

Chapter 9 Expected Results

9.1 INTRODUCTION

This chapter describes the results expected from implementing the preferred strategic option identified in Chapter 6 and the supporting policies outlined in Chapter 7.

For each of the desired outcomes described in Chapter 4, the expected level of performance by 2016 (the horizon year for this RLTS) is specified for three options – the preferred strategic option, the Do Minimum option and an option that includes high levels of roading, public transport and travel demand management.

When considering these expected results, it is important to take into account that the results are not targets or projects specific performance measures. It is anticipated that the implementing agencies (ARTA, Transit NZ and the Territorial Authorities) will develop specific operational and project performance measures for their implementation plans which reflect the objectives of the RLTS and these expected results.

The main tools for determining expected results are the regional transport models. These evaluated the performance of the strategic options against the Regional Land Transport Strategy's objectives. Where no quantitative measures were available, expected results are expressed in qualitative terms.

In some cases, the expected level of performance in 2016 falls short of the desired outcome, particularly so for environmental performance. This is due to the constraints within which the strategy has been prepared and the anticipated growth facing the region, including:

- The need to work within the expected level of land transport funding available
- The decision not to incorporate road pricing options while these were subject to a separate study by the government and until appropriate evaluation has taken place
- Elements beyond the control of the strategy including fuel quality and engine efficiency
- Significant regional growth – by 2016 the region will have grown by an additional 340,000 people, putting another 195,000 cars on the region's roads.

On the other hand, expected levels of performance are significantly higher than would be achieved by a Do Minimum option of completing only the roading and public transport projects that are now committed.

Appendix C shows the relationship between the strategy's outcomes, objectives, evaluation criteria, policies, expected results and monitoring.



9.2 EXPECTED PERFORMANCE AGAINST OBJECTIVES

Objective 1: Assisting economic development

The preferred strategic option will assist economic development by:

- Significantly increasing the average number of households within 30 minutes travel of employment opportunities
- Allowing more people and goods to travel to and between key economic and knowledge centres at reasonable speeds

- Ensuring the construction of a number of important new roading links as well as capacity improvements on existing links
- Attracting significant numbers of people to public transport and active modes (walking and cycling), thereby freeing congested road space for commercially important trips.

The expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
Effective, efficient and integrated transport links to key business recreation and education locations in the region to allow all people in the region to participate fully in the community and economy	Despite traffic volumes increasing by 22% over current levels, on average 65,000 more households are expected to be within 30 minutes travel by car from employment opportunities and 37,000 more households within 30 minutes travel from employment opportunities by public transport (see Figure 9.1).

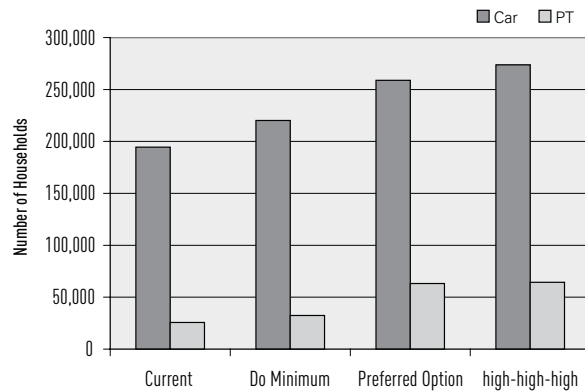


Figure 9.1: Average number of households within 30 minutes travel time of employment opportunities (morning Peak)



Desired Outcome

Effective and efficient transport links between the key business areas of the region for the movements of goods and services without unnecessary delays.

Expected Results by 2016

Despite traffic volumes between key business centres increasing by 45%, interpeak travel speeds are expected to decrease by only 5.6% (see Figure 9.2).

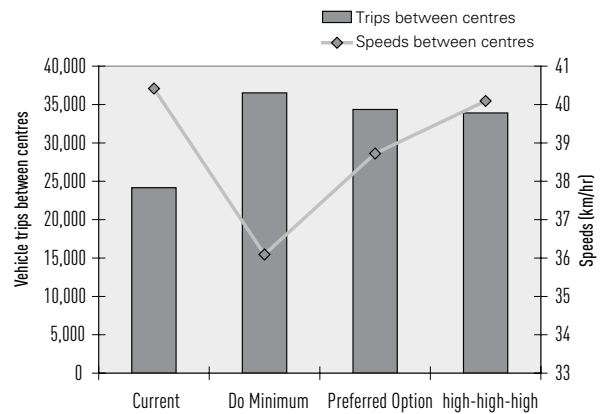


Figure 9.2: Number of vehicle trips and average speeds between centres (morning peak)

Desired Outcome

Effective links to key import and export points. For the Ports of Auckland this means effective road and rail links. For Auckland International Airport this means both effective road links and effective public transport links.

Expected Results by 2016

Average speeds for travel to the port in the morning peak are expected to decrease by 9%; and 8% for the airport (see Figure 9.3).

Travel times by public transport between the CBD and the airport are expected to decrease by 33% (see Figure 9.4).

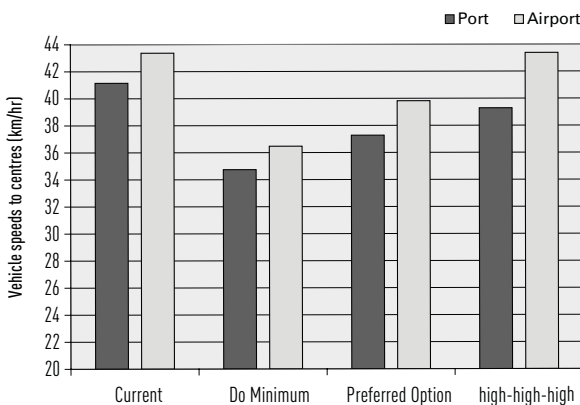


Figure 9.3: Average vehicle speeds to the Port and Airport (morning peak)

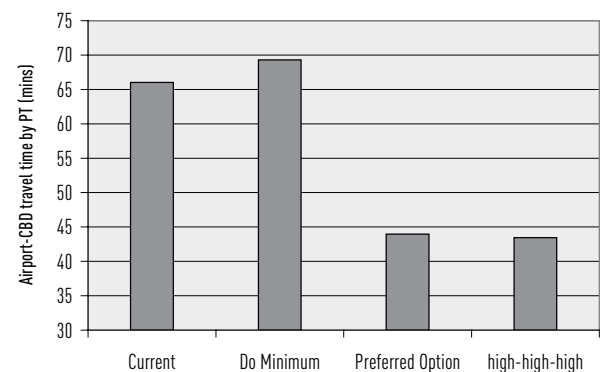


Figure 9.4: Travel times from the CBD to the Airport by Public Transport (morning peak)



Desired Outcome	Expected Results by 2016
<p>A transport system that will help to provide a platform for tourist promotion of the Auckland region.</p>	<p>Visitors to the Auckland region are expected to have excellent information on the availability of different modes of transport that can be used to access all major tourist destinations and will be able to get to their preferred destination without undue delay.</p>
<p>Travel times are predictable enough to enable effective travel planning.</p>	<p>The variation in travel speeds on motorways and major arterial roads will be less than current levels. The reliability of public transport services will be higher than current levels.</p>
<p>The transport system is resilient enough to deal with both foreseen and unforeseen events that would affect it.</p>	<p>People will be able to more easily change their travel plans during times of unforeseen disruption to the transport network due to significantly increased:</p> <ul style="list-style-type: none"> • Choice of travel options, particularly public transport and active modes • Real time Information about travel conditions.



Objective 2: Assisting safety and personal security

The preferred strategic option will help to provide a transport system that is safer and feels safe by:

- Including \$510m specifically for safety improvements
- Allowing Crime Prevention Through Environmental Design (CPTED) measures to be

built into upgrades to the public transport system and of the places where people are likely to walk, cycle or use public transport

- Increasing the number of people who walk and cycle, but improving their safety through significant investment.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
An established road safety culture among all transport users, who obey transport regulations.	Auckland driver attitudes towards drink driving, speed and general traffic enforcement are expected to improve over current levels.
A safe and secure environment for vulnerable users of the transport system.	Crashes, deaths and injuries involving pedestrians and cyclists are expected to decrease.
Public transport that is safe to ride without personal threat, both on the vehicle and in the surrounds of the stop or terminal, at all times.	User perceptions of the safety of getting to from and using public transport are expected to improve over current levels .
Significantly reduce crash deaths and injuries in the region.	Regional road injury crashes per 10,000 people are expected to decline by 6% (see Figure 9.5).

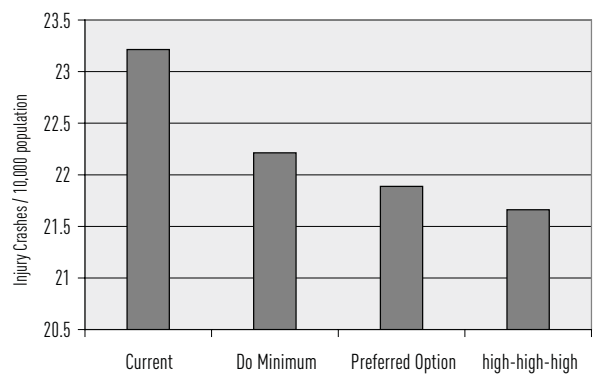


Figure 9.5: Annual Injury Crashes / 10,000 Population



Objective 3: Improving access and mobility

The preferred strategic option will help to provide a transport system that offers higher levels of access and mobility by:

- Improving the connectivity of the walking and cycling networks, thereby increasing the attractiveness of walking and cycling as transport modes. This is achieved by providing essential connections for those who depend on them and between those modes and public transport

- Increasing the opportunities to work, shop, attend schools and access health care within 30 minutes travel of households by all modes
- Significantly increasing the accessibility provided by the public transport to those living in areas with the highest levels of deprivation
- Providing better opportunities for the disabled to walk, cycle and use public transport.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome

A high level of travel choice to all key destinations including employment areas, retail centres, tertiary institutions and major health facilities.

Expected Results by 2016

The average number of opportunities within 30 minutes travel of households in the peak period are expected to increase by:

Type of Opportunity	% Increase in access to opportunities within 30 minutes travel by:	
	Vehicle	Public Transport
Employment*	31 %	131%
Retail	30%	130%
Education	29%	76%
Health	34%	154%

* See Figure 9.6

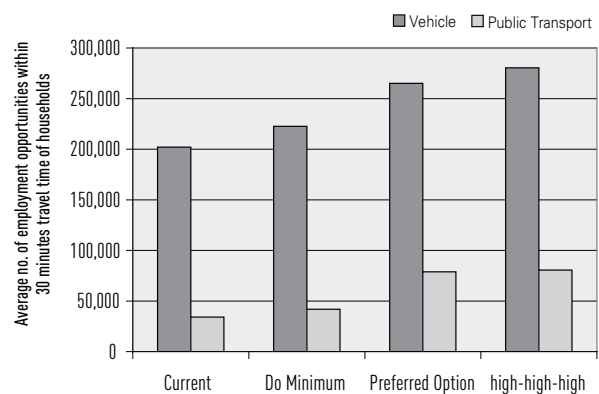


Figure 9.6: Number of employment opportunities within 30 minutes travel time of households by vehicle and public transport (morning peak)



Desired Outcome

Expected Results by 2016

A high level of integration between all transport modes within the transport system.

People will have a far greater choice of travel modes than now, and it will be easier to change between different modes when making a journey, through the introduction of integrated ticketing and other measures.

Aucklanders and visitors are able to access all significant destinations within the urban area by public transport.

11% of trips are expected to be made by public transport in peak periods, up from 7%. (see Figure 9.7).

The proportions of people travelling by public transport relative to car travellers in the morning peak period are expected to be:

Location	People travelling by public transport as a percentage of motorised trips	
	2001	2016
Into the central city	32%	49%
Southwards across the Harbour Bridge	28%	38%
Into the Isthmus	9%	18%

See Appendix B

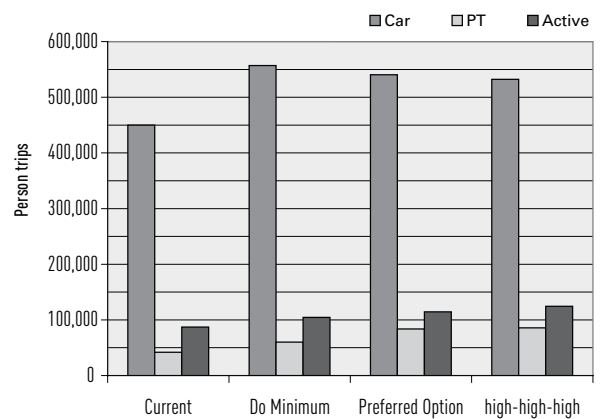


Figure 9.7: Trips by vehicle, active modes (walk and cycle) and public transport (morning peak)



Desired Outcome	Expected Results by 2016
Pedestrian and cyclists are able to access all local destinations easily and safely.	<p>More children are expected to choose to walk and cycle to school each day.</p> <p>More adults are expected to choose to walk and cycle as part of their commute to get to their daily activities.</p>
A transport system that provides people with disabilities the ability to participate more fully in society.	<p>The transport system is expected to significantly improve access opportunities for people with disabilities, through improvements to all aspects of public transport journeys including getting to interchanges, the quality of the interchange environment, functionality, and the frequency and quality of services.</p>
A transport system which provides affordable and reliable access and mobility.	<p>User perceptions of the transport system on affordable and reliable public transport are expected to improve over current levels.</p>



Objective 4: Protecting and promoting public health

The preferred strategic option will provide a transport system that protects and promotes public health by:

- Increasing the share of trips by active modes (walking and cycling) and public transport
- Reducing emissions to air from motor vehicles – mainly due to expected improvements in fuel quality, engine technology and encouraging non-polluting modes.

- Managing the quality of water run-off by treating more roads with measures that reduce noxious emissions from motor vehicles to stormwater catchments.
- Reducing noise and vibration effects from the transport system through the introduction of specific building design requirements and appropriate controls in areas adjacent to rail corridors and motorways.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
Fewer and cleaner vehicle emissions.	Relative to current levels, emissions to air from transport are expected to change as follows: <ul style="list-style-type: none"> • Reduce NOX emissions by 21% • Reduce PM10 emissions by 23% • Reduce VOC emissions by 54% (See Figure 9.8)

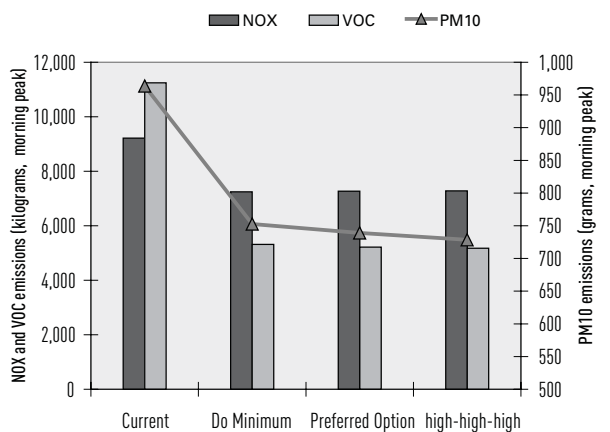


Figure 9.8: Vehicle Emissions (morning peak)



Desired Outcome

Expected Results by 2016

Transport choices which contribute to promoting a more physically active population.

By 2016, 15.5% of trips are expected to be by active modes (see Figure 9.9).

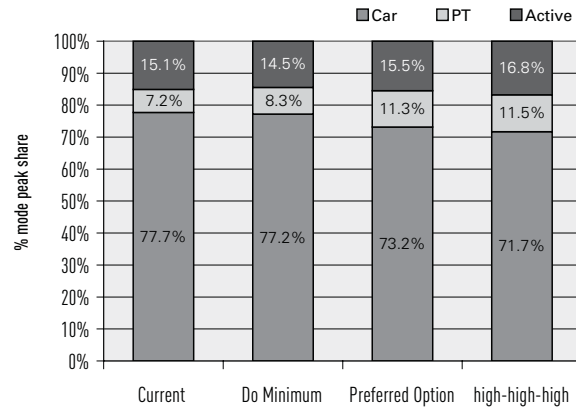


Figure 9.9: Mode shares (morning peak)

Desired Outcome

Expected Results by 2016

Reduced effects from noise and vibration on communities that originate from the transport system.

By 2016 all District Plans to contain policies and methods which address the adverse effects of noise and vibration on development adjacent to rail and motorway corridors.



Objective 5: Ensuring environmental sustainability

The expected outcomes for environmental sustainability will not offer improvements over 2001, nor will the option achieve the Kyoto target for CO2 emissions. Any improvements in environmental sustainability require significant changes that are not

within the control of the Regional Land Transport Strategy. These relate particularly to the fuel efficiency of vehicles and increased travel demand as a result of regional growth.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
Reduced non-renewable energy use by the transport system.	As a result of the significant increase in population and economic activity, energy used to travel as measured by fuel use is expected to increase by 26% (see Figure 9.10).

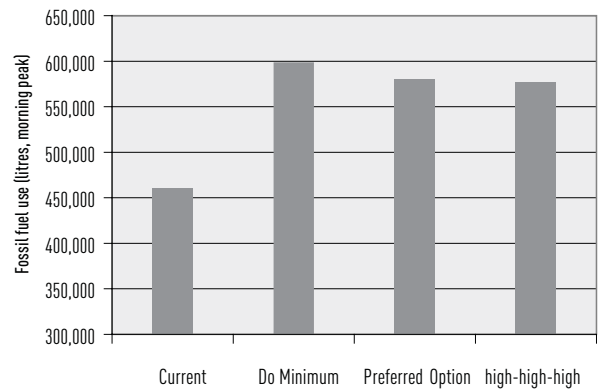


Figure 9.10: Fossil fuel use per annum

Desired Outcome	Expected Results by 2016
Reduced carbon dioxide emissions from the transport system.	CO2 emissions generated by the transport system are expected to increase by 21% (see Figure 9.11).

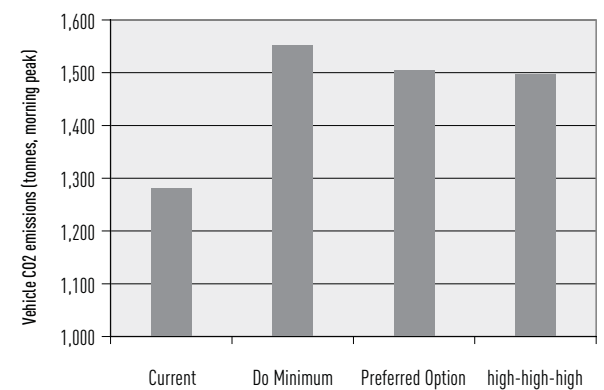


Figure 9.11: CO2 Emissions



Desired Outcome	Expected Results by 2016
Improved water quality from stormwater discharges originating from transport infrastructure.	Discharges to water from the transport system are expected to increase by 20%.
The protection of sites and areas of natural and cultural heritage value from the effects of new transport infrastructure.	The level of protection of sites and areas of natural and cultural heritage is expected to improve.



Objective 6: Supporting the Auckland Regional Growth Strategy

The preferred strategic option will provide a transport system that supports the Auckland Regional Growth Strategy by:

- Improving accessibility to and between growth centres¹ in peak and interpeak periods by car and public transport
- Improving the walkability in growth centres by significantly increasing the investment in

pedestrian amenity over and above planned town centre development budgets

- Significantly increasing the level of fixed rapid transit services to and between growth centres.
- Provide transport infrastructure investment which assists both in leveraging further higher density development within those centres and making the centres more attractive places in which to live, work and play.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
A transport system which supports and assists in instigating growth within the higher density growth centres and corridors that are identified in the growth strategy and sector agreements (or in Chapter 2 of the RPS).	It will be easier to get to and between growth centres than in 2001, enabling growth centres to contain a higher proportion of the region's population and employment than in 2001. 13% of the urban population should be living within the regional growth nodes.
Walking and cycling opportunities which improve the cohesion of and movement in higher density centres that are identified in the growth strategy and sector agreements.	The number of walking and cycling trips in centres is expected to increase by 63% from 2001 to 2016.

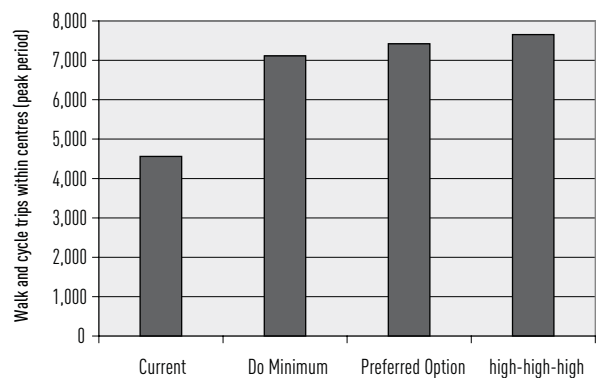


Figure 9.12: Walking and cycling Trips in Town Centres (morning peak)

¹ The growth centres are illustrated within the growth concept refer to appendix B.



A transport system which provides better linkages to and between the higher density centres identified in the growth strategy and sector agreements.	Rapid transit services linking regional growth centres on the rapid transit network will not be more than 10 minutes apart in the morning peak.
Reduced community severance from the transport system.	Although traffic volumes on key arterial roads are expected to increase, improvements to the pedestrian environment will reduce the severance impact.



Objective 7: Achieving economic efficiency

The preferred strategic option will provide an economically efficient transport system by requiring all agencies responsible for transport in the region work together to avoid unnecessary costs and maximise benefits to the region.

Expected performance against the specific outcomes sought for this objective is:

Desired Outcome	Expected Results by 2016
The cumulative transport investment decisions made by the region will have delivered the greatest cumulative amount of benefit.	Projects giving effect to this strategy are chosen to ensure the maximum benefit in relation to its objectives while avoiding unnecessary costs.

9.3 OPTIONS TO IMPROVE EXPECTED OUTCOMES

The outcomes identified above are for the preferred strategic option. The components of this option reflect the opportunities and constraints imposed by the issues listed in the introduction of this chapter.

Increasing funding by approximately 25 per cent would allow a strategic option of high roading, high public transport and high travel demand management to be considered. If implemented, this option would perform better than the preferred option in terms of desired outcomes. However it would require additional funding of \$2.8 billion and has a number of additional risks² that would need to be overcome. In particular, is the regions ability to complete all the work and undertake it cost-effectively within the next ten years.

Changes in policies or events outside the scope of this strategy may impact on the ability to achieve expected outcomes. This is particularly the case with policies such as fuel quality and engine specifications, which primarily affect environmental sustainability outcomes, and land use development patterns which could affect all outcomes.

² Refer to Technical Paper 28 on identified risks



