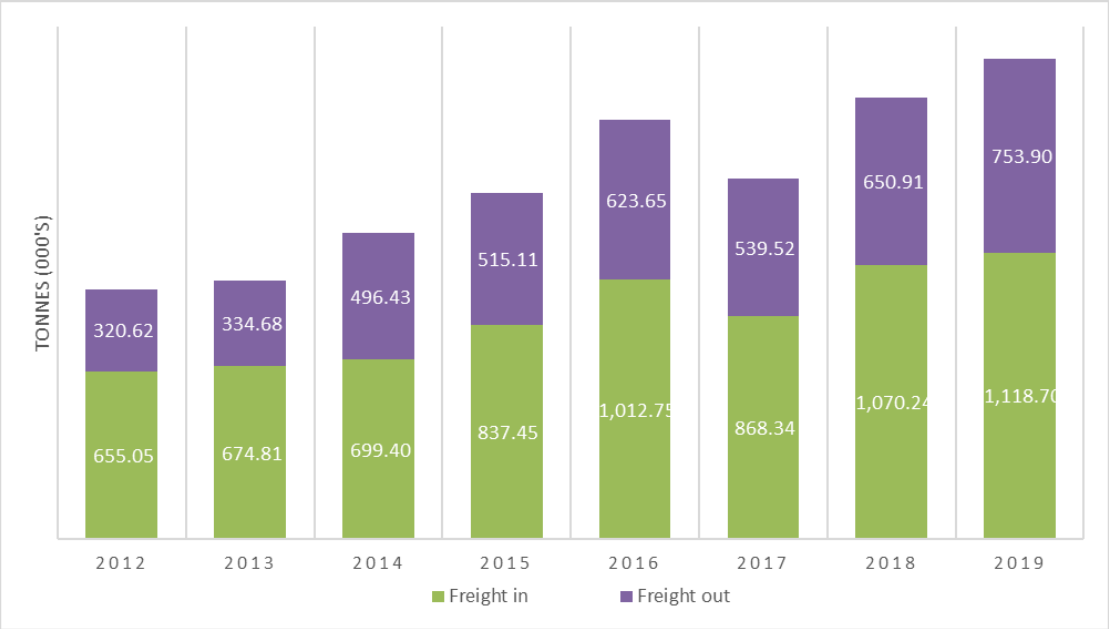
Year	Rail freight	Road freight	Shipping	Total freight	Rail %	Road %	Shipping%	Total
2012	0.88	16.99	0.47	18.33	4.8%	93%	3%	100%
2018	1.2	22.6	0.4	24.3	4.9%	93%	2%	100%

The FIGS data provides estimated volumes of rail freight movement nationwide. The movement of freight by rail (tonnes) inbound and outbound was almost 1.9 million tonnes in 2018/19 for the Wellington region, shown in **Figure 13**. A large proportion of this freight is wood and forestry products.

The RLTP seeks to improve the rail network to increase the movement of freight by rail. Rail is an effective mode of transport for high volume and heavy freight and carries approximately 15 percent of freight moved in New Zealand (when measured in tonne-kilometres).

Rail freight uses less energy than freight transported by road (at most 25% of the energy for road transport). The rail system also reduces the pressure on New Zealand's roads and can provide safety, health and environmental benefits.[13]

FIGURE 13: RAIL FREIGHT MOVING IN AND OUT OF REGION (THOUSANDS OF TONNES)



Data source: Ministry of Transport

Note: There are differences between the Freight study and FIGS freight estimates, due in part to the inclusion of inter-regional freight movements in the FIGS data.

[13] Ministry of Transport; https://www.transport.govt.nz/rail/

A safer system for all users of our regional road network

This section discusses the transport outcomes that are related to regional road safety which includes road crash fatalities and casualties.

	MEASURE + Five year trend
Deaths and serious injuries (DSI , CAS data)	↑
Total casualties on an annual basis against a 5-year rolling average (CAS data)	↑
The number of vulnerable road users (cyclists and pedestrians) killed and seriously injured (CAS data).	↑

Improved regional road safety

A system wide approach is used to address safety issues. Safer Journeys, the national strategy guiding road safety improvements, seeks to establish the safe system approach within New Zealand.

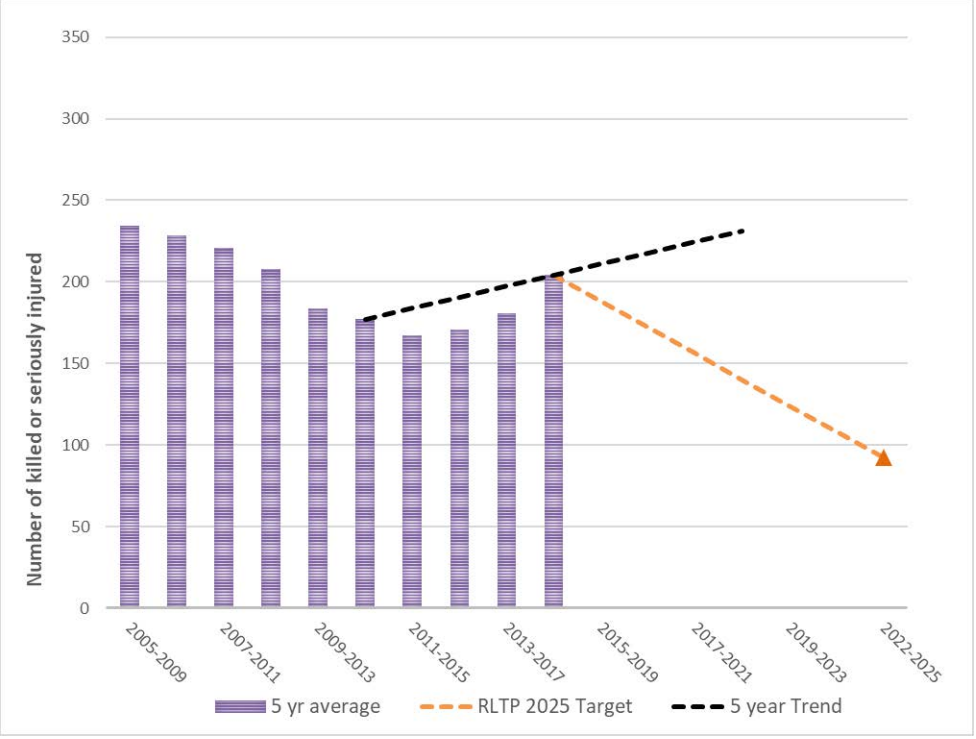
Figure 14 shows the number of fatal[14] and serious[15] injury casualties for all vehicle types in the Wellington region according to NZTA's Crash Analysis System (CAS). A five-year rolling average is used for this measure as it smooths out annual fluctuations and highlights long-term trends.

In 2018 the number of people seriously injured or killed on the region's roads (250) was above the five year (2014-2018) average (204) for the third year running. In 2018 there were 13 deaths and 237 serious injury casualties.

Figure 14 shows the five year rolling average trend-line moving upward, indicating that the previous downward trend for serious injuries has now reversed. Serious injuries have increased by 15% in the last five years.

At a national level, serious and fatal road casualties have followed a similar trend with a downward movement from 2005 to 2014 followed by an increase in the last four years (up by 25%). The main causes of serious road crashes are poor observation, failing to give way, speed, alcohol and poor handling.

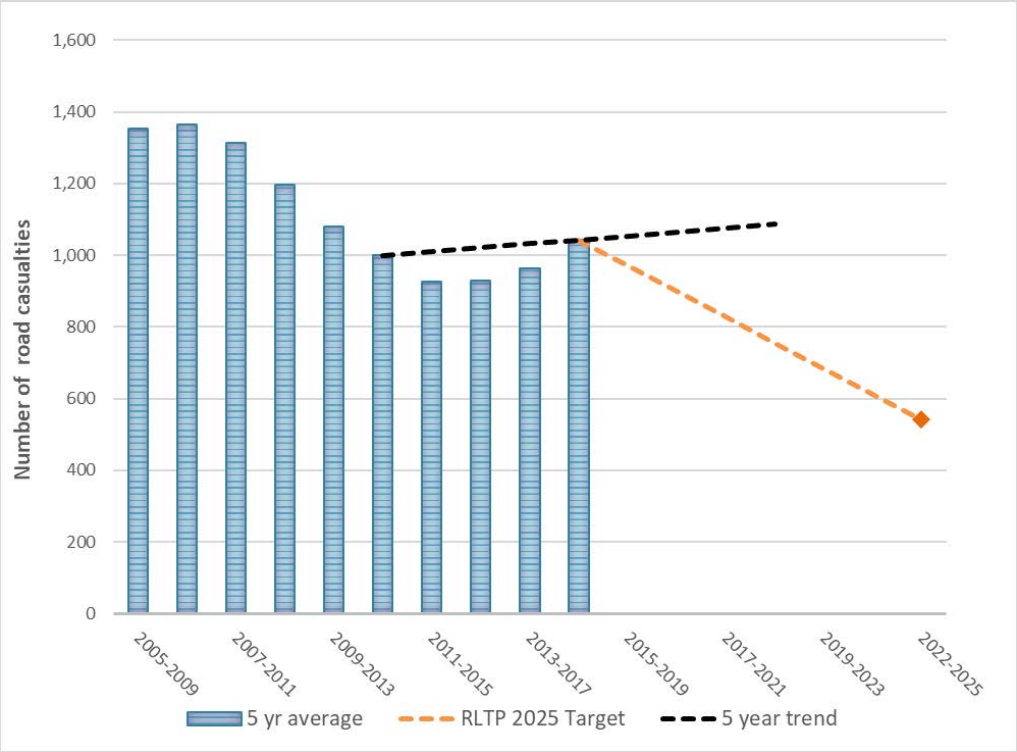
Figure 14: People killed or seriously injured on region's roads (2005-2018). CAS data, NZTA



[14] Injuries that result in death within 30 days of a crash

[15] Serious is defined as fractures, concussion, internal injuries, severe cuts and lacerations, severe shock requiring medical treatment, and any injury involving admittance to hospital.

Figure 15: Total casualties on the region's roads (5 year rolling average 2005-2018)



Data source: CAS, NZTA

Figure 15 shows the total road casualties for the region to 2018 and RLTP targets to 2025. The total casualties for 2018 were 1,290 and the five year rolling average (2014-18) was 1042 casualties. The five year trend-line has changed from neutral to a slight upward trend. As this upward trend has been influenced by increased casualties over the last 2 to 3 years, unless casualties significantly reduce in the next couple of years it will be a number of years before the 5 year rolling average stabilises or starts to decrease.

Increased safety for pedestrians and cyclists (vulnerable road users)

This measure assesses the safety of the road network for pedestrians and cyclists by examining CAS data over time. A five year rolling average is applied to the data to even out fluctuations in the annual results.

Figure 16 shows the number of pedestrians and cyclists killed or seriously injured on the region's roads. In 2018 CAS data showed:

- The number killed or seriously injured in 2018 was 67 (including 1 fatality), this result was above the five year rolling average of 56 for years 2014-18.
- There were 30 seriously injured cyclists and 36 seriously injured and 1 fatally injured pedestrian during 2018 in the Wellington region.
- Serious injuries increased by 15% compared to the previous year.

The rolling average trend-line (dotted black line) shows an upward trend (away from the target) due to a sharp increase in casualties in the last three years.

Figure 16 Cyclists & pedestrians seriously injured on the regions roads (2005-2018)

Data source: CAS, NZTA

Local authorities and NZTA are investing heavily in cycling and pedestrian infrastructure which is focused on targeting casualty blackspots and providing a cycling network.

The 2025 RLTP target is at least a 50% reduction in the baseline, for vulnerable road user casualties on the region's road network.

An increasingly resilient transport network

This section discusses outcomes concerned with the resilience of the transport network, including the regional risk register, restoration and recovery timeline for the network and regional emergency plan.

	MEASURE + 5 year trend
Proportion of region covered by an adopted regional risk register	✓
Estimated time to reopen key road connections to and within the region and to key recovery facilities.	↓
Proportion of region covered by an adopted and comprehensive regional restoration and emergency plan	↑

A transport network that supports the restoration of access and regional recovery after a major event

A resilient network is one that is designed, developed and maintained to recover quickly from unplanned events. The region's road network is vulnerable to disruption or closure given an extreme event. This is because Wellington's topography and relatively narrow corridors of development, infrastructure and transport across the region make it relatively susceptible to disruption from natural hazards events and traffic crashes.

A regional risk register allows resiliency to be better prioritised and represented in the RLTP programme in the future. The regional risk register was a joint project with NZTA and GWRC and was completed at the end of 2016.

The second resilience measure addresses the importance of access to key routes and infrastructure after an event. The Wellington Lifelines group restoration plans include the estimated time to reopen key supply lines and road connections to and within the region[16]. Improvements to the regional network to improve resilience, will reduce the number of days to restore key recovery facilities.

Since the Kaikōura earthquake in 2016, Lifeline group members have started a number of significant regional projects to increase the region's level of resilience. Examples include:

- Wellington Water's Community Infrastructure Resilience Project, which is providing an above-ground emergency water supply network, multimillion-dollar storm water upgrades and a new Prince of Wales/Omāroro Reservoir (35 million litres);
- Wellington Electricity's Earthquake Readiness Programme to reduce the risk and improve earthquake readiness across their network;
- The Unreinforced Masonry Project to secure unreinforced masonry on buildings in the Wellington CBD.

The third resilience measure is about the adoption of a comprehensive regional emergency plan. The Wellington Region Civil Defence Emergency Management Group (the CDEM Group) is made up of various agencies who work together to provide civil defence and emergency management to the region. A regional emergency plan incorporates response, reduction, recovery, and readiness

Examples of progress toward this measure (from the group) in the last year include the following:

- Group plan 2019-2024 was released and Wellington Region Earthquake plan (WREP) finalised.
- Development and implementation of the Community Response Plan process, where local communities get to plan for their response to an emergency.
- Development and implementation of the Community Emergency Hub concept. Communities have run exercises to test their Hub activations to see how they can respond to an emergency.
- Group Resilience Framework for the region.
- Development of the Natural Hazards Management Strategy for the region.
- Regional CDEM Training strategy – i.e. to manage the training of EOC and ECC staff.

[16] Wellington Lifelines Group/WREMO: Restoring Wellington transport links after a major earthquake-Initial project report, 2013

A well planned, connected and integrated transport network

This section discusses transport outcomes that are concerned with an integrated network, including improving land use and transport integration.

	MEASURE + five year trend
Population living within 500m of any bus stop or 1km of a railway station (short term trend)	
Number of secure cycle parking spaces at railway stations	↑

Improved land use and transport

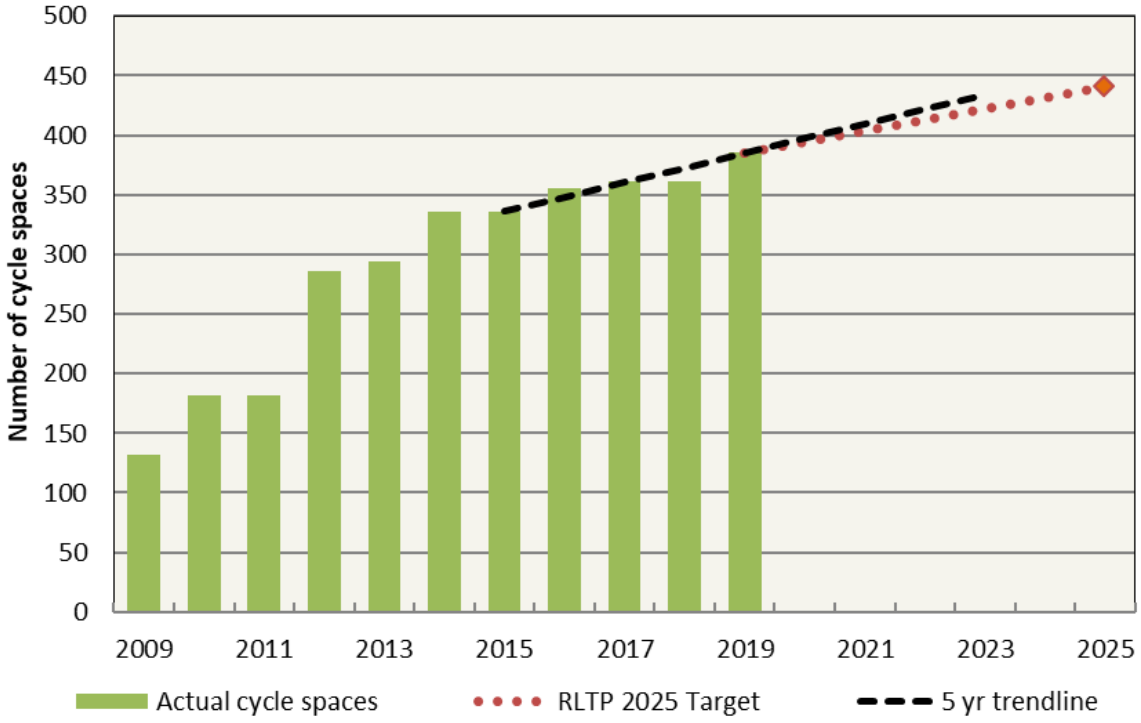
Ensuring the residents have good access to public transport services is a desirable outcome for the region. This means that people have choices about how they travel. There are economic and health benefits to investing in public transport i.e. increasing public transport patronage reduces congestion on the roads, is more energy efficient than single car use and is beneficial to the environment by reducing emissions and contributes to active travel use. The population data from the 2018 census will be used to update this measure for the 2020 AMR.

Improved integration between transport modes

The provision of cycle facilities at railway stations consists of a mix of secure cycle racks, cages, and lockers. The cycle facilities encourage commuters to cycle from home to the station instead of driving.

Figure 17 shows the 5 year trend and targets for cycle parking facilities at railway stations. In 2019 A new cycle parking rack was installed at Paraparaumu train station with capacity for 24 bikes. This is a three sided shelter to provide a safe and secure storage area. Overall there are 385 cycle spaces at railway stations around the region. The trend line for cycle storage shows an upward trend tracking toward the target.

Figure 17: The number of cycle parking spaces at railway stations and RLTP target (2009-2019)



Data source: GWRC

An attractive and safe walking and cycling network

This section discusses transport outcomes that promote active mode use; focusing on trips made by cyclists and pedestrians to work and study as well as cyclist/pedestrian level of service (LoS).

	MEASURE + five year trend
Proportion of urban trips by walking	↔
Proportion of urban trips by bike	↔
Perception of level of service for cyclists and pedestrians	↔

Note: Indicators based on the census are not included in the table because there is no recent data.

Increased mode share for pedestrians and cyclists

From a transport network perspective, walking and cycling are the most efficient mode choice particularly for short trips. Walking and cycling integrate well with other modes such as bus and rail and are essential for connecting modes for trips.

The Census journey to work data is summarised for the RLTP as mode share[17] which includes walking and cycling. Walking mode share for the region was 11.6% in 2013 up from 9.8% in 2001. Cycling mode share was 2.9% in 2013 up from 2.3% in 2001. The 2018 census results will be included in the 2019/20 AMR.

The Wellington City CBD cordon survey is undertaken annually in March and captures all trips by pedestrians, cyclists, public transport, and motor vehicles that cross a notional cordon around Wellington City CBD. This dataset can be used to determine changes in travel patterns, mode share and patronage through time.

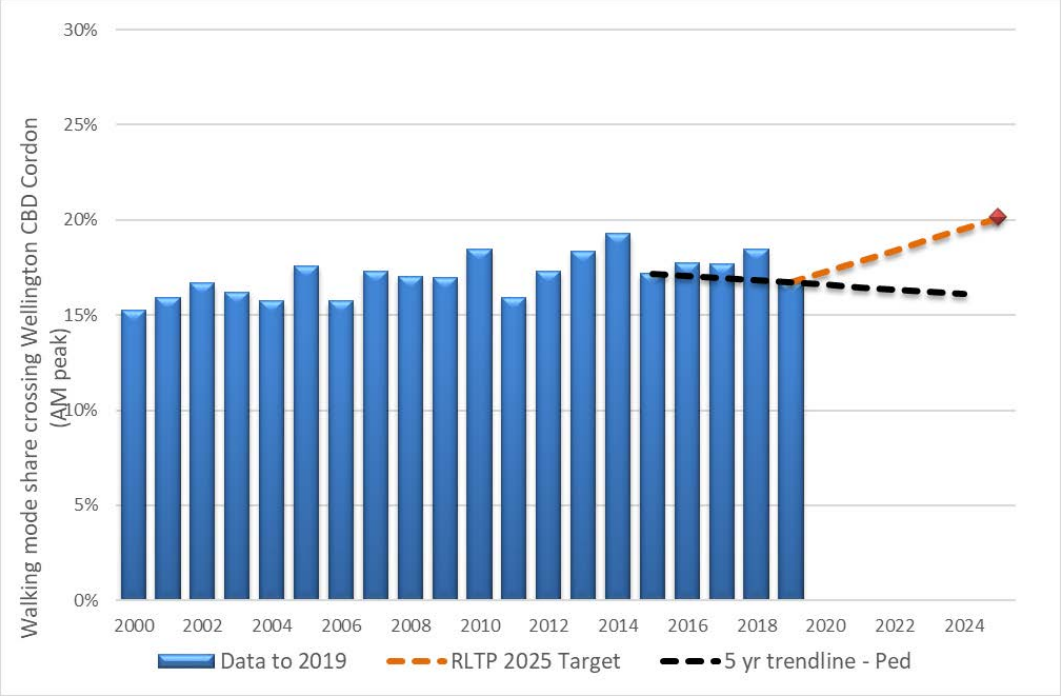
Figure 18 shows the mode share for pedestrians in the cordon count morning peak. Survey results for pedestrians crossing the cordon show the following:

- Mode share has fluctuated from 16% to 19% since 2001
- The five year trend indicates a slight decrease in pedestrian mode share.
- In 2019, 16.7% of those people crossing the cordon were walking.
- The 2025 RLTP target is 20.1% mode share for pedestrians.

The cordon count survey is taken over one week in March; some of the annual variability can be attributed to the short time frame of the survey which can be influenced by weather conditions.

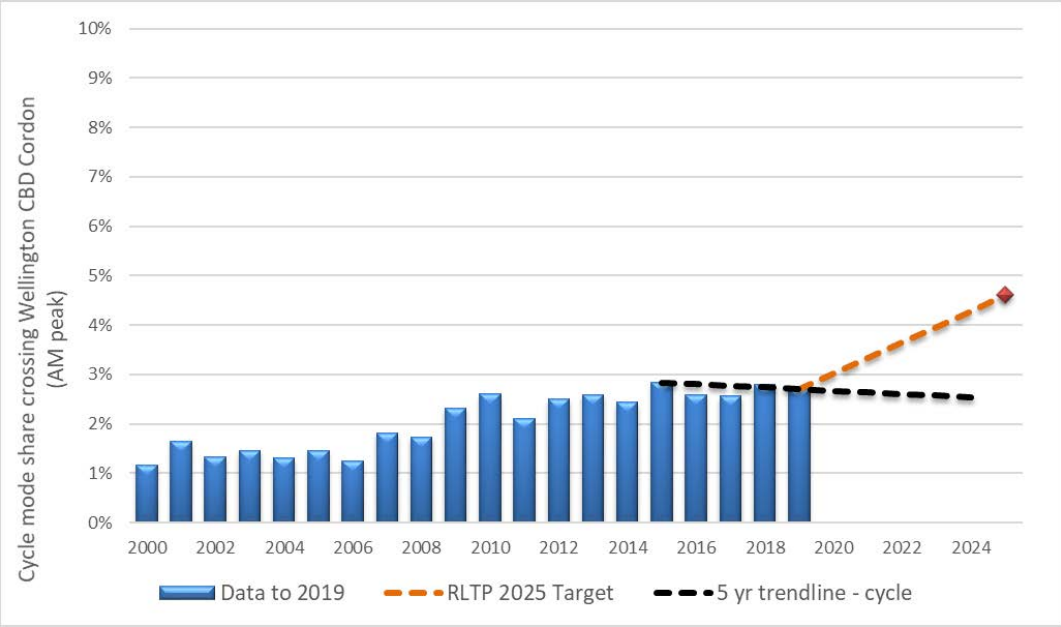
[17] Mode share is the proportion of trips to work completed by a specific mode, modes are typically motor vehicle, bus, rail, cycle, walk, motorcycle.

Figure 18: Mode share for Pedestrian crossing the CBD cordon (2000-2019)



Data source: Wellington CBD cordon survey, WCC

Figure 19: Mode share for cyclist crossing the cordon (2000-2019)



Data source: Wellington CBD Cordon survey

Figure 19 shows mode share for cyclists crossing the cordon. The 2019 cordon survey results reveal the following:

- The average number of cyclists has increased by 18% in the last ten years, (an additional 366 cyclists).
- The number of cyclists have increased along with increases in other modes, therefore modeshare is static
- Mode share for cyclists is 2.7% for 2019.
- The five year trend for cordon modeshare is a neutral trend line.
- The 2025 RLTP target for this measure is 4.6% of trips crossing the cordon are cyclists.

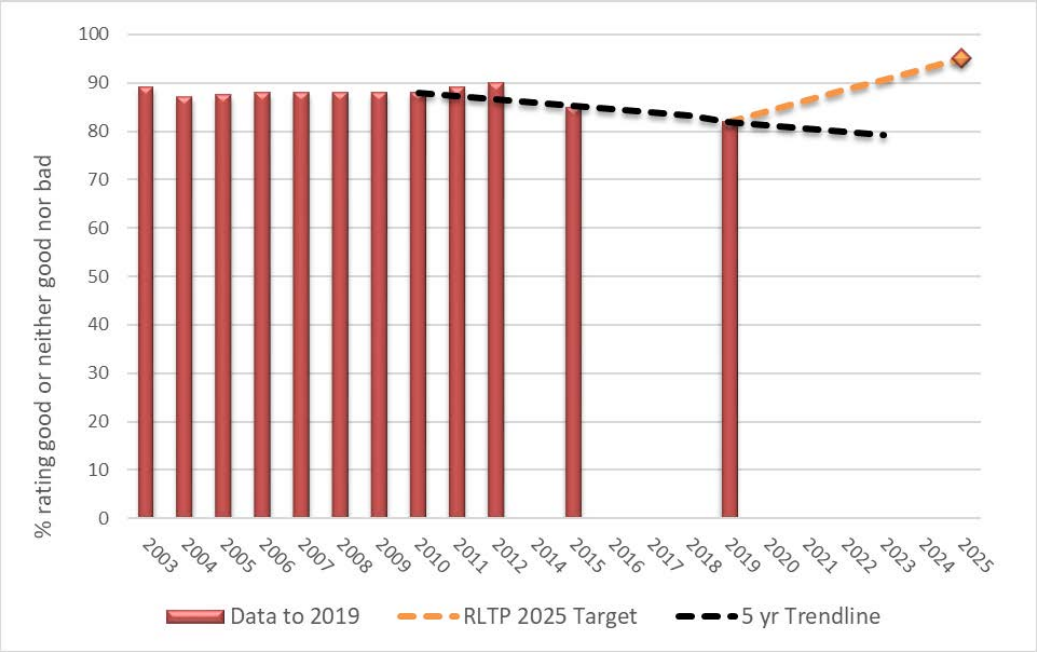
Improved level of service for pedestrians and cyclists

The levels of service for the walking and cycling networks are drawn from the GWRC Transport Perceptions Survey (TPS) through the following response: 'the proportion of respondents that rated the level of service for pedestrians and cyclists as good or neither good nor bad'. The survey was run in 2019 after a gap of four years.

Figure 20 shows the percentage of respondents who rated the level of service for pedestrians as good or neither good or bad was 82% in 2019, this is a high rating but 3 points below the 2015 result of 85%. The five year trend line shows a decline in perceived level of service due to a drop in the rating for the last two years. Upper Hutt respondents rated pedestrian service higher than other TAs at 89% and Porirua's had the lowest at 76%.

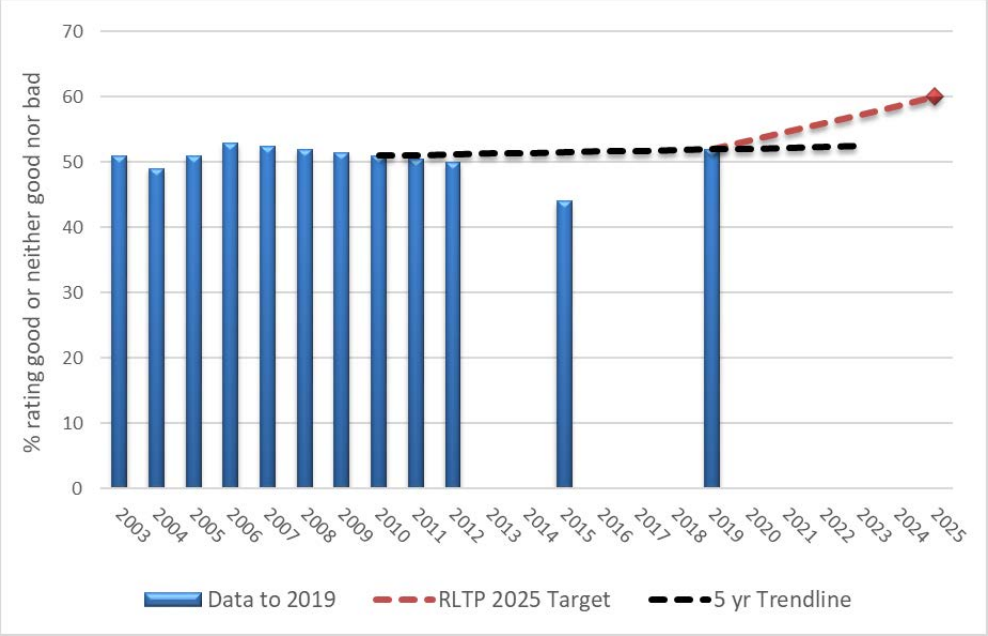
In the same survey, people were asked to rate the level of service for cyclists. Those that rated the service as either good or neither good nor bad has increased, at 52% this is a significant improvement from 2015 over the short term. **Figure** 21 shows level of service for cyclists, the trend line shows a slight upward movement as perception of service increases from 2010 to 2019.

FIGURE 20: LEVEL OF SERVICE FOR PEDESTRIANS



Data source: GWRC

FIGURE 21: LEVEL OF SERVICE FOR CYCLISTS



Data source: GWRC

Increased use of active modes for journeys to school

The School Travel Plan (STP) programme within the Wellington region began in 2006. It is a joint partnership between GWRC, local councils and the schools. The aim is to increase the number of journeys to school made by active modes. The latest survey data available for STP is 2014.

In 2014, 74 schools (with 22,000 children) were included in the STP programme. Across the region, participation rates for school children varied from Kapiti (80% of children participated in the programme) to Upper Hutt (32%) and Porirua (9%). Across the region, approximately 25% of school children participated in the programme (2014).

Currently under development is *The Track our Travel online tool.* This tool replaces the paper classroom surveys that were part of the Wellington Region STP Programme.

Collaboration continues with NZ Transport Agency, Ministry of Education, and the Office of the Privacy Commission to develop a robust approach to capture school travel data across all modes.

An efficient and optimised transport system that minimises the impact on the environment

This section discusses transport outcomes connected to environmental impacts specifically transport generated emissions and vehicle occupancy.

	MEASURE + Five year trend
Transport generated emissions (per capita)	↑
Transport generated emissions (absolute)	↑
Concentrations of harmful transport-generated pollutants	↓
Peak period private vehicle occupancy	↔

Reduced harmful emissions from transport

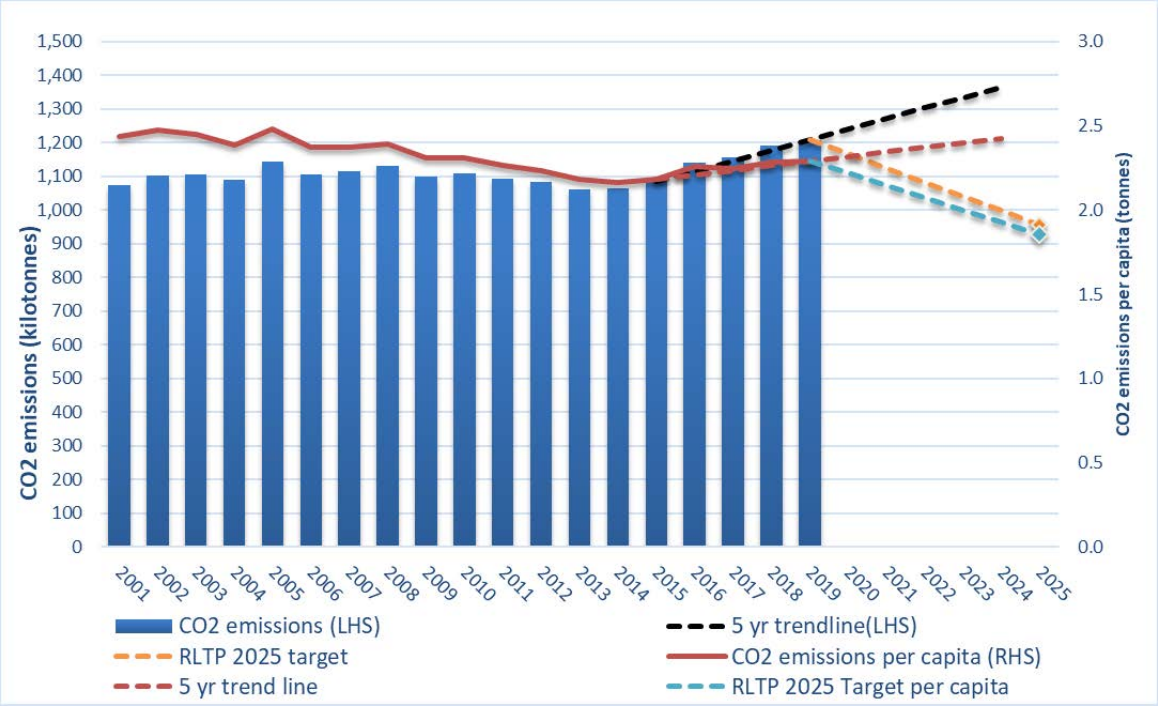
Carbon dioxide (CO_2) accounts for the bulk of transport-generated emissions and is therefore a suitable proxy for total transport-generated greenhouse gas emissions. This measure has been calculated from fuel consumption information[18]. The RLTP target is for a 15% reduction in annual per capita CO_2 emissions by 2025.

This measure provides an indication of whether the transport system is becoming more efficient, in relation to emissions, by producing less emissions on a per person basis.
Figure 22 represents both measures associated with transport generated CO_2 emissions. These are CO_2 kilotonnes (LHS) and CO_2 emissions per capita (RHS). Recent and current results for this measure show:

- CO_2 kilotonnes (shown as blue bars below) have increased by 11.9% in the last five years.
- Due mainly to increases in diesel consumption, a result of a growing economy generating a significant increase in freight trips[19]
- Diesel sales rose by 28% and petrol sales by 1.0% over the last five years.
- In 2019, CO_2 emissions were 1,191 kilotonnes and 2.28 tonnes per capita.

Both the CO_2 emissions per capita trend-line (red dotted line) and total emissions (black line) show an upward trend as fuel sales increase, a result of increased travel driven by a growing population and economy.

Figure 22: Transport generated CO_2 emissions per capita and total emissions (2000-2019)



Data source: GWRC

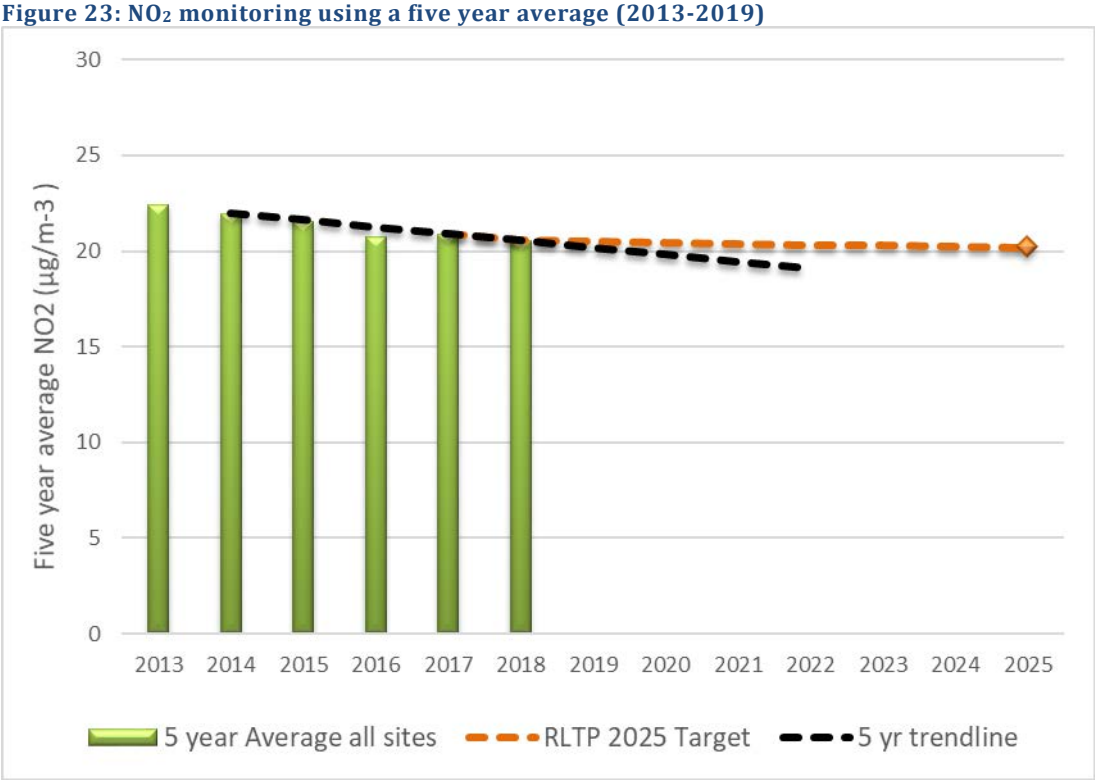
[18] Carbon dioxide emission levels have been calculated using production rates from the Ministry of Economic development greenhouse gas emissions report (2010). The factors are 2.33 Kg/L of CO2 per litre of petrol and 2.65 kg/L for diesel.
[19] Diesel fuel is also used for many non-transport uses in the economy e.g. agricultural, mining, fishing, industrial and electricity generation.

Regional monitoring network

The current measure for concentrations of harmful transport-generated pollutants is based on levels of nitrogen dioxide (NO_2), a harmful pollutant arising from vehicle emissions. The data currently used to track trends in traffic-related air pollutants is from NZTA's national NO2 monitoring network and is collected by passive samplers[20] at multiple sites across the region (except the Wairarapa). The NZTA sites are mostly along the state highways, but include a small number of local roads.

Figure 23 shows the results from NO_2 monitoring sites, the level is calculated using a five year moving average. From 2013 to 2019 there has been a downward trend in the level of nitrogen dioxide; overall there has been a 7% reduction in NO_2 during this time.

Figure 23: NO_2 monitoring using a five year average (2013-2019)



Data source: NZTA

One of the aims of this RLTP objective is to improve the long term reporting and monitoring framework to inform a regional indicator of trends in traffic-related air pollutants which can be linked to trends in traffic intensity and changes in the vehicle fleet.

As trends in traffic emissions and impacts on air quality are likely to differ quite strongly across the region, this requires monitoring at a number of representative "peak", "roadside" and "urban background" sites. To address this information gap, a more regionally representative NO_2 passive nitrogen dioxide monitoring network has now been established for future RLTP reporting.

Over time and as resources permit, other traffic-related air pollution indicators, such as black carbon, and particle monitoring will be added to key sites in the network.

[20] NZTA Ambient Air Quality (Nitrogen Dioxide) Monitoring Programme – Operating Manual 2013/14: Passive sampling techniques are 'screening' methods and are useful for spatial and temporal assessments. Pg. 24.

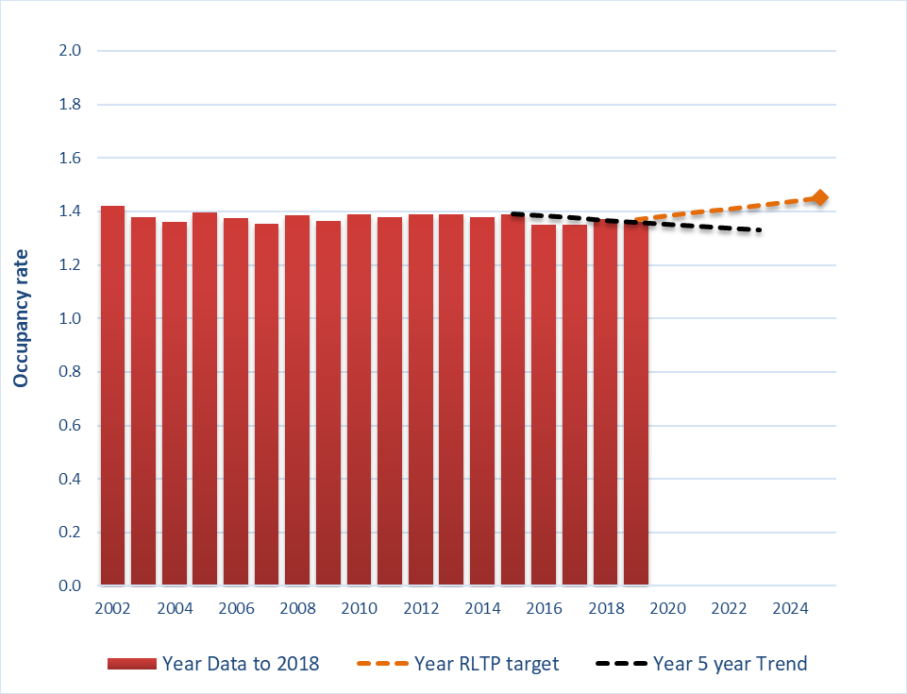
Increased private vehicle occupancy

Multiple occupancy vehicle trips (including buses) contribute to the efficient usage of the region's roads, as they raise the average number of people per vehicle, which in turn reduces the number of vehicles on the road. Given that capacity on the road network is limited, increasing average vehicle occupancy levels is a means of transporting more people, more efficiently across the network.

The Wellington City Council cordon survey measures vehicle occupancy crossing the Wellington City CBD between 7am and 9am (PT vehicles are not included). This survey data is used as a basis for developing future vehicle occupancy targets.

Figure 24 shows vehicle occupancy has fluctuated from 1.35 to 1.42 since 2002. In 2019, vehicle occupancy was 1.36. The 2025 RLTP target is to increase the occupancy rate to 1.45 people per vehicle. Due to the small change from year to year the five year trend line is neutral.

Figure 24: Private vehicle occupancy rate (2002-2019)



Data source: Wellington CBD Cordon survey

RLTP implementation

The RLTP implementation for 2015-2025 consists of the projects and activities that make up the Regional Programme. The progress of the RLTP implementation will be reported on to the Regional Transport Committee every 6 months by a separate reporting mechanism: the RLTP Progress Report.

The purpose of the half yearly progress report is to update the Committee on the status and progress of significant projects and programmes of regional interest in the Regional Land Transport Plan 2015.

The RLTP 6 monthly progress reports can be found on the GWRC website under Regional Transport Committee (RTC) meeting documents.

The first progress report for 2018/19 on projects in the RLTP (July to December 2018), RTC meeting April 2019 publication ref: 19.61

March RLTP Progress report.pdf

The second progress report for 2018/19 on the RLTP projects (January to June 2019), RTC meeting September 2019 publication ref: 19.371

August RLTP Progress report.pdf

Table 3: RLTP 2015 Strategic objectives & outcomes

	Strategic Objectives	Outcomes
Chapter 2	**A high quality, reliable public transport network**	Increased public transport use
		Improved public transport accessibility for all
		Improved quality of public transport
		Improved PT reliability and journey times
Chapter 3	**A reliable and effective strategic road network**	Reduced severe road congestion
		Improved reliability of the strategic road network
Chapter 4	**An effective network for the movement of freight**	Improved freight efficiency
		Increased proportion of freight moved by rail
Chapter 5	**A safer system for all users of our regional road network**	Improved regional road safety
		Increased safety for pedestrians and cyclists
Chapter 6	**An increasingly resilient transport network**	Improved transport infrastructure resilience to disruption from unplanned events
		A transport network that supports the restoration of access and regional recovery after a major event
		Reduced regional economic risk
Chapter 7	**A well planned, connected and integrated transport network**	Improved land use and transport integration
		Improved integration between transport modes
Chapter 8	**An attractive and safe walking and cycling network**	Increased mode share for pedestrians and cyclists
		Improved level of service for pedestrians and cyclists
		Increased use of active modes for journey to school
Chapter 9	**An efficient and optimised transport system that minimises the impact on the environment'**	Reduced harmful emissions from transport
		Increased private vehicle occupancy

Glossary

AM	Morning peak period
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	Carbon monoxide
CO_2	Carbon dioxide
FAR	Funding Assistance Rates
GPS	Government Policy Statement
GWRC	Greater Wellington Regional Council
IP	Inter Peak
Km	Kilometres
Km/hr	Kilometres per hour
Mins	Minutes
NITIS	National Integrated Ticketing Interoperability Standard
NLTP	National Land Transport Programme
NZTA	NZ Transport Agency
PM	Afternoon peak period
Police	New Zealand Police
RHS	Right hand side
RoNS	Roads of National Significance
RLTP	Regional Land Transport Plan
RTC	Regional Transport Committee
SH	State highway
TMIF	Transport Monitoring Indicator Framework
VKT	Vehicle kilometres travelled

For more information contact the
Greater Wellington Regional Council:

Wellington office
PO Box 11646
Manners Street
Wellington 6142

04 384 5708

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Regional Council

info@gw.govt.nz
www.gw.govt.nz

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