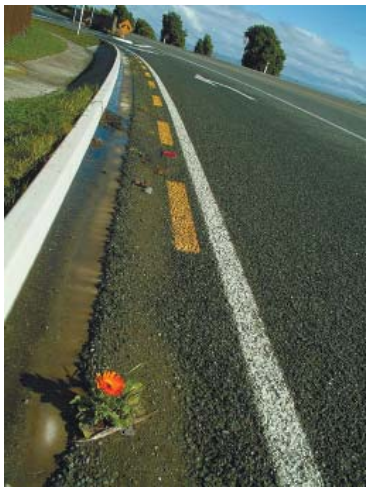

Regional Land Transport Strategy for Nelson City Council

June 2009

NELSON CITY COUNCIL

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Contents

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1 Foreword

Many Nelson residents have clearly signalled that they want a wider range of reliable transport options. Surveys tell us that many are dissatisfied with aspects of the current transport options and management. Careful thought has gone into the mix that is presented in this strategy. We want to offer improved choices that will see the best, most efficient and safe use of our transport infrastructure, especially in the face of increasing fuel prices.

This approach is in line with what is signalled in the recently updated NZ Transport Strategy 2008 and the ambitious targets set by Central Government. Instead of building new roads, it encourages more public transport, walking and cycling and increasing the number of occupants in cars. To enable everybody to contribute to achieving these targets, we need more choices for when we need to travel.

The Regional Transport Committee is aware that many of the submitters on the Corridor Study options favoured additional roads, and specifically some form of Southern Link, to address some peak hour traffic issues.

Consideration of this and other options and all the issues, including affordability, has led us to favour ways to get more out of our existing network. However, monitoring will continue to assess the need for additional road capacity, and Council has indicated it is commissioning a study into arterial traffic flows between Annesbrook roundabout and the city.

This strategy marks a new approach compared with how our land transport network has been managed in the past. We propose a significant increase in public transport services and the introduction of travel demand management. Both initiatives aim to make more efficient use of the existing network, thereby reducing congestion and costs for people as they travel or transport goods around our city.

Of course there are many features of the existing transport network that work well and we want to enhance these, including making our roads safer. We also propose to continue improving our much admired cycling and walking facilities. When combined with travel demand management these modes are ideal for many shorter trips, including moving children and students between home and school. We want to build on the good work already started by the Safer Journeys to School and Walking School Bus programmes.

The Committee sees this strategy as the most affordable, resilient and viable approach to meeting our current and future transport needs and to being in a position to adapt to a changing future.

Derek Shaw
Chair of the Regional Transport Committee

2 Executive summary

This Regional Land Transport Strategy (RLTS) sets the direction for the development of Nelson's land transport system for the next 30 years. It aims to deliver a sustainable transport network within Nelson to meet the current and future needs of the Nelson community and the wider region. Further detail on the way this direction is translated into actions by Council will be set out in the 2009 Long-term Council Community Plan.

This strategy signals major anticipated changes in the way people will move into, around and out of Nelson city. It responds to the likely effects of fuel prices continuing to increase [p9]. Therefore the long term vision and mission underpinning this strategy are: [p8]

> *A sustainable transport future for Nelson; and*
>
> *To have a land transport system that is safe, efficient, integrated and responsive and that meets the needs of the region in ways that are environmentally, socially and economically sustainable.*

It has six high level objectives under the following headings:

- Environmental sustainabiliy
- Assist economic development
- Safety and personal security
- Access and mobility
- Public health
- Affordability

All the issues and targets set in this strategy relate to these six objectives.

As well as a greater emphasis on public and active transport – cycling, walking, and other related modes – this strategy introduces the use of travel demand management to ensure a transport system than can adapt to and provide for the changing needs of the community.

Travel demand management [p42] is a new concept as applied in this region, but its effectiveness is well established overseas. Travel demand management aims to reduce the number of private vehicle trips and especially single occupant vehicle trips. It uses a range of methods to influence how, when and where people travel so the transport system is more sustainable, including:

- Travel behaviour influences such as education, promotion, marketing and road pricing
- Parking charges
- Land use planning

The main aim of travel demand management is to maximize the efficiency of the transport system with minimal expenditure.

Cross boundary issues [p10] are part of the context within which this strategy has been developed. While this strategy focuses on Nelson city,

a significant proportion of traffic comes from the Tasman District Council. Regional coordination and integration is clearly needed so the long term strategies set out here are effective.

The package of measures outlined in this strategy will help the community to shift to more sustainable ways of moving into, around and out of the city. Trends in response to increased fuel prices are already showing up through traffic count data. Despite continued population growth, traffic volumes have levelled off.

This strategy covers the legislative context [p13], the vision, objectives and key principles [p8], which are a sustainable, safe, integrated and responsive land transport system. It then sets out demographic and economic trends [p18] and what these imply for changing transport use. It describes the current network of arterial, principal and distributor roads and the traffic flow profile [p25]. Current passenger and active transport networks are also described [p30]. Transport issues are analysed [p31] in relation to the six high level objectives then the vision and targets are set out [p40], also under these six headings. Policies and their implementation follow [p42].

Finally, this strategy covers funding and sets out monitoring indicators.

Appendices to this document are important components of the overall package of measures. These include the Passenger Transport Network Plan and the Travel Demand Management Strategy.

3 Introduction

Purpose

This Regional Land Transport Strategy (RLTS) sets the overall direction for the development of the land transport system in Nelson. This document identifies the measures necessary to deliver a sustainable land transport system that meets the future needs of the Nelson regional community.

This document represents a point of reference for the local community. The development of the transportation network in a manner that is consistent with this strategy will ensure that the aspirations of the community are met.

This Strategy identifies the role of all land transport modes over the next thirty years.

Vision, objectives and key principles

The vision for the Nelson land transport network is:

> *'a sustainable transport future for Nelson'*

The mission for Nelson is:

> *'to have a land transport system which is safe, efficient, integrated and responsive, and that meets the needs of current and future generations in ways that are environmentally, socially and economically sustainable.'*

This vision is embodied in the following high level objectives:

- **Environmental Sustainability:** a transport system that supports international, national and regional strategies for energy efficiency and climate change, and protects natural systems and community values
- **Assist Economic Development:** a transport system that supports national and regional development
- **Safety & Personal Security:** a transport system that reduces road trauma and contributes to a sense of individual and community safety and security
- **Access & Mobility:** a transport system that is effective, integrated and physically and financially accessible by all users
- **Public Health:** a transport system that contributes to improved health and well-being
- **Affordability:** a regional transport programme that is affordable for the Nelson community and users

The vision and objectives of this strategy can only be achieved by moving away from providing for travel demand by building roads and infrastructure to reducing vehicle use by encouraging transport behavioural change, providing improved modal choice and reducing the demand for travel. The available means of achieving this vision are complex and inter-related. It is clear that no single measure in isolation will be successful in meeting the high level objectives and an integrated

package of measures is required.

Such an integrated package must be underpinned by the key principles that support the vision of an affordable, integrated, safe, responsive and sustainable land transport system as outlined in the New Zealand Transport Strategy. These key principles must be considered across all areas of activity to deliver the Strategy.

A Sustainable Land Transport System

The land transport system is vital for economic and social wellbeing, but negative environmental and social impacts can occur and need to be minimised or mitigated. Managing the demand for travel and changing to more efficient means of transport with lesser environmental impact and greater social cohesion is required. The NZ Transport Strategy states "the transport sector cannot endlessly build its way out of all its problems". A range of approaches is needed, starting with improving the efficiency of existing infrastructure, along with parallel initiatives to influence the mobility choices people make, and only then considering further capacity improvements on a selected basis.

Recent oil price rises have focussed attention on the longer term availability of fuel for private vehicles. Increased fuel costs associated with a peaking of oil production are likely to become permanent, affecting the total cost of travel and hence the amount of travel. The increased cost of oil will probably lead to alternative forms of energy becoming more viable. It is relevant in the development of a strategy to recognise these increased travel costs will impact upon overall levels and modes of travel demand. A more sustainable approach would recognise the need to provide safe alternative choices that reduce people's dependence on non-renewable resources, while recognising that use of the private motor vehicle will continue to predominate for some time.

A Safe Land Transport System

It is essential that the safety implications of any activity are fully considered and safety improvements are sought in all actions. This is not just limited to physical safety, personal security is also important. Actions can be taken to improve safety for all people, no matter how they choose to travel. The design and location of the land transport network and urban spaces are significant factors. Equally targeted and appropriate education and promotion are methods that can contribute to significant safety outcomes.

An Integrated and Responsive Land Transport System

A complementary package of measures will work towards the vision and objectives of the Strategy. This includes effective connections within the land transport system and also in other areas that impact on the way people travel and engage in their day to day activities. There needs to be close integration between transport planning and land-use planning and collaboration with other sectors within the public and business communities. This will be a challenging task that requires all of the

organisations and agencies involved in delivering transport outcomes to work together to implement the Strategy.

The provision of a multi-modal land transport system provides a more flexible land transport system that is inclusive of all members of society. More intensive use of the existing urban areas creates a more efficient land transport system, by ensuring that the need to travel is reduced. A realistic choice of transport options, especially within the urban areas, completes the picture of an integrated and responsive network.

Responsibilities

The Nelson Regional Transport Committee (RTC) is responsible for the preparation and monitoring of the RLTS. This Committee includes representatives of Nelson City Council (NCC), New Zealand Transport Agency (NZTA) and representatives of other agencies and stakeholders.

Responsibility for the delivery of the measures contained within the strategy falls to both Nelson City Council and the NZTA with help from other agencies. NZTA has responsibility for maintaining and upgrading the State Highway network, while Nelson City Council has responsibility for all of the other public roads within its administrative boundary, for cycle and pedestrian facilities and the provision of public transport services and travel demand management.

Timeframe

The Land Transport Management Amendment Act 2008 requires that a RLTS must at all times be kept current for a period of 30 years. Furthermore, a RLTS may be renewed from time to time, but must be renewed at least once every 6 years.

Although the RLTS is required to identify requirements for funding purposes over a 30-year timeframe, even with the best forecasting available, changes in demographic, transportation trends and external influences will occur which were not anticipated. The 6-year RLTS review requirement means that the RLTS is a 'living' document, subject to review and revision in line with demand forecasts and changes to Government policy. This review process is coupled with a programme of monitoring, to review both the implementation and currency of the strategy in the light of such changes, with the preparation of an annual monitoring report.

For funding and planning processes, this RLTS defines;

- "Short Term" as being to 2014
- "Medium Term" as being from 2014 to 2026
- "Long Term" as being after 2026, but subject to on going review and monitoring

Cross Boundary Issues

The Nelson Regional Land Transport Strategy focuses on the transport issues for the Nelson City Council area. However, there is a need to integrate responses to these issues with the Regional Land Transport Strategies of Tasman District Council and Marlborough District Council.

A major issue for Nelson is managing the flow of people and freight between Tasman District and Nelson. Richmond and its hinterland are identified as generating a significant amount of traffic into and out of Nelson. Likewise the SH6 connection to Marlborough District over the Whangamoas is another key connection. Effectively implementing the Nelson Regional Land Transport Strategy will require close cooperation with Tasman and Marlborough District Councils. For example, the implementation of public transport improvements, parking controls and the travel demand management plan need to be done in collaboration with Tasman District Council and other relevant agencies. Input will be sought on this draft Nelson Regional Transport Strategy from Tasman District Council and Marlborough District Council and the Regional Transport Committee will submit on their plans when opportunities arise.

Layout of the strategy

The diagram below shows the Vision, Mission and Objectives for the Nelson transportation network and how the activities proposed will help achieve these. The Issues, Targets, Policies and Activities are discussed later in the document.

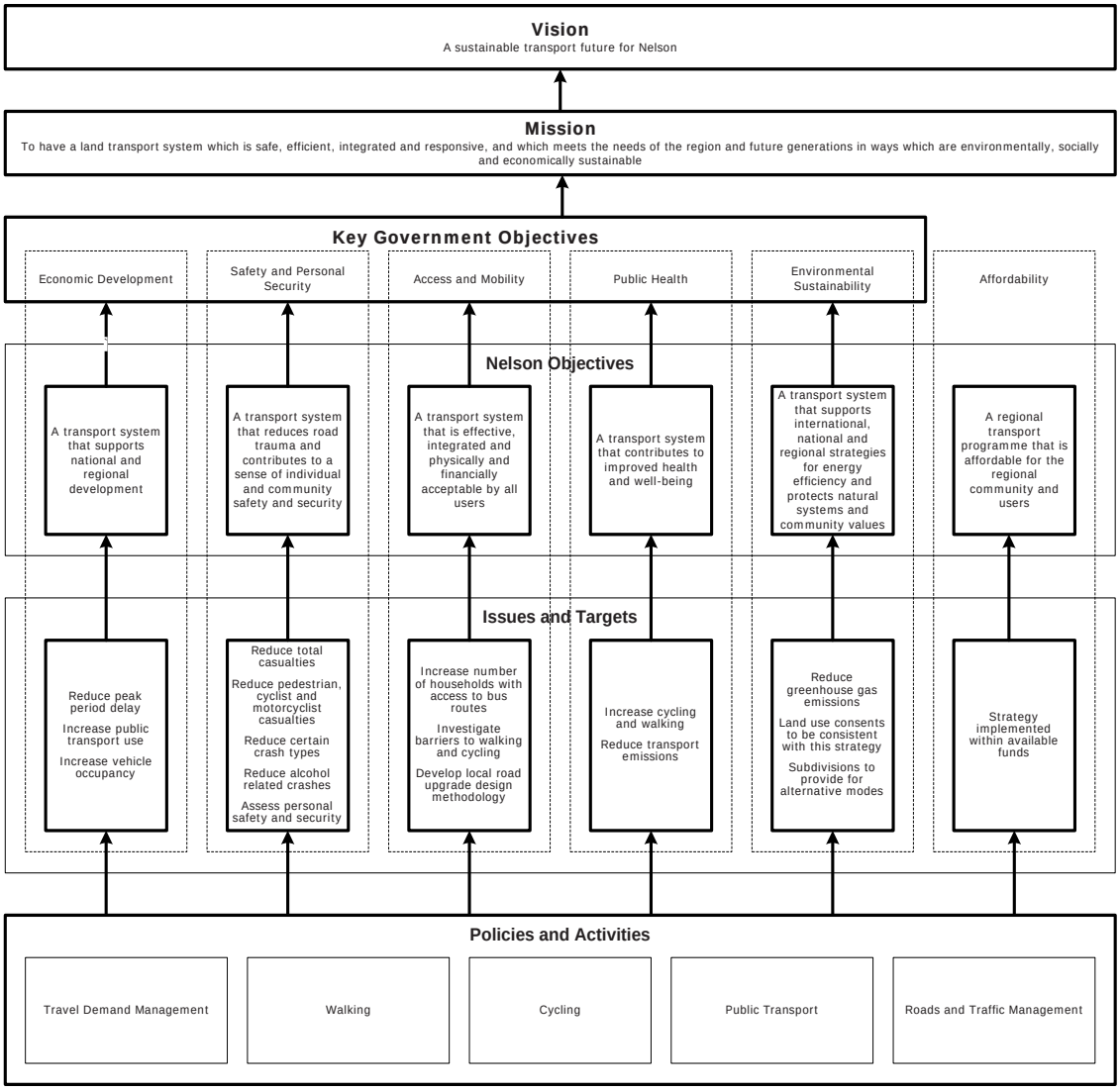


Figure 3.1 Schematic Layout of RLTS

Strategy development process

The RLTS relates to the entire Nelson City Council area. The principal transport issues arise in the urban areas, which have been investigated as part of the North Nelson to Brightwater Corridor Study, a project undertaken under a collaborative agreement between Nelson City Council, Tasman District Council and Transit New Zealand (now the New Zealand Transport Agency) on transport planning issues. This study recognised the close inter-dependence of these agencies, particularly with regard to the planning for the future transport network.

An extensive consultation exercise was undertaken to identify issues relevant to the transport network, potential projects and to obtain feedback on a draft package of projects. The development and assessment of strategies has been based on a transportation model developed for this specific purpose, which in turn has used demographic forecasts based on the Nelson Urban Growth Study (NUGS).

An initial 'long-list' of potential transportation projects and policies was reduced by the elimination of

those which were contrary to fundamental objectives. Remaining projects and policies were the subject of detailed analysis to identify areas of strength and weakness. An assessment of synergies between projects and policies then allowed a number of alternative strategies to be developed. Detailed analysis and consultation led to the development of this preferred package of projects which included:

- Improved Public Transport;
- Travel Demand Management;
- Walking and Cycling;
- Traffic Management; and
- Road projects.

In addition to the preferred package, the North Nelson to Brightwater Corridor Study also proposed two alternatives for increasing roading capacity between Nelson and Stoke:

- Peak Hour Clearways for High Occupancy Vehicles on SH6 and Waimea Road/Rutherford Street; or
- Southern Corridor Local Arterial Road.

Following consultation on the study a transport forum was set up with key stakeholders to discuss issues further and make recommendations to the Regional Transport Committee. The recommendations of the forum, which were to proceed with the preferred package but to defer the decision on any additional road capacity for at least five years and review roading capacity on an ongoing basis, were adopted as the final outcome from the study.

Legislative and statutory context

The overall framework for planning and funding the land transport system includes four important elements:

- Government policy; the New Zealand Transport Strategy 2002, the 2008 update, the first Government Policy Statement on Land Transport Funding and the New Zealand Energy Efficiency and Conservation Strategy.
- Legislation; Land Transport Act 1998, Land Transport Management Act 2003 and Land Transport Management Amendment Act 2008.
- Planning, funding and delivery mechanisms; regional land transport strategies, regional land transport programmes and the National Land Transport Programme (NLTP).
- Local funding; Long-term Council Community Plan and Annual Plan.

Government policy

The update of the New Zealand Transport Strategy (NZTS) was published by the Government in August 2008 with the overall vision that:

> 'People and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system'.

The NZTS sets out the key Government objectives for transport as:

- ensuring environmental sustainability;
- assisting economic development;
- assisting safety and personal security;
- improving access and mobility; and
- protecting and promoting public health.

This policy has signalled a significant change in approach to the development and funding of the land transport system. The emphasis has moved from traffic to transportation by all modes, with a wider range of potential funding sources and increased public participation in the decision making processes. This RLTS needs to reflect that shift.

In August 2008, following analysis of public submissions, the Government released it's first Government Policy Statement (GPS) to address the challenges faced by the transport sector to 2018/19. The GPS contains the following national targets:

- reduce kilometers travelled by single occupancy vehicles, in major urban areas on weekdays, by 10% per capita by 2015;
- increase the mode share of transporting freight by coastal shipping and rail by 2015;
- no overall deterioration in travel times and reliability on critical routes by 2015;
- reduce fatalities and hospitalisations from road crashes by 2015;
- increase patronage on public transport by 3% per year through to 2015;
- increase the number of walking and cycling trips by 1% per year through to 2015.

The Ministry of Transport was to translate these targets into regional targets by the end of 2008 but the current government is amending the government policy statement to reallocate funding to better reflect it's economic growth and productivity goals. The government is working towards releasing the final amended GPS in May. It is likely that the targets will be replace with "impact statements".

Legislation

Every regional council or unitary authority is required by Section 175(1) of the Land Transport Act 1998 to prepare a land transport strategy for its region.

The Land Transport Management Act (LTMA) came into force in 2003 to provide the legislative framework to give effect to the New Zealand Transport Strategy. This Act seeks to:

- provide an integrated approach to land transport funding and management which takes into account the views of affected communities;
- avoid adverse effects on the environment;
- give all relevant people and organisations opportunities to contribute

to developing land transport programmes;
- ensure options and alternatives are given full consideration at an early stage in the development of programmes;
- improve long-term planning and investment in public transport;
- ensure that land transport funding is allocated in an efficient and effective manner;
- improve the flexibility of land transport funding, including provisions enabling new roads to be built on a tolled or concession agreement basis; and
- amend the Land Transport Act 1998 to require regional land transport strategies to be reviewed to take account of the objectives of the 2003 Act.

The Land Transport Management Amendment Act was enacted in 2008. The purpose of this act is to enhance New Zealand's transport planning and funding system established under the LTMA by:
- reserving fuel excise duty for land transport purposes and changing the way fuel excise is set;
- augmenting central government transport funding by regional fuel taxes;
- changing to a 3-year planning cycle;
- introducing regional land transport programmes to rationalise land transport planning documents, reduce consultation, and encourage integrated land transport planning;
- increasing the term of regional land transport strategies and national land transport strategy to 30 years; and
- merging Land Transport New Zealand, the office of the Director of Land Transport, and Transit New Zealand into a single statutory Crown Entity (to be known as the New Zealand Transport Agency).

The existing Nelson Regional Land Transport Strategy is dated 2001 and precedes the enactment of the LTMA. The preparation of this new RLTS therefore provides an opportunity to reflect the change in national transport policy from both the LTMA and the Amendment Act.

New legislation came into force in 2009 which meant the Regional Passenger Transport Plan, prepared and consulted on in 2008, is inconsistant with current legislation. It has therefore been modified and renamed. A new regional public transport plan will be drafted and consulted on in 2011 to comply with the new Public Transport Management Act 2008.

Planning, funding and delivery mechanisms

The RLTS plays a crucial role in the planning and funding structure for land transport. It is the means by which a region can 'take stock' of existing and future travel conditions, issues, problems and opportunities as the basis for identifying a longer term strategy for action. The RLTS provides the basis for the formulation of detailed proposals in Land Transport Programmes, which then become a part of the National Land

Transport Programme.

It is a legislative requirement that the RLTS should give effect to any regional policy statements or plans to ensure transport network planning is integrated with other regional objectives. This RLTS has been prepared with reference to a number of other Nelson City Council plans, policies and strategies, including:

- Nelson Community Outcomes
- Regional Policy Statement
- Nelson Resource Management Plan
- Nelson Air Quality Plan
- Sustainability Policy
- Social Wellbeing Policy
- Nelson Urban Growth Strategy 2006
- Communities for Climate Protection Programme Local Action Plan 2008
- Iwi Management Plan
- Physical Activity Plan
- Safety Management Strategy
- Cycling Strategy ("Pedalling Along")
- Pedestrian Strategy ("Stepping Out")

Figure 3.2 shows how this Regional Land Transport Strategy relates to other legislative and statutory documents.

Making best use of resources by achieving value for money in the land transport sector is important, given the competing uses for funding. To achieve value for money, three underlying concepts will need to be used when planning, assessing and implementing strategies and activities:

- Effectiveness: Selection of projects that make the greatest contribution to the Government's targets as set out in the NZTS and GPS
- Efficiency: Maximising the outcomes from available resources
- Economy: Ensuring that the whole of life cost of obtaining quality outcomes is minimised.

Significance Policy

The RLTC must adopt a policy that determines significance in respect of variations made to the RLTS and Regional Land Transport Programme (RLTP). The RLTC has determined that the thresholds that determine significance are as provided by the NZTA (refer Part C of NZTA Planning, Programming and Funding Manual) with the exception that changes in the total cost of the road maintenance and renewal programme are not considered significant for the purposes of this policy.

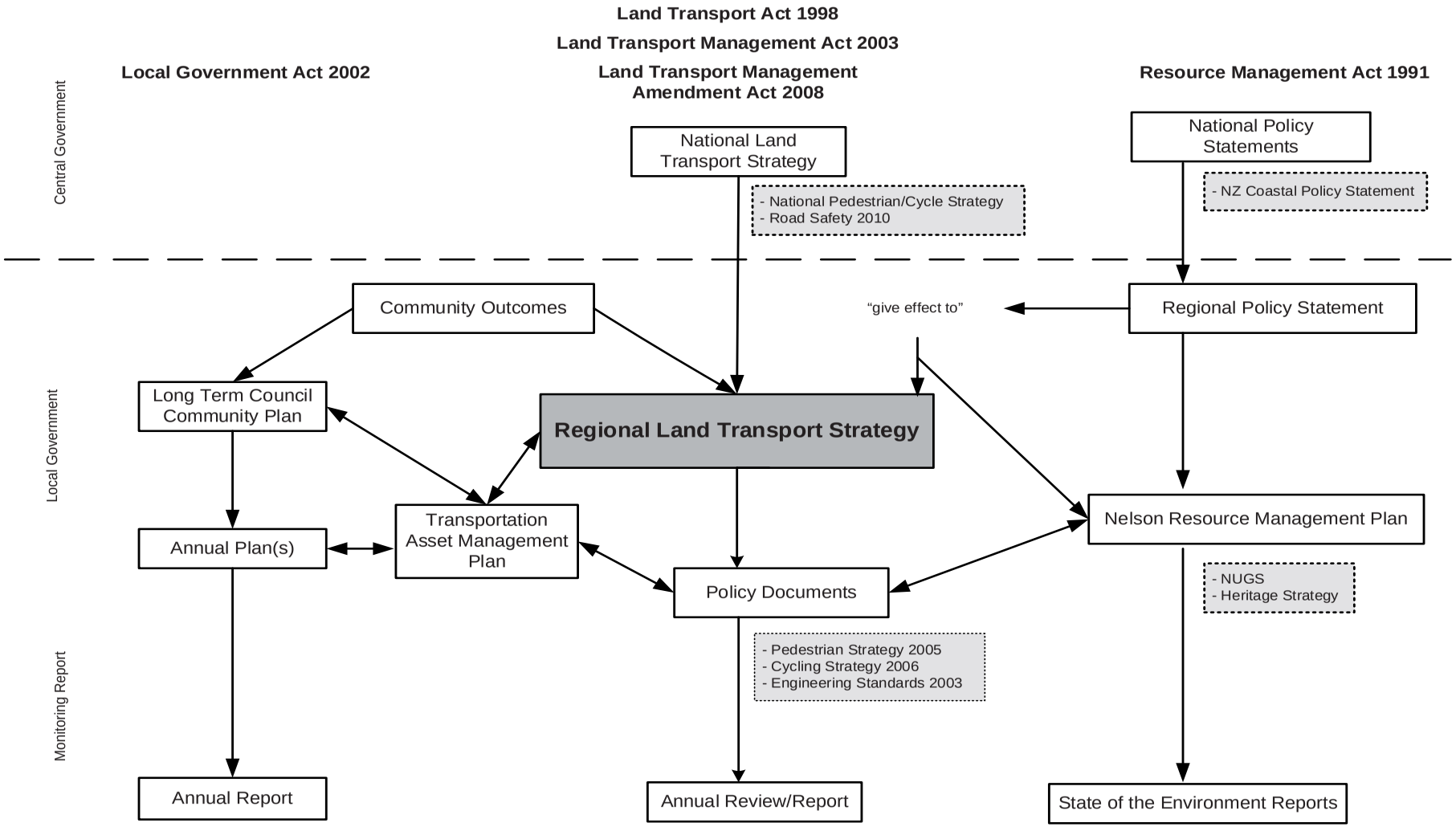


Figure 3.2 Hierarchy of Planning Documents

4 Regional overview

Demographic and economic trends

Population growth

The Nelson region is geographically small with the primary settlement being Nelson City.

Table 4.1 below gives the population as derived from the Census information made available from the Statistics New Zealand website.

The Nelson region is split into three areas to show the regional distribution. The table also shows the adjacent urban centres in Tasman have very high growth rates, which have a significant impact on the Nelson transport network.

Table 4.1: Population growth in Nelson and adjacent urban areas

	Population (Census Figures)				Growth
District	1991	1996	2001	2006	1996-2006
Nelson City	24,489	26,137	26,430	26,376	0.9%
Stoke	11,175	13,089	13,923	15,195	16.0%
Other (Glenduan, Whangamoa)	789	924	1,095	1,317	42.0%
Total NCC	**36,453**	**40,150**	**41,448**	**42,888**	**6.8%**
Richmond (Tasman)	7,920	8,892	10,581	11,715	32.0%
Hope (Tasman)	1,035	1,059	1,113	1,191	12.5%
Brightwater (Tasman)	1,023	1,239	1,425	1,794	45.0%

The Council has developed population projections after adjusting the Statistics NZ projections with some additional local specific factors. The projections are shown on the following graph. Full details on the factors that were used when making these projections are outlined in the Nelson Urban Growth Strategy.

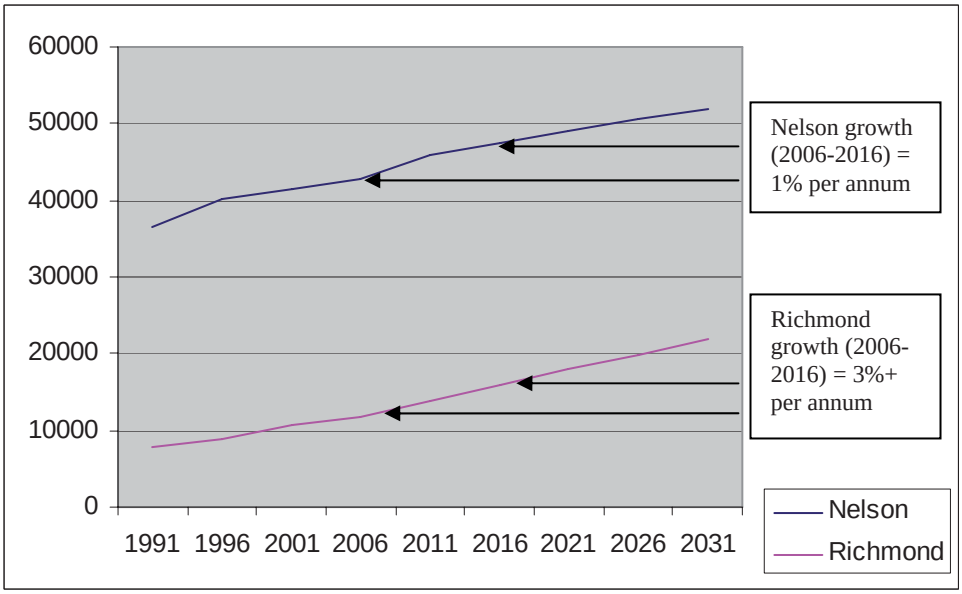


Figure 4.1: Population growth

The projection for 2031 is higher than the latest Statistics New Zealand figures (released in December 2007); based on the 2006 Census the 2031 "medium" estimated population is 49,300, by which stage New Zealand's population is expected to reach almost 5.1 million people.

Age distribution

From 1996 to 2006 the population of Nelson aged, with a greater proportion of residents in the 55+ year old age group (about 26%). Figure 4.2 shows that this trend is expected to continue, in common with the current national trend. The percentage of those over 65 years is expected to approximately double, i.e. this age group will exceed 25% within the next 20 years.

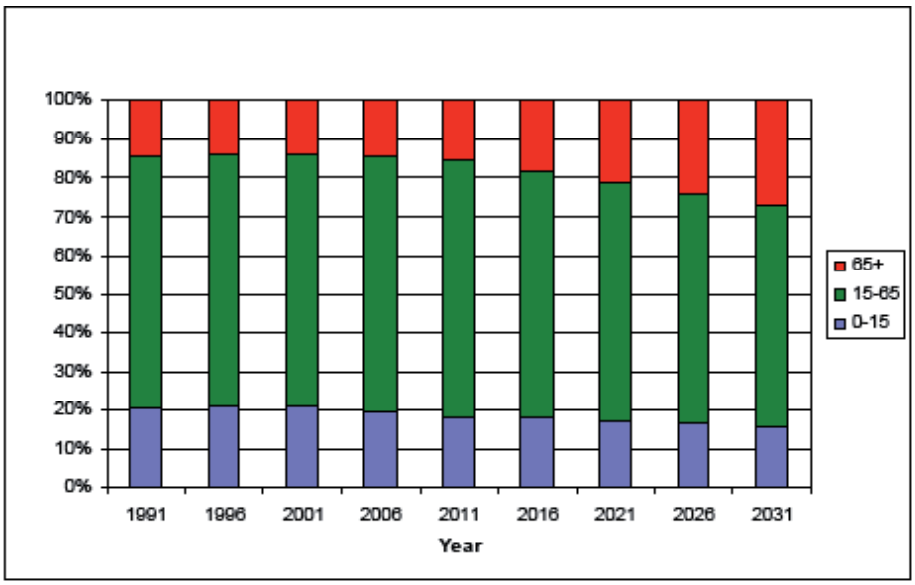


Figure 4.2 Population changes by age group

Households, car ownership and journey to work

The 2006 Census information for vehicle availability to households and journey to work mode of travel for persons aged 15 years and over are shown in Table 4.2. In addition to the Nelson geographic area the data for Richmond is provided as this has a significant impact on the Nelson Tasman transport network.

Table 4.2: Household, vehicle ownership and journey to work 2006 figures

Category	Description	Nelson Region	Nelson Areas			Tasman
			Nelson City Urban Area	Stoke Urban Area	Other	Richmond
Residential	Total households	16,920	10,599	5,853	468	4425
	Total population	42,888	26,376	15,195	1,317	11,715
	People per household	2.53	2.49	2.60	2.81	2.65
Car availability	Vehicles	27,535	16,795	9,820	920	7,630
	Vehicles per household	1.63	1.58	1.68	1.97	1.72
	Vehicles per person	0.642	0.637	0.646	0.699	0.651
	% Households with no vehicles	7.7%	8.3%	7.0%	1.3%	7.2%
Journey to work	Adults 15 years & over	22,023	13,797	7,512	714	5,790
	Walk	7.9%	10.2%	4.2%	0.8%	6.8%
	Bicycle	5.5%	5.8%	5.4%	2.1%	4.7%
	Motorcycle	0.9%	1.0%	0.9%	1.2%	0.8%
	Bus	0.5%	0.5%	0.6%	0.0%	0.5%
	Drove own car/truck	46.7%	44.3%	50.8%	49.2%	47.7%
	Drove company car/truck	11.8%	9.2%	12.5%	11.6%	13.2%
	Vehicle passenger	4.3%	4.3%	4.7%	3.7%	3.9%
	Work at home/off work	18.3%	18.6%	16.8%	26.0%	17.7%
	Other/unstated	5.4%	6.2%	4.1%	5.4%	4.6%

The table shows that within the Nelson region, the majority of households are located within the urban areas of Nelson City and Stoke and that there are approximately 1.6 vehicles[1] per household. This is similar to the national average.

The table also shows that the percentage of journey to work trips in the urban areas that are walking or cycling trips varies between 10% for Stoke and 16% for Nelson City.

About 1% travelled to work by motorcycle and 0.5% travelled by bus. Overall in the urban areas about 57% drove to work and 4.3% were passengers, indicating that the majority of vehicle trips were single driver trips with an average vehicle occupancy of less than 1.1, lower than in larger cities.

In the urban areas about 17-18% of workers aged 15 years or older were either off-work, working at home, or did not state their mode of travel. As school trips are excluded from these figures, the proportion of walking, cycling and bus trips would be higher.

The journey to work figures might not be exactly representative of the average modal split as they relate to a single day and are weather dependent.

Freight

The economic vitality of the Nelson region is reliant upon the continued prosperity of primary sector industries (forestry, fishing, agriculture) which in turn rely upon a high standard of access to markets, processing facilities and the port/airport.

One of the major freight industries is forestry. Port Nelson is a major export port for logs from Nelson/Marlborough forests as well as wood chips and timber/MDF. This forestry traffic is predicted to increase in the coming years.

Port Nelson, located near central Nelson off Haven Road (SH 6), is the only sea port in the region. Approximately 2.6 million tonnes of freight pass through Port Nelson annually, and this is expected to rise to 2.8 million tonnes by 2015. The former represents about 5% of the national volume, and is equivalent to about 3,300 tonnes of freight exported per day.

Air Connections

Nelson airport is New Zealand's fourth busiest commercial airport with 90 flights per day and is a significant destination of many light and heavy vehicle movements. The airport does not have any scheduled international flights.

1 The number of vehicles are an estimate as a small proportion of households were recorded with "unknown" or "3 or more" vehicles.

Employment

The 2006 Census information for education roll and employment (resident aged 15 years or older) are given in the table below (using the 2001 Industry sector employment definitions).

Table 4.3: Employment[2]

Category	Description	Region	Areas		
			Nelson City	Stoke	Other
Residential	Total Households	16,920	10,599	5,853	468
	Total Population	42,888	26,376	15,195	1,317
	Population per household	2.53	2.49	2.60	2.81
Total employment		22,005	13,794	7,491	720
Agriculture, forestry, fishing		891	519	309	63
Manufacturing		2739	1665	1005	69
Construction		1728	990	675	63
Wholesale trade		894	498	384	12
Retail trade		2511	1539	909	63
Accommodation, restaurant		1473	1077	372	24
Transport and storage		1053	615	414	24
Communications & Utilities		345	231	99	15
Office		4140	2628	1356	156
Education		1494	954	480	60
Community, recreation		3795	2412	1242	141
Other		942	666	246	30

Future travel demands

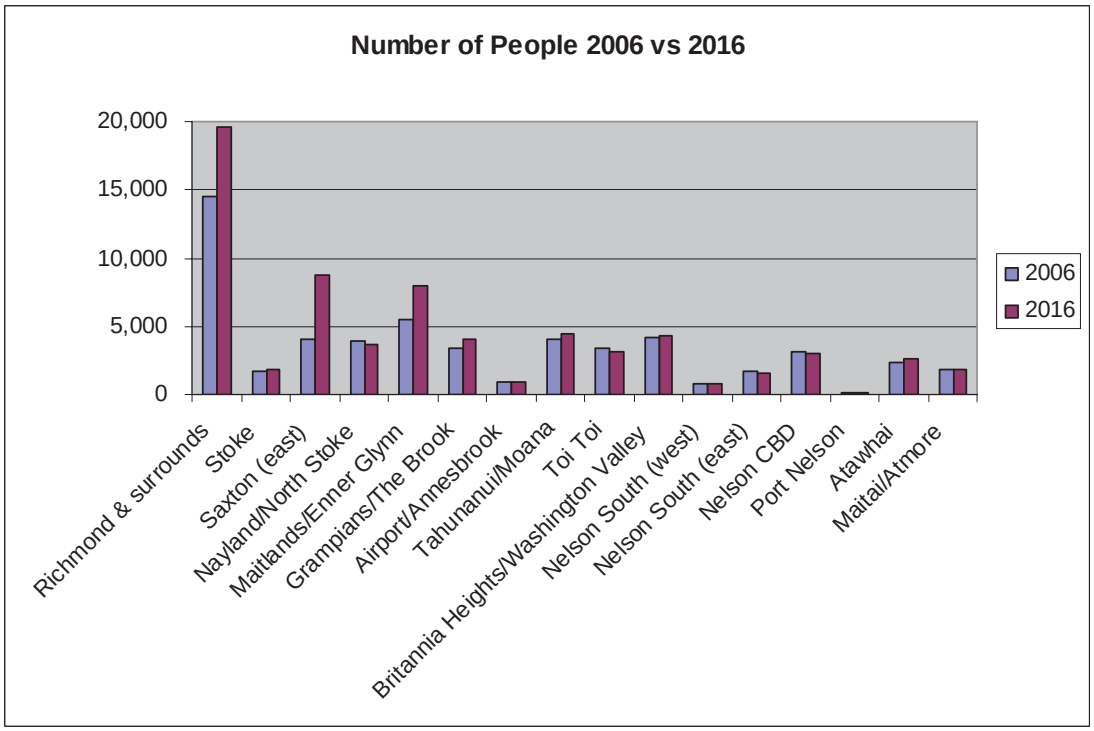
Forecast changes to population and employment in the Nelson and Tasman areas have been modelled to determine the journey to work travel patterns for the district in 2016.

The study area was broken into 16 travel regions to assist in identifying future travel patterns. The regions were defined to represent known population and employment regions.

Richmond is expected to receive considerable residential growth over the next 10 years and beyond. This coupled with an increase in 'lifestyle blocks' in the surrounding areas is expected to increase travel demand

2 This data relates to the residents of the Nelson region and not the jobs in the Nelson region. The employment industry categories are based on the 2006 definition.

significantly between Richmond and Nelson. Residential growth is also expected between the two centres – Saxton (east), Maitlands/Enner Glynn and The Grampians/The Brook. There will also be significant growth in employment at Richmond and the surrounding area, Stoke and the Nelson CBD. Figure 4.3 illustrates the expected growth patterns between 2006 and 2016.



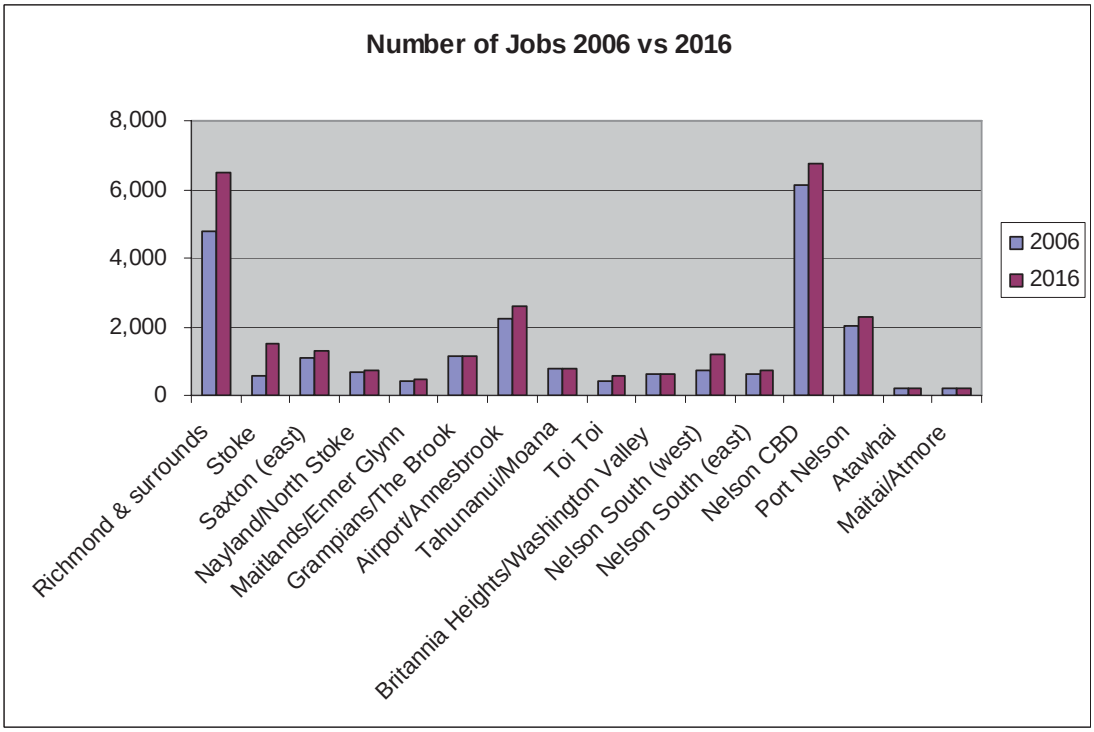


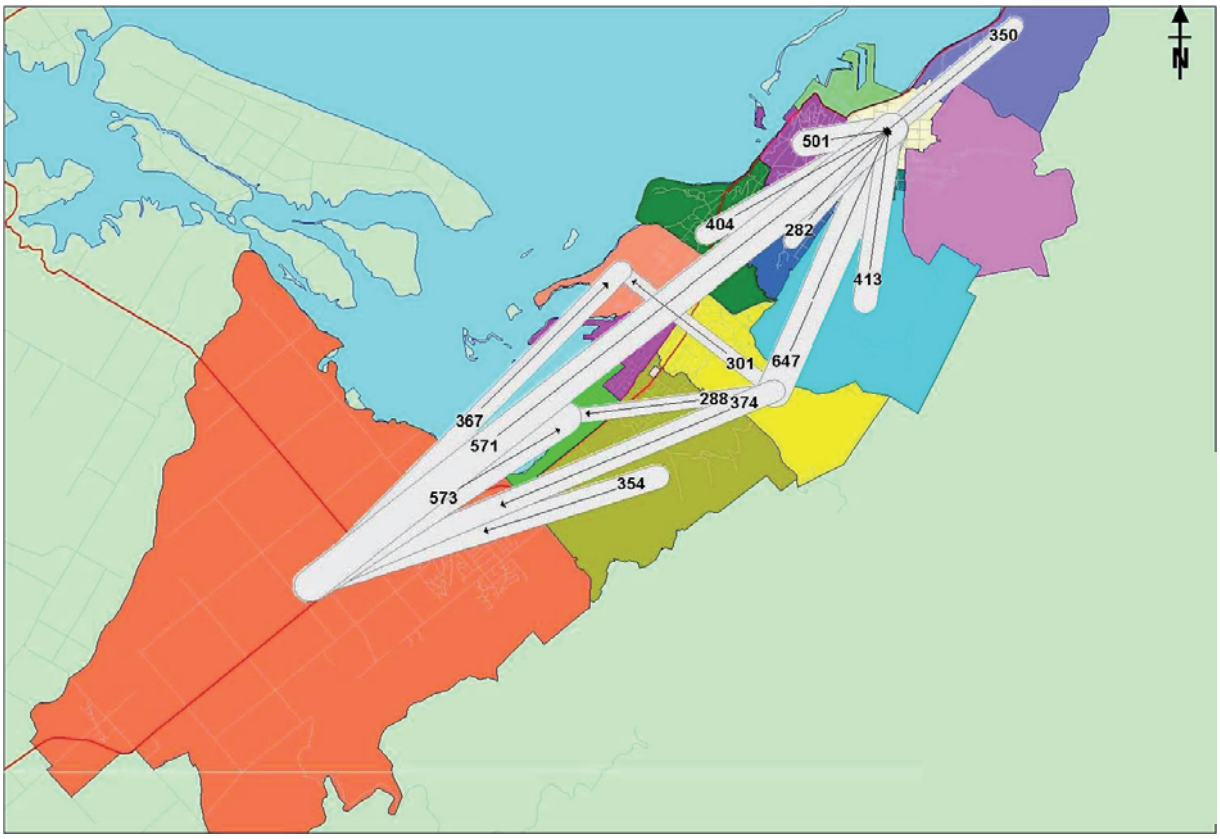
Figure 4.3 2006-2016 growth in population and employment

Journey to work movements

In 2016, the largest journey to work travel movements will be from the south travelling north. These are shown in summary, in Figure 4.4. Nelson CBD will be the major destination with 29% of all daily journey to work trips (excluding internal) ending there, but Nelson will not be a major trip origin, with only 3% of all daily journey to work trips (excluding internal) starting in Nelson CBD (reflecting the low residential population). Richmond is a less significant but still major destination (11%) as well as a major origin (15%). The Richmond zone includes the CBD as well as a broad area of other settlements.

However, there will also be significant east-west movements across the traditional Nelson - Richmond corridor, driven by urban development east of The Ridgeway, creating increased demand on cross-regional roads.

In addition, the analysis shows that there will be a substantial proportion of trips that will travel along only part of the corridor, such as trips starting in Richmond, or suburbs around Nelson, and ending in the industrial areas around Stoke.



Land Transport Network

Strategic network summary

The Nelson road network is predominantly urban with 202 km of local urban roads (all sealed) and 45 km of local rural roads (29km sealed). The annual volume of vehicle travel within Nelson is about 120 million vehicle kilometres[3].

Nelson's rail services were stopped in 1955, despite significant protestations from Nelsonians. The demolition of the infrastructure shortly after has limited transport options in the region ever since. Consideration of reintroducing rail transport was carried out as part of the Nelson to Brightwater Corridor Study but was discounted due to the high cost and low projected passenger numbers.

Cost estimates for light rail range from $10million - $40million per kilometre plus rolling stock. Generally populations nearing 300,000 begin to justify investment in rail infrastructure.

Arterial Roads

The principal regional route is State Highway 6 from Rai Valley, passing through Nelson City and Tahunanui to the boundary at Richmond (Champion Road).

Main Road Stoke along with Waimea Road, Rutherford Street, and parts of Haven Road and Halifax Street make up the principal non-state highway urban route linking Nelson City and Richmond. Also included in this key intra-urban route are the short portions of Annesbrook Drive and Whakatu Drive linking the SH 6 route with the Waimea Road / Main Road Stoke route.

Principal / Distributor Roads

The principal/distributor roads and other roads with a more local rather than through traffic function are described in the road hierarchy plans in the Nelson Resource Management Plan.

Traffic flow profile

The daily traffic flow profile for a typical weekday (as shown by State Highway traffic count sites) shows pronounced increases in traffic during the morning and afternoon peak periods. (Figure 4.5). The increase in peak period volumes is also evident in the rural state highway sites south and west of Richmond, which suggests that a significant proportion of people working in Nelson reside outside the main urban areas.

3 Refer Nelson City Council car-pooling trial,

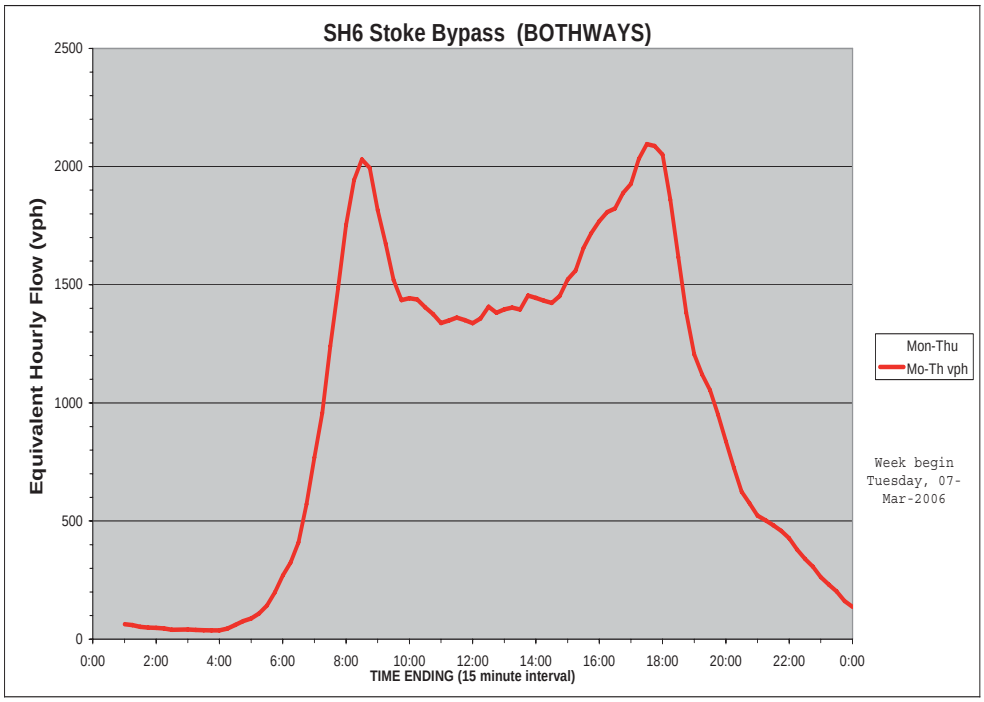


Figure 4.5 Traffic Flow Profile on Stoke Bypass

The yearly traffic flow profile shows that light vehicular traffic peaks during the December and January main summer holiday period when an influx of visitors descends upon the region. By comparison heavy vehicle flows peak in March and November, associated with agricultural produce peak periods.

Heavy vehicle traffic

The heavy vehicle route through Nelson is State Highway 6 which connects the Port and Airport with the urban areas of Nelson, Stoke and Richmond and the adjacent districts of Marlborough and Tasman.

Heavy vehicles make up around 6% of the traffic stream on SH6 south of the Port, which equates to approximately 1,200 heavy vehicle movements per day. To the north of Nelson (at Hira), the number of heavy vehicles drops to approximately 400 per day, which is 15% of the traffic stream. South of Nelson (at Wairoa Bridge), the number of heavy vehicles increases to over 1,500 per day, which is 19% of the traffic stream.

The proportion of heavy vehicles in the traffic stream between Nelson and Annesbrook is similar to state highway routes through other cities including SH2 in Napier and SH44 in New Plymouth.

Traffic growth

Traffic counts at the two screenlines in Nelson show that traffic growth has levelled off or is in decline since 2004/05. Prior to that, between 2000/01 and 2004/05 a period of sustained growth occurred, and earlier still, between 1996/07 and 2000/01 there was no growth. The screenline locations and traffic count data is shown in Figures 4.6, 4.7 and 4.8. The petrol price information is provided for information only. While there is likely to be some corrolation between petrol prices and traffic volumes, it should be recognised that other unassessed factors also influence traffic volumes such as the opening of Whakatu Drive in January 2001.

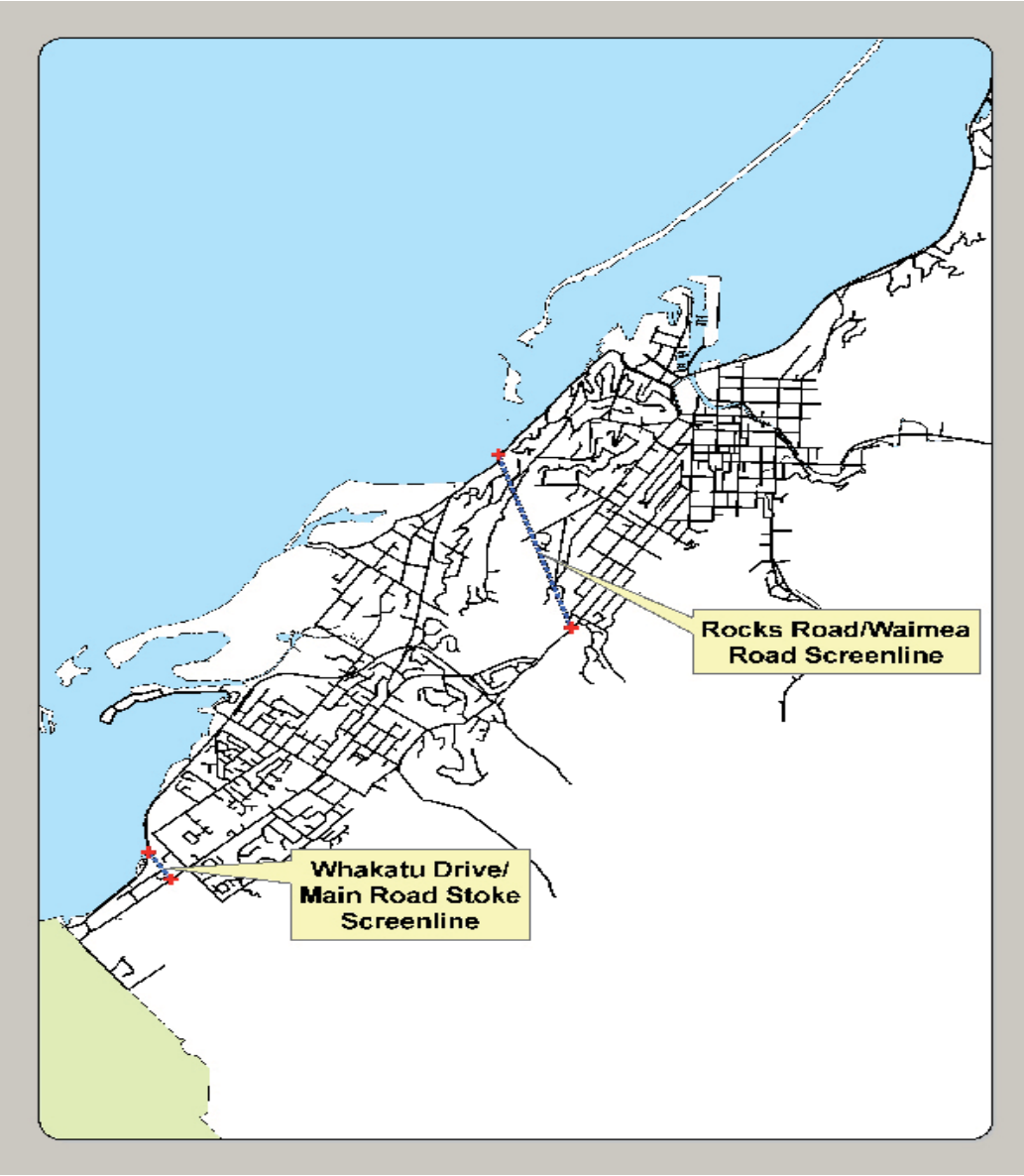
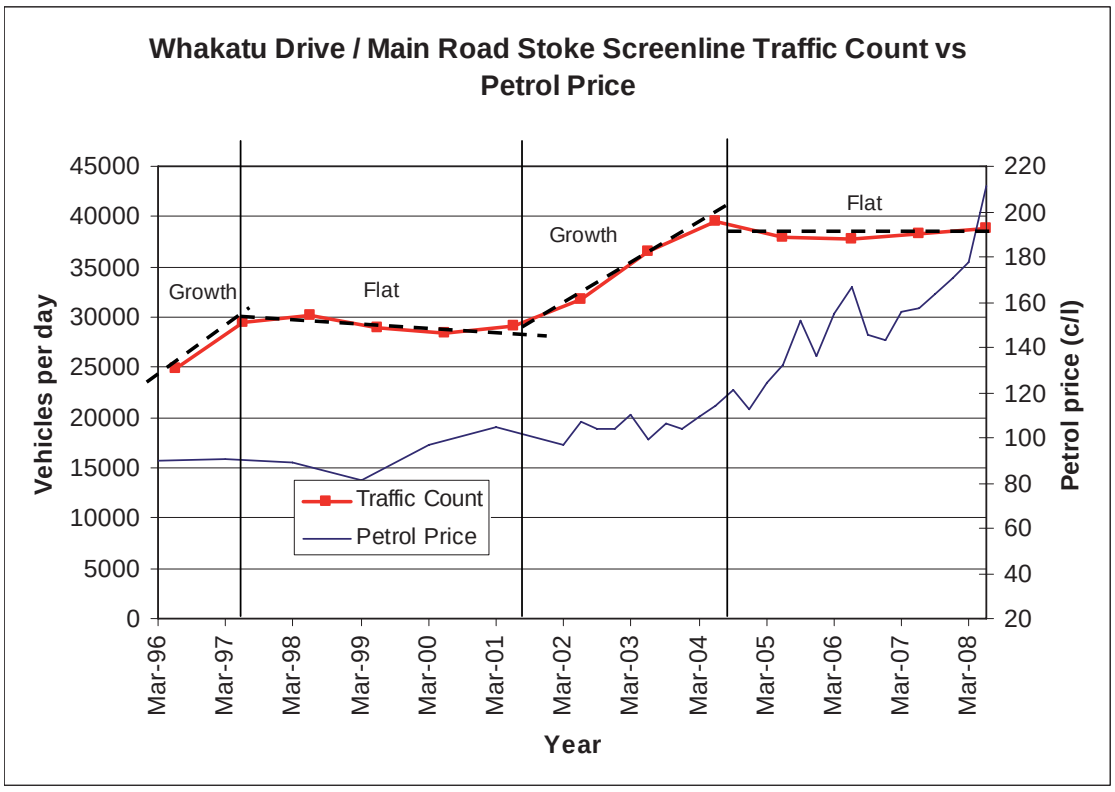


Figure 4.6



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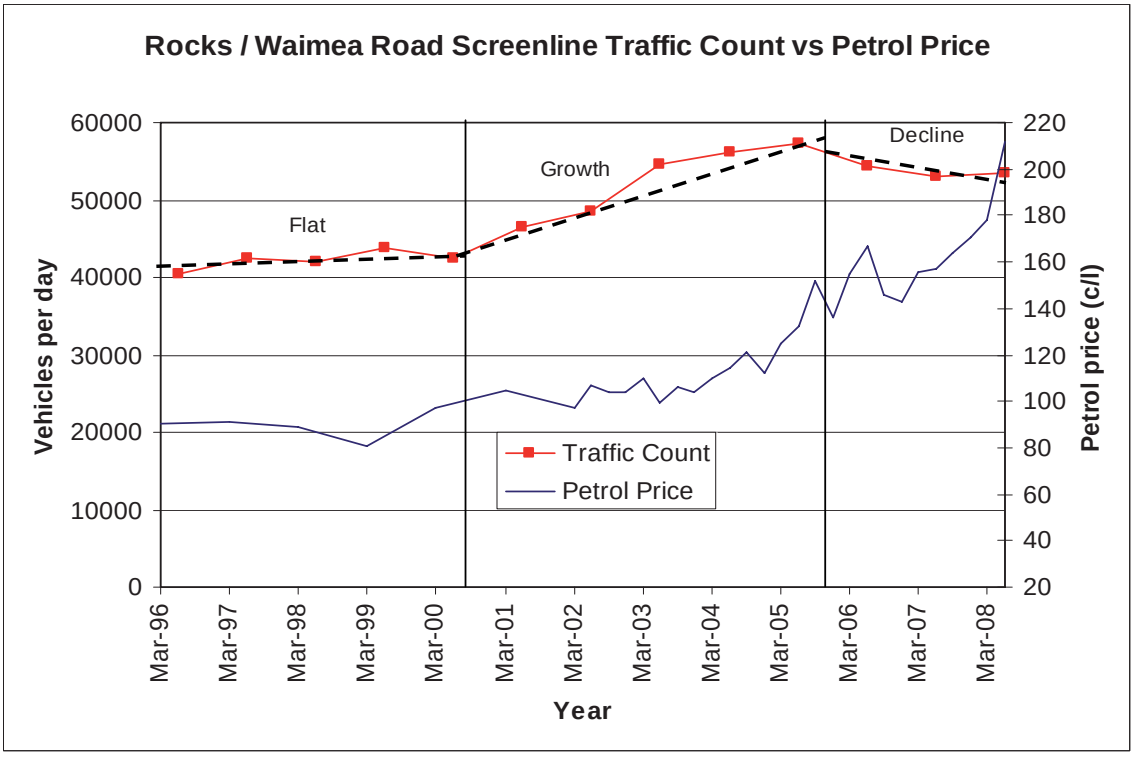


Figure 4.8

Examining the 2001 and 2006 figures for the Hira and Stoke Bypass count sites, the growth in heavy vehicles is shown as being 3.4% and 5.0% respectively. That heavy vehicle growth on the Stoke Bypass exceeds that for light traffic is not surprising, given it is on the main route to the Tahunanui Industrial area and Port Nelson.

Travel Reliability

Averaged travel time data, shown in Figures 4.9 and 4.10 taken since 2001, indicates that traffic travelling along Rocks Road has been delayed by around one to two minutes in the AM peak, and one to three minutes in the PM peak. Along Waimea Road the AM peak delays averaged two and a half minutes, but can be up to five minutes. In the PM peak, delays range from one to three minutes.

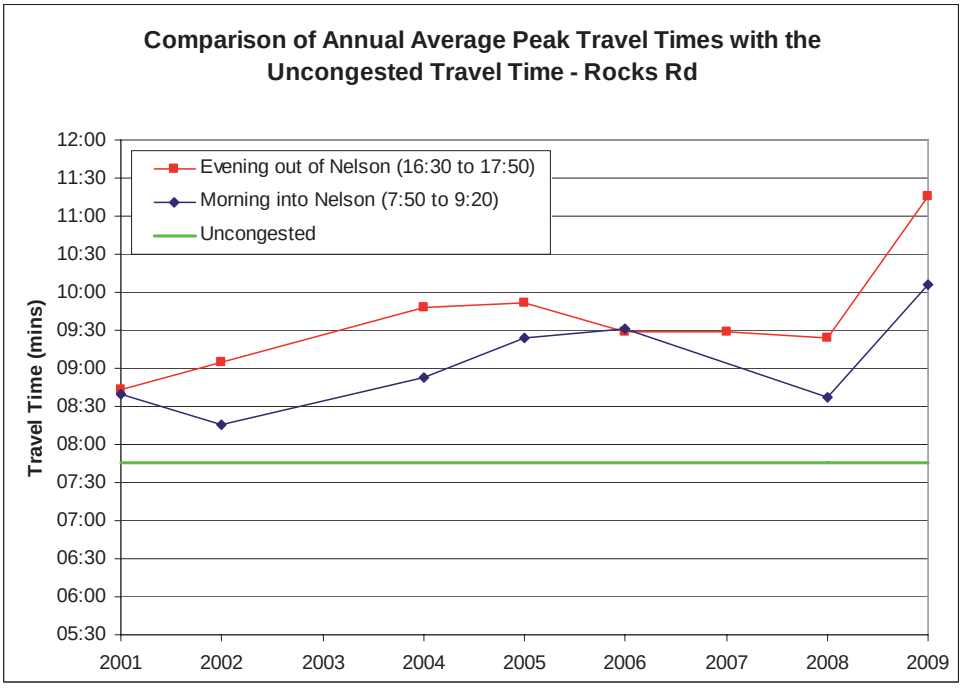


Figure 4.9

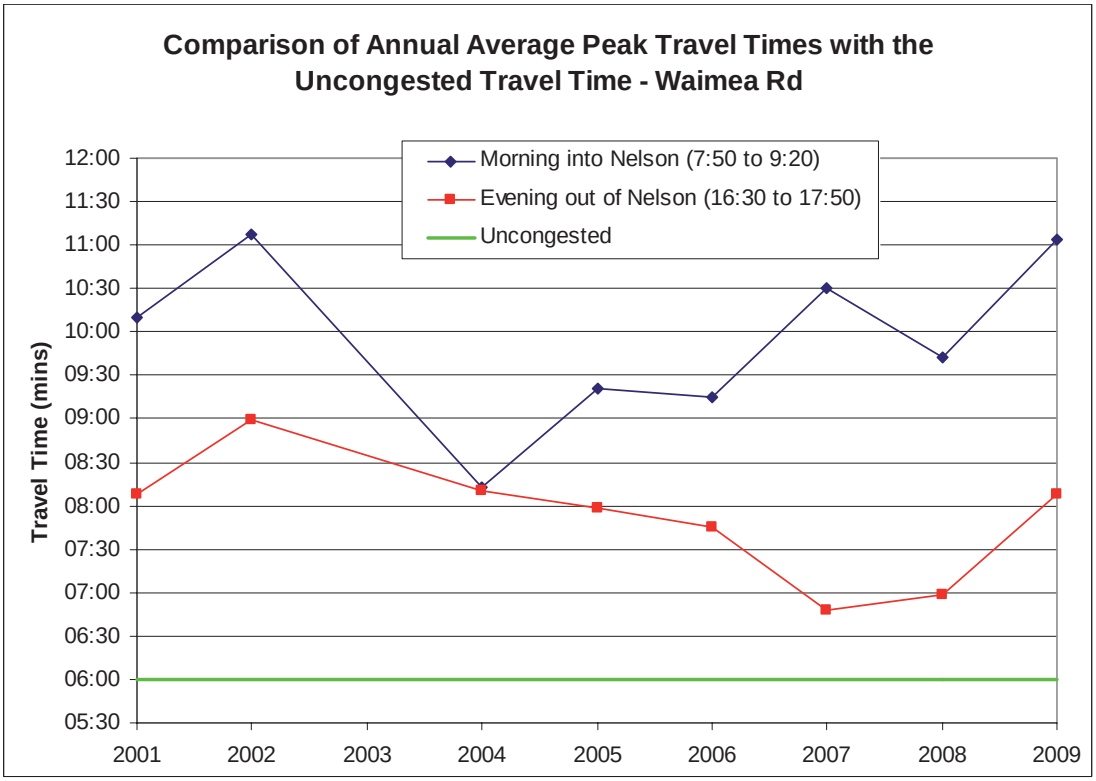


Figure 4.10

Passenger transport

Two main passenger transport services operate in Nelson.

a) SBL Services (SBL) currently provides a private bus service between Richmond and Nelson via two routes. Both travel via Stoke, with one travelling via Tahunanui and the other via Waimea Rd. A Stoke loop service links with some of these services. There are 12 weekday services operating from Richmond to Nelson CBD via Tahunanui, and 13 return services on that route. There are 10 services on weekdays travelling via Waimea Rd to Nelson CBD (and 8 return services). There is a limited service operating on Saturdays and Sundays. The services operate between the hours of 7am and 6pm with headways varying from 30 minutes in the am peak to two hours in the interpeak. SBL also operates private school bus services.
   The 2004 Nelson/Tasman public transport study estimated that these services carry between 150,000 and 200,000 passengers annually.

b) SBL also operate "The Bus", a publicly funded bus service on four routes within Nelson. These routes cover:
   - Atawhai;
   - Hospital/Toi Toi;
   - The Brook/Maitai; and
   - Washington Valley.

These services operate Monday to Saturday, and are essentially designed for the transport disadvantaged. These services carry 35,000 passengers annually. This equates to 160 passenger trips per day.

In addition to these services there are many commercial and subsidised school bus services that run throughout the region and a 'Late Late Bus' that runs between Nelson and Richmond on Friday and Saturday nights.

Walking and cycling

Walking and cycling are relatively popular modes of travel in Nelson; higher than in most other parts of the country.

A combination of off-road and roadside facilities currently provide for both walkers and cyclists, but more investment is proposed to further enhance these networks.

The Nelson City Council Pedestrian Strategy "Stepping Out" (November 2005) and Cycling Strategy "Pedalling Along" (December 2006) further discuss the current situation and the strategy for further investment.

5 Transport issues

Population growth and associated demands for accessability, personal mobility and freight movement could place sections of the transport network under increasing strain unless strategies are developed to address this issue. In urban areas, congestion leads to increased travel times, reduced trip reliability and increased costs for users.

The process of identifying the existing and potential issues affecting the transport network is a prerequisite to the development of appropriate transport solutions and a Strategy. This process has involved the community through consultation, and has been informed with a detailed technical analysis of the available information using a transportation model.

The issues described in this section have been categorised by the five objective areas representing Government transport policy. Most issues relate to more than one objective area.

Economic development

The transport demand within a region is derived from a need to move freight and people. An efficient transport network that permits the efficient and sustainable flow of freight and people is therefore crucial to the economic vitality of a region.

Issue ED1: Inefficient use of the urban arterial road

There is no conclusive evidence to suggest that peak hour travel time delays have increased over the last 5 years. However the Nelson traffic model predicts that travel time on Rocks and Waimea Roads will more than double by 2021 unless strategies are developed to improve the utilisation of the existing network.

Population growth, demographic change and increased household vehicle ownership rates are just a few of the factors that have the potential to place additional demand on the network. The additional congestion, and the associated uncertainties of travel times, places additional costs upon the users of the infrastructure, including commuters, freight operators and tourists.

These costs have the potential to affect the quantum and distribution of investment in the region. It is not possible to quantify this effect directly, since investment decisions are made for a variety of reasons, of which the quality of the transportation network is only one.

Issue ED2: Public transport that does not meet peoples transport needs

There are six regular bus routes in the Nelson region and these are not well used. This is reflected by the fact that the 2006 Census showed that only 0.5% of the working population travel to their place of employment by bus. Council's public transport service "The Bus" is designed specifically for the transport disadvantaged and not targeted at commuters. The low frequency of service on commuter routes contributes to the large number of people travelling by private car, increasing congestion and the associated costs to the road user. The 2007 survey of Nelson residents identified a desire for better, cheaper and more frequent services because greater use of public transport will help relieve traffic congestion.

Issue ED3: Low commuter vehicle occupancy rates

Vehicle occupancy rates on the Nelson urban road network are low and below levels experienced in other NZ urban areas. Only 4.3% of people travelled to work as a passenger in Nelson at the time of the 2006 census. This compares to 5.2% for similar local authorities.

This low rate is partly a reflection of the lack of adequate public transport. This results in an inefficient use of the available roadspace, especially during weekday peak periods. Whilst a car-pooling scheme is in operation, further incentives and disincentives are required to encourage a change in travel behaviour.

Safety and personal security

The increased traffic over the past decade has resulted in an increase in the number of injuries and deaths from motor vehicle crashes; the social cost of crashes in the Nelson region now averages over $30 million a year. To reduce this cost there is a need to reduce the number and severity of crashes. In addition to motor vehicle crashes, there is a need to improve the safety and personal security of those cycling, walking and using public transport.

The safest mode to travel is by Public Transport. Encouraging model shift from motor vehicles to public transport will help to reduce casualty numbers.

The tables that follow give the number of casualties (fatal, serious and minor injury) for the past decade (1998 to 2007). Rural roads are defined as those with a speed limit of 80km/h or more, while urban roads have a speed limit of 70km/h or less.

Table 5.1: Road accident casualties within Nelson region

Year	Casualties on Urban Roads	Casualties on Rural Roads	Total Casualties	Social Cost of Casualties ($M[1])
1998	95	31	126	$29.4
1999	108	19	127	$34.3
2000	75	29	104	$15.9
2001	83	30	113	$30.5
2002	105	45	150	$28.6
2003	94	39	133	$26.1
2004	122	32	154	$35.0
2005	129	30	159	$30.8
2006	138	26	164	$37.4
2007	122	31	153	$29.8
Average				
1998-2002	93	31	124	$27.8
2003-2007	121	32	153	$31.8

Table 5.1 indicates that the social cost of road crashes has fluctuated over the past decade. This is primarily due to variation in the number of fatalities (comprising 18% of the average cost), and serious injuries (comprising 51% of the average cost).

The breakdown of casualties occurring on State Highways, control of which is the responsibility of the New Zealand Transport Agency, is given in the table below.

Table 5.2: Road Accident Casualties on State Highways within Nelson Region

Year	Casualties on Urban Roads	Casualties on Rural Roads	Total Casualties	Social Cost of Casualties ($M9)
1998	6	21	27	$6.8
1999	14	17	31	$14.6
2000	13	18	31	$3.2
2001	10	28	38	$14.0
2002	16	43	59	$14.8
2003	11	36	47	$13.7
2004	16	30	46	$12.1
2005	8	23	31	$7.9
2006	19	19	38	$16.4
2007	14	20	34	$6.4
Average				
1998-2002	12	25	37	$10.7
2003-2007	14	26	39	$11.3

Note that following the completion of the Stoke Bypass, the portion of State Highway 6 along Main Road Stoke, which had been designated as SH6C from January 2000, was revoked in February 2004.

Issue S1: Trauma resulting from road crashes is unacceptable

The past ten years has seen an overall increase in the total number of casualties due to the increase in traffic volumes. These must be reduced through a combined programme of engineering, enforcement and education. Without a co-ordinated comprehensive approach the number of people killed or hospitalised from road accidents in the region could increase further.

Common crash types, and those that appear over-represented in Nelson, have been identified from reported crash data and trends for the 2003-2007 period. These are:

- a high number of crossing/turning crashes, in particular:
  i) Waimea Road/Motueka Street (7 crashes in 2007)
  ii) Haven Road/Halifax Street (3 crashes in 2007)
  iii) Main Road Stoke/Waimea Road (3 crashes in 2007)
  iv) Halifax Street/Paru Paru Road (3 crashes in 2007)
- a high number of rear end/obstruction crashes
  The largest proportion of these crashes (38%) occurred on the two North-South routes through Nelson, namely State Highway 6 and Rutherford/Waimea Road/Main Road Stoke.
- a high number of loss of control crashes on bends.
  The main characteristics of these crashes are:
  - single vehicle (73%)
  - excessive speed for the conditions (48%)
  - night time (46%)
  - alcohol (28%)
- a high number of alcohol related crashes
  In 2007 alcohol was a factor in 18% of all injury crashes which is higher than the national average and higher than the last five year country average of 12%/ Alcohol related crashes mostly occurred at night on both local and State Highways. Very few at fault drivers, especially on local roads, involved in alcohol related injury crashes were full NZ driver license holders.
- a high number of motorcycle crashes
  The trend in both serious and minor injuries is upwards. Young motorcyclists of 15 to 24 years of age are the most commonly injured group (49%) which is higher than the national average and similar authorities averages.

Issue S2: High casualty rate amongst pedestrians and cyclists

In urban areas, crashes involving pedestrians and cyclists are over-represented. While this is, in part, due to more walking and cycling trips in this region, the provision of improved facilities could reduce this crash rate.

Table 5.3: Pedestrian and cyclist casualties

YEAR	Pedestrian Casualties on Urban Roads	Cyclist Casualties on Urban Roads	Urban Pedestrian and Cycle Casualties as a percentage of all Urban Casualties.
1998	21	14	37%
1999	22	34	52%
2000	22	14	48%
2001	16	21	45%
2002	19	27	44%
2003	13	17	32%
2004	23	25	39%
2005	18	20	29%
2006	10	40	36%
2007	6	21	22%
Average			
1997-2001	20	22	45%
2002-2006	14	25	32%

The above table shows that for the past ten years within the urban areas in Nelson, 38 percent of all casualties in crashes in urban areas involve pedestrians and cyclists. Generally more cyclists than pedestrians are injured.

The table reveals that the percent of casualties involving vulnerable road users is generally constant although the last year shows a slight decrease. There are a number of intersections within Nelson where a high proportion of injury crashes involve pedestrians and cyclists, which will need to be investigated further. Further information can be found in the NCC Pedestrian Strategy (Stepping Out), Cycle Strategy (Pedalling Along) and the Road Safety Action Plan.

Issue S3: Personal Safety and Security

Real and perceived threats to personal security can affect the use of certain modes. While there are no current monitoring programmes in place to determine the extent to which this is occurring, the increased emphasis this strategy places on non-roading modes enforces the need to provide safe facilities for pedestrians, cyclists and public transport users.

Access and mobility

Accessibility relates to the ability of people to access jobs, education, services and recreational facilities via the transport network and is critical to promoting community well-being and the economic development of the region.

Heavily trafficked arterial and principal roads create barriers and severance within communities as they are difficult for pedestrians and cyclists to cross. They are less safe and/or pleasant environments for pedestrians and cyclists. High volumes of traffic and increased vehicle speeds on local roads also restrict people's ability to interact in public spaces, increasing isolation.

Issue AM1: Accessibility for non-car owning households, elderly and mobility impaired

While average rates of vehicle ownership in the region are relatively high, there are 7.7 percent or 1 in 13 households without a vehicle. This might be due to personal choice in a

small number of cases but the minimal level of public transport provision means that these households are limited in their ability to participate in social and economic activities in the region.

The provision of convenient wheelchair accessible public transport services would improve accessibility for those without a private vehicle in the urban areas, the mobility inpaired, and provide an incentive for existing car users to make less use of their vehicles.

Nelson City Council provides a community bus service for the transport disadvantaged. A Total Mobility subsidised taxi service is in place and is well patronised. A continued and improved service for the region is important for accessibility.

There is an increasing proportion of elderly so providing accessibility and transport suitable for the elderly is essential. In terms of pedestrian movements, paths that are uneven, obstructed or poorly maintained create a barrier for the elderly, the mobility impaired and parents with pushchairs.

Issue AM2: Accessibility for pedestrians across heavily trafficked arterial and principle roads

Pedestrian and cycle movement across arterial and principal roads is restricted by high traffic volumes and speed. Crossing these roads is an issue particularly for the elderly and children. The wider these roads are, and the faster the traffic speeds, the more difficult they become to cross safely.

These roads disconnect neighbourhoods, place a barrier between people, places and services and restrict people's mobility. They also reduce the viability of local shopping areas.

Issue AM3: Low amenity on local roads reduces the cohesion of local neighbourhoods

Vehicle speed, wide roads and a lack of street trees on local roads create car-dominated environments that impact on the amenity and use of local streets for pedestrians. Low quality, poorly lit streetscapes can become an impediment to people wanting to walk whether for recreational purposes or to get to places. It detracts from the sense of community in a neighbourhood and reduces opportunity for interaction and connection between people.

To encourage walking as a desirable/alternative mode of transport it is necessary to recognise the place-function of local roads and provide a pleasant, walkable environment where people feel safe.

Protection and promotion of public health

Regular physical activity significantly reduces the risk of major health problems. The New Zealand Health Strategy sets out a number of goals that are related to transport, including a focus on healthy physical environments, improved access to public transport and the promotion of physical activity.

The negative health impacts of transport include emissions, contaminants, noise and accidents, affecting both physical and mental well-being. Recent research[4] indicates that the 'invisible' death toll from road vehicle emissions through respiratory disease exceeds the 'visible' death toll from motor vehicle accidents. For the population aged 30 or over, the total air pollution mortality for (urban) Nelson is assessed as 14.4 deaths per annum of which about 4.3 deaths per annum are associated with vehicle emissions (PM10 and CO). This compares with only one reported motor vehicle crash fatality on an urban road in Nelson in the last three years.

Substantial health benefits will be achieved if even a small proportion of the under 2km trips currently made by car are made by active transport modes such as walking or cycling.

Issue PH1: High use of private motor vehicles for short distance trips

Nationally, 19% of private vehicle driver 'round trips' are under 4km (average distance of under 2km each way) and 46% are under 10km[5]. There is no reason to believe that the pattern in Nelson differs significantly from this. Nationally, 83% of walking 'round trips' are less than 4km and 98% are less than 10km; nearly half (48%) of all cycling round trips are less than 4km while 82% are under 10km.

Many of the short distance vehicle trips could be switched to walking or cycling with a significant improvement in levels of physical activity and general health and a consequent reduction in vehicle emissions.

4 Health and Air Pollution in New Zealand, 2007, Tables 9-3 and 9-4.

5 Dr Charles Sullivan and Dr Carolyn O'Fallon, Understanding the Nature of "Short Trips" in the New Zealand context, September 2004 working paper for the Towards Sustainable Land Transport Conference, Wellington, November 2004. Based on the "chaining" the trip legs recorded in the Land Transport Safety Authority 1997/98 National Household Travel Survey.

Issue PH2: Poor air quality in sensitive environments

Air quality monitoring at St. Vincent Street from 2001-2007 shows that there are, on average 58 days each winter that do not meet the requirements of the national environmental standard for air quality with respect to PM10 that needs to be met by 2013. An Emissions Inventory for 2006 carried out for the Nelson City Council shows that 88% of winter air particulate pollution in Nelson is caused by domestic heating and that 7% is caused by motor vehicles. Nelson City Council is addressing the domestic heating source of air pollution. The inventory showed that particulate emissions from motor vehicles increased by 21% from 2001 to 2006. Although the vehicle fleet has become cleaner an increase in vehicle kilometres travelled has offset this. Another issue is that in areas of high traffic volumes or congestion, some air pollutants, such as nitrogen oxides, and carbon monoxide, may increase and cause adverse health effects. National environmental standards have been set for such pollutants. If traffic volumes increase then increases in vehicle emissions would make it more difficult for Nelson to meet the national air quality standard.

Environmental sustainability

Increased vehicle use has consequences in terms of environmental impacts and sustainability. A heavy reliance on the road network means that these impacts include noise, visual intrusion, air and water pollution, and community severance. Inefficient use of private motor vehicles results in an unsustainable reliance on non-renewable fuels.

Issue ES1: Greenhouse gas emissions

The Government has set a target of halving domestic greenhouse gas transport emissions per capita by 2040. Nelson City Council has carried out an inventory of Nelson's greenhouse gas emissions. This shows that in 2001 that 27% of Nelson's greenhouse gas emissions came from the transport sector. This is forecast to increase to 31% by 2010 based on increased traffic projections from the Ministry of Transport. The Nelson City Council draft Communities for Climate Protection Local Action Plan has a target of reducing Nelson's greenhouse gas emissions on 2001 levels by 40% in 2020. If the local and national targets are to be met, emissions associated with motor vehicle traffic will need to be reduced.

Issue ES2: Land use planning impacts on transportation network

The Nelson Urban Growth Strategy concluded that Nelson will continue to see population increase and more demand for housing, commercial activities and community facilities. Failure to integrate planning for this growth with transport planning can lead to increased traffic congestion by allowing 'greenfield' residential development away from the existing urban areas, and by not co-locating residential, commercial and community facilities to reduce the number of trips. Future development

needs to be more intensive and provide for all modes of transport to encourage more walking and cycling trips, and the use of public transport.

Issues ES3: Inefficient use of private cars

The convenience, flexibility and relatively low costs associated with operating private motor vehicles gives rise to their use for many trips that could be made by other modes.

Many individual trips are also made that could be more efficiently combined, or made using public transport if a reasonable service was made available. However, in the 2006 census, only 0.5% of journeys to work were made by the public bus network.

If some car trips were replaced by walking and cycling or public transport, immediate benefits would be realised including through reduced air pollution, noise and community severance, and improved health standards through exercise.

Affordability

All projects and measures that are progressed in the region need to provide justification of their benefits, whether they are based on economic, safety, accessibility, health or environmental factors. Projects that make better use of existing infrastructure can defer, or reduce the need altogether, for new infrastructure, resulting in savings.

Issue A1: Funding Availability

There is limited funding available from both local and central government to progress transportation projects. Furthermore, this strategy proposes significant additional focus on Public Transport and Travel Demand Management, where limited funds are currently spent. This constraint on funding means that some of the projects and measures that could contribute to achieving the vision and objectives of this strategy may not be able to be progressed. Accordingly, the projects and measures need to be prioritised to ensure that those activities that provide the most benefits - and contribute the most towards the RLTS targets - are funded.

6 Vision and targets

Vision

The vision for the Nelson land transport network is

'a sustainable transport future for Nelson'

Targets

The measures described in the Policies and Implementations below (see Section 7) are the means of achieving this vision for the future land transport network in the region.

In order to be able to monitor progress towards the achievement of the vision, there must be articulated, quantifiable measures, or targets.

The targets described in this section relate closely to the issues identified in Section 5. They also form an integral part of the proposed monitoring strategy so progress towards addressing the issues and achieving the vision can be reviewed on an annual basis. Some targets naturally relate to more than one objective.

Economic development targets

Target ED1	Reduce average peak hour travel delays by 10% by 2018 from values recorded in 2008
Target ED2	Increase share of weekday journey to work trips by public transport to at least 10% by 2018
Target ED3	Increase number of vehicles with more than one occupant in the peak period across the Waimea Rd / Rocks Rd screenline to at least 10% by 2018

Safety & personal security targets

Target S1	Reduce the total number of reported injury casualties by at least 20% by 2018 compared to 2008
Target S2	Reduce the number of injury pedestrian and cyclist casualties by 20% by at least 2018 compared to 2008
Target S3	Assess perceptions of personal safety and security in the NCC annual survey.*

* The New Transport Strategy states "Personal security is difficult to develop targets for, and to measure. A number of regions, such as Greater Wellington, carry out surveys assessing perceptions of safety. Statistics New Zealand is investigating the inclusion of questions about perceptions of safety in their annual social survey. These will focus on walking alone and public transport. The release of the first report is scheduled for October 2009. This type of information could be used to develop targets in future".

Accessibility & mobility targets

Target AM1	80% of households are within 400 metres (five minute walk) of a bus route by 2012
Target AM2	Develop programme of area specific studies into the barriers to walking and cycling by 2010, initially focussing on the heavily trafficked arterial and principal roads
Target AM3	Develop local road upgrade design methodology to improve streestscapes, by 2010

Public health targets

Target PH1	Increase share of week day journey to work trips undertaken by walking and cycling to at least 25% by 2018
Target PH2	Reduce emissions to air from the transport sector by 2018 from values recorded in 2006

Environmental sustainability targets

Target ES1	Reduce Nelson's greenhouse gas emissions from the transportation sector 2001 levels by at least 40% in 2020
Target ES2	Every land use change application will be reviewed to determine its consistency with the targets in this strategy*
Target ES3	All subdivisions and developments to include provision for walking, cycling and provision for public transport

Affordability target

Target A1	A 75% customer satisfaction rating for value for money in the Transport sector is achieved by 2014, as assessed by the NCC annual survey

* This target provides direction to the Resource Management Plan, where more specific targets can be expected.

7 Policies and implementation

The policies are organised into five sections. Each policy is backed up by a number of activities to help realise the targets in the previous section.

The sections to which the policies are divided into are:

- Travel Demand Management
- Walking
- Cycling
- Public Transport
- Roads and Traffic Management

Achievement of the Strategy is reliant on actions being made by a range of agencies involved in transport.

Travel demand management

Travel Demand Management forms a core element of this Strategy as means of reducing growth in the number of private vehicle trips.

'Travel Demand Management' refers to a range of methods that influence why, how, when and where people travel. Methods include:

- influences upon travel behaviour (e.g. education, promotion, marketing and road pricing)
- parking charges
- land use planning.

A key role of travel demand management is to maximise the efficiency of the transport system by removing the most uneconomic and unsustainable activities or shifting them to times when there is less demand on the system. This ensures that the more essential trips are able to be made efficiently, thereby contributing to the economic development of the region.

Travel Demand Management has the potential to ease congestion problems in the short-term at relatively low levels of expenditure. It can also defer or avoid altogether the need for some infrastructural improvements, resulting in savings and environmental benefits. The success of Travel Demand Management measures are reliant on the willingness of residents to change their patterns of travel and on the political will to use economic and statutory tools to drive behavioural changes. For this reason, this Strategy couples these measures with improvements to the bus service and a defined monitoring regime. Generally TDM measures will be implemented to coincide with the implementation of the enhanced bus service. This will allow the success of the measures to be identified as a pre-cursor to any programming of road capacity upgrades.

Influencing travel behaviour

TDM Policy 1	Undertake travel behaviour change programmes, educational and promotional measures to reduce the use of private motor vehicles, especially in areas of traffic congestion

Activity	Commencement of activity	Objective				
		ED	S	AM	PH	ES
Introduce school / college travel plans	Short term	•	•		•	•
Introduce business travel plans (for businesses with >50 employees)	Short term	•		• •	•	•
Investigate viability of improving infrastructure which would encourage tele-working	Short term	•				•
Expand car-pooling /parking priority scheme	Short term	•				•
Promote alternative forms of travel through media publicity campaigns, promotional events and information packs	to coincide with other PT and TDM initiatives	•		• •	•	•
Commission an investigation of the available road pricing technologies, their application to Nelson and potential impacts	Long term	•				•
Implement other Travel Demand Management Strategy activities	Refer to Plan in Appendix B	•		•	•	•

'Road-pricing' refers to a number of available tools, including cordon charges, permit schemes and tolls. Currently, road-user pricing applies through the application of Road User Charges and taxes on fuel. However, this is a crude form of charging which does not reflect the roads which are used or the timing of trips.

In the longer term, road-pricing offers a more equitable means of allocating the use of road-space, which would allow charges to reflect the demand for the use of the network, in a manner similar to charging for flights, or for telephone use. In this way, the intensity of peak period demands can be reduced, resulting in a more efficient use of the available resources.

Road-pricing offers potential as a means of constraining growth in travel demands. Road-pricing approaches are in their infancy in New

Zealand, but with the availability of the necessary technology their use in the long-term is inevitable. This Strategy acknowledges that application in the Nelson region would not occur until well into the future.

Parking management

The convenience and cost of parking are factors in the decisions people make when choosing their travel mode. The vitality of the Nelson urban centre should be maintained through the provision of high standard parking facilities for shopper and tourist trips and the use of long-stay parking by commuters should be discouraged through the application of charges and controls.

TDM Policy 2	Use parking controls as a disincentive for long stay commuter parking in central areas.

Activity	**Timing**	**Objective**				
		ED	**S**	**AM**	**PH**	**ES**
Develop parking policy to deter long-stay commuter parking in central areas	Short term	•				•
Review Nelson Resource Management Plan provisions to be consistent with the Central City Strategy	Short term	•				•

Land-use planning

The location of employment, shopping and recreational activities relative to housing areas affect the demand for travel. Also, the quality and cost of travel influences decisions for these activities. The integration of land-use with transport provision will significantly affect the overall levels of demand on the transportation network.

The following policy seeks to both reduce the overall volume of travel required and promote the use of alternatives to private motor vehicles. In this way, existing infrastructure can be maintained with benefits in terms of costs, safety and environmental amenity. This policy might take many years before achieving the desired outcomes but remains an important and integral component of addressing the growth in transport demand.

TDM Policy 3	Promote the location of housing, jobs, shopping, leisure, education and community facilities and services to reduce the demand for travel and encourage the use of transport modes other than private motor vehicles

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Review Nelson Resource Management Plan rules with regard to the locational requirements for new developments and activities; promote the co-location of urban developments which reduce the overall demand for travel and which are conveniently located to bus, walking and cycling networks through intensification and mixed use developments and deter developments which adversely impact on the efficiency of transport routes	Short term	•		•	•	•
Revise Nelson Resource Management Plan to ensure that subdivision designs provide for safe and convenient bus services appropriate wheelchair/ mobility scooter standards, and convenient walking / cycling networks	Short term	•	•	•	•	•

Walking

Walking is a fundamental part of life that is widely recognised for the health and environmental benefits it provides while enabling convenient access to many destinations. It is an essential part of any sustainable land transport system, providing an ideal means of travel for many shorter trips.

Nelson already benefits from one of the highest rates of walking trips in New Zealand. A core component of the Strategy is to both maintain and enhance this level through supporting the measures identified in Council's pedestrian strategy "Stepping Out".

The Strategy recognises the importance of walking and promotes a pedestrian-friendly built environment. Within the context of the RLTS, walking includes those using walking aids such as wheelchairs and mobility scooters and those with specific requirements such as parents with unwieldy pushchairs. A pedestrian friendly environment can be achieved through the creation of inclusive and attractive places where people choose to walk for long or short distance journeys.

Guiding Principles for Walking

Walking should be:

- a vibrant, healthy and fundamental part of life
- an integral part of the land transport system
- safe, pleasant and convenient
- facilitated by appropriate connections that are well sign-posted, safe and convenient to use.

Walking Policy	Increase walking and the convenience and safety of walking in Nelson

Activity	**Timing**	**Objective**				
		ED	S	AM	PH	ES
Review the Nelson Resource Management Plan to ensure that provision is made for convenient pedestrian routes in new residential sub-divisions	Short Term		•	•	•	•
Make maps showing walking routes available and promote with publicity campaigns	Short Term			•	•	•
Improve local road streetscape design to provide for mixed use to make streets more people-friendly, sustainable, healthy and reduce severance for local communities	Short Term		•	•	•	•
Investigate improving walking facilities along Rocks Road taking into consideration the historic and heritage values along this route	Short Term	•	•	•	•	•
Carry out area specific studies to remove barriers to walking and cycling	Short Term	•	•	•	•	•
Implement the other measures within the NCC pedestrian strategy "Stepping Out"	Short Term	•	•	•	•	•

Cycling

Cycling is widely recognised as a healthy, enjoyable and environmentally sustainable way to travel, and it offers a convenient and efficient option for short-medium distance trips. The environmental impacts of cycling are very low, trips can often be made door-to-door and it is an affordable form of transport.

Nelson already benefits from one of the highest rates of cycle trips in New Zealand. A core component of the Strategy is to both maintain and enhance this level of cycle trips.

Nelson City Council has adopted its third cycling strategy, "Pedaling Along" and is represented at the Active Transport Forum and Bicycle Advisory Group (BAG) regular meetings. It also has mechanisms in place for reporting cycling crashes and issues, recognising the extent of under-reporting to Police of incidents involving injuries.

Guiding principles for cycling

Cycling should be:

- an integral part of the land transport system
- facilitated by appropriate connections which are well sign-posted, safe and convenient to use
- safe, pleasurable and convenient
- integrated with the passenger transport network by the provision of cycle parking facilities.

Cycling Policy	Increase cycling and cycling safety in Nelson

Activity	**Timing**	**Objective**				
		ED	S	AM	PH	ES
Review Nelson Resource Management Plan to ensure that provision is made for convenient and safe cycle routes within all residential sub-divisions	Short Term		•		•	•
Make maps showing cycling routes available and promote with publicity campaigns	Short Term				•	•
Seal the cycleway along the 'railway reserve' from Beatson Rd to St Vincent Street	Short Term		•		•	•
Investigate provision for an off-road cycleway from Marybank to the north	Short Term		•		•	•
Provide cycle-lanes along St Vincent Street	Short Term		•		•	•
Provide cycle-lanes along SH6 Tahunanui Drive and Annesbrook Drive	Short Term		•		•	•
Investigate improving cycling facilities along Rocks Road taking into consideration the historic and heritage values along this route	Short Term		•		•	•
Implement other NCC cycle strategy activities	Short Term	•	•	•	•	•

Public transport

The Nelson to Brightwater Corridor Study has considered the possibility of rail based solutions but high costs and relatively low population size and densities found this option not viable. Public transportation solutions in the Strategy therefore relate to bus-based solutions.

Current rates of bus use are low. This is partly due to the low number and frequency of services, which mean that bus services have never achieved the 'critical mass' to be considered a practical alternative to private motor vehicles.

There is potential to provide substantially upgraded bus services that increase the level of service to that associated with light rail, but at a much reduced cost more consistent with the local context. Greatly increased service frequencies and vehicles / facilities that are comfortable and reliable can change the perception of bus travel and lead to a modal shift away from private motor vehicles.

Bus services also provide a social function by improving the ability of those who do not to own, or are unable to drive, a private motor vehicle to access the services they need.

PT Policy	Increase public transport use in Nelson

Activity	**Timing**	**Objective**				
		ED	**S**	**AM**	**PH**	**ES**
Introduce bus priority at key intersections and routes	Short Term	•			•	•
Review bus service provision, and need for new services to access new residential and commercial areas	Ongoing	•		•	•	•
Implement other Passenger Transport activities which includes routes, frequencies, facilities and levels of service etc	Refer to Network Plan	•		•	•	•

Roads and traffic management

Travel by private motor vehicle is the dominant mode of transport in the Nelson area. The level of service provided by the road network both in terms of safety and efficiency is pivotal to the performance of the regional transport network as a whole.

The strategic road network provides a framework of key routes for longer distance travel and access to major destinations such as the port, airport and urban centres, in addition to linkage between this region and surrounding regions. Non-strategic local roads support the strategic network by providing local access.

The road network needs to provide for all road users, not just motorists. This includes the provision of road spaces and related infrastructure to allow for safe, convenient and pleasant travel by

walking, cycling or public passenger transport and access for emergency and commercial vehicles.

The way in which roads are constructed, managed and used has consequences for safety and personal security. The development and use of roads also impacts upon the physical environment and can have both positive and negative social implications. Therefore, the impacts of road infrastructure must also be carefully considered as the network develops.

The environmental effects from transport include adverse effects on other users, adjacent properties, community cohesion and the production of global pollutants such as carbon dioxide. The Strategy seeks to improve environmental assessments, monitoring of the effects and outlines actions to reduce adverse effects.

Road safety strategy and education

Road crashes impose a high social and economic cost on the country. In 2006, 1 person was killed and 137 people were injured in road crashes in Nelson, with an estimated total social cost of $33.7M. It is recognised that education and enforcement can contribute to reducing cost.

Roads and traffic management Policy 1	Reduce the number and severity of road crashes in Nelson

Activity	**Timing**	**Objective**				
		ED	**S**	**AM**	**PH**	**ES**
Continuously update, implement and advocate for enforcement in the Nelson Road Safety Action Plan	Ongoing		•			
Consider road safety in consent decisions	Ongoing		•			
Undertake education and advertising campaigns to highlight issues for pedestrians and cyclists	Ongoing		•			
Ensure that safety is an integral part of all roading improvements, especially for pedestrians and cyclists	Ongoing		•			
Review suburban street speed limits in conjunction with changes to the speed environment	Ongoing		•			

Environmental impacts

While the motor vehicle offers significant benefits, they are also a major contributor to adverse environmental impacts such as noise, air pollution, visual impacts and severance.

Other modes, such as cycling, walking and passenger transport can have positive environmental impacts.

Roads and traffic management Policy 2	Monitor the adverse environmental impacts of motorised transport to ensure national and regional standards are met

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Implement Transport aspects of the Air Quality Plan and Communities for Climate Protection Action Plan	Short Term				•	•
Consider land-use controls that minimise adverse environmental impacts	Short Term	•		•	•	•

Nelson road network

The efficient operation of the Nelson road network is important to the economic vitality of the region as a whole. Not only does the network provide access to the port, airport and a significant number of commercial, retail and recreational activities, but it also carries inter-regional traffic to/from adjacent regions.

State Highway 6 is the current major freight route to the port and airport.

It is acknowledged that if there is a need for additional roading capacity or an alternative transport route then this could be the corridor along the railway reserve, linking to the Annesbrook Drive roundabout. It is important that Council and the NZTA retain ownership of this corridor, and any other land associated with the corridor for any future transport needs.

Roads and traffic management Policy 3	Ensure the efficiency of the transport network by providing appropriately timed traffic management and road maintenance and improvements, taking into account the other RLTS policies that constrain private vehicle use and encourage increased use of alternative modes of transport.

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Operate, maintain and renew the road network in accordance with the Transport Asset Management Plan	Short term	•	•	•		•
Implement road improvements once they have been identified in the Regional Land Transport Programme	Short term	•	•	•	•	•

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Annually monitor/review the need for any new or additional roading capacity.	Short term	•				
Support the NZTA in prioritising the Whangamoa upgrade.	Short term	•	•		•	•

8 Funding the Regional Land Transport Programme

Funding

Available funding levels have been taken into account during preparation of this strategy. However, it is acknowledged that the scope, timing and costs of projects change over time. These changes will be accounted for in Nelson City Council's Annual Plan and the New Zealand Transport Agency's State Highway Forecast and will be reported to the Regional Transport Committee regularly.

There are principally two types of funding currently available to the region:

- Nationally distributed (N) funds are allocated on the basis of national priority by from the National Land Transport Fund in accordance with its allocation process. Funding is mainly derived from road user charges, fuel excise and motor vehicle registrations. Nelson region's share of 'N' funding will vary from year to year. 'N' funding includes all passenger transport funding plus state highway and local road development funding.
- Regionally distributed funds (R) are allocated by the New Zealand Transport Agency to activities that are not judged to be of sufficient national priority to be fully funded from 'N' funding. "R" Funding, derived from road user charges and fuel excise, has an estimated value of $21M for Nelson. The Government has indicated that these charges will cease to contribute to the fund after 2015, but that any remaining "R" Funds may still be spent after this time.

Regional Land Transport Programme

The Regional Transport Committee will develop, prioritise and consult on the Regional Land Transport Programme in the first half of 2009.

9 Monitoring

The Strategy identifies the changes and measures that are necessary in order to realise the vision for the future land transport system in the region.

Changes in the performance of the land transport system over time can arise from a multitude of inter-related factors, some of which cannot be reasonably anticipated. For example, a period of increasing fuel prices is currently being experienced and the severity, duration and impacts of this cannot be reliably forecast.

The Strategy is intended to be a "living document", subject to periodic review and revision. Whilst the main elements and direction of the Strategy are considered to be reasonably robust in the context of change, some adjustments in the emphasis of the Strategy and the timing of individual project components may be appropriate.

A consistent monitoring framework is therefore an essential means of assessing change in the external variables which determine levels of travel demand.

The quantifiable targets which are presented in Section 4 are intended to encapsulate the vision for the future land transport network. On-going measurement and monitoring of a number of indicators which represent these targets will enable an assessment to be made of progress achieved towards the vision.

The achievement of the targets is reliant upon actions by all of the agencies involved in the transportation sector. Monitoring is also required of the performance of each of the agencies in the completion of these tasks. Where tasks are not completed to the intended programme, the reasons for this need to be identified to allow appropriate action to be taken.

Finally, the preparation of an annual monitoring report which reviews progress achieved towards the Strategy targets is a legislative requirement under the Land Transport Act. The report must be available within three months of the end of the financial year to which it relates. For Nelson, the financial year ends on June 30th, and hence the Annual Monitoring Report will be required to be published by the end of September in each year.

Monitoring Indicators

The following indicators describe the data which needs to be collected and/or analysed in order to track how the activities in Section 5 are contributing toward the overall vision and objectives.

Economic development indicators

Target ED1	Average recorded travel time and travel time variability for weekday AM peak (7.30-9.30am), Inter-peak (10am-2pm) PM peak (4.30-6pm) on routes between the Haven Road roundabout and the Whakatu Drive/Richmond Deviation/ Main Road Stoke roundabouts via the Rocks Road and Waimea Road routes (Annual, Source: survey)
Target ED2	Share of weekday journey to work trips by public transport in the Nelson urban area (5-Year, Source: census and 1-year, Source: Local telephone survey)
Target ED3	Average weekday AM peak (7.30-9.30am) and PM peak (4.30-6pm) vehicle occupancy rates across the Rocks Rd / Waimea Rd screenline (Annual, Source: survey)

Safety & personal security indicators

Target S1	Total injury casualties per calendar year in Nelson region (Annual, Source: New Zealand Transport Agency)
Target S2	Annual number of pedestrian and cycle casualties (Annual, Source: New Zealand Transport Agency)
Target S3	Annual Survey

Accessibility & mobility indicators

Target AM1	Carry out assessment in 2012
Target AM2	Programme completed by 2010
Target AM3	Methodology completed by 2010

Public health indicators

Target PH1	Share of weekday journey to work trips by walking and cycling in Nelson urban area (5-Year, Source: census: and 1-year, Source: Local telephone survey)
Target PH2	Level of emissions at monitoring stations and as calculated by 5-year emissions inventory (Annual, source: NCC, national vehicle emissions data)

Environmental sustainability indicators

Target ES1	Greenhouse gas emissions (Annual, Source: NCC, national vehicle emissions data)
Target ES2	Number of land use change applications assessed (Annual, Source: NCC)
Target ES3	Number of resource consents for subdivisions and developments assessed

Economic efficiency indicator

Target A1	Annual Survey

Appendix A

Passenger Transport Network Plan

Contents

1. Introduction

Purpose

The purpose of this Passenger Transport Network Plan (PTNP) is to provide an overarching framework for the development of the Nelson region's passenger transport network for the 2009 to 2019 period. The Passenger Transport Network Plan is necessary to outline the passenger transport services provided in the region both generally and in respect of persons who are transport disadvantaged.

The mode of passenger transport that has the greatest potential to cater for high volume movements of people in the Nelson region is the bus. Therefore the main focus of this plan is the development of the bus network. Other modes and means of travel that have an interaction include inter-regional coach services, total mobility services, taxi and shuttle services and pleasure craft services (i.e. tourist boat trips) providing transport and tours primarily for visitors. While consideration of these modes has been taken into account in the preparation of this plan, the purpose of this plan is to focus upon scheduled passenger transport aimed at the general public rather than a particular group or market.

Summary of Current Bus Service Provision

The corridor bus service between Nelson and Richmond operates Monday to Sunday on a limited frequency with gaps of up to two hours during the off peak. The vehicles are relatively old, have high steps and predate modern exhaust emission standards. The commercial bus operator would like to improve the service however further investment in the service in terms of service frequency or vehicle quality is not commercially viable. The level of service in terms of both service frequency and service quality, for a population of 43,000 people residing in mainly urban and suburban areas is very low. Consequently, the corresponding number of people currently travelling to work by bus is low at 0.5% of journey to work trips. Although this level of bus usage is comparable with similar regions such as Hawkes Bay and Bay of Plenty (both 0.5% of journey to work trips) it is low compared with other regions such as Canterbury and Otago (being 2.4% and 2.0% respectively). While the New Zealand average of journey to work trips by bus is 3%, this is somewhat skewed by larger figures for Auckland and Wellington.

The same operator SBL Services also operates four publicly funded bus routes, branded 'The Bus' which provide a basic level of provision for Atawhai, Toi Toi, The Brook/Maitai and Washington Valley. These routes operate Monday to Saturday with gaps of up to two hours in the off peak with the last bus operating around 4pm or for some routes 5.30pm. On Friday and Saturday evenings a publicly funded bus route operates between Nelson and Richmond, catering for night club goers. This is provided as part of Council's commitment to promoting road safety and social wellbeing. To cater primarily for visitors a double deck bus route operates Wednesday to Sundays (daily in the summer) taking a circular

tour of Nelson, twice a day. In addition there are a number of school bus services operating throughout the region.

Challenges and Opportunities

This Passenger Transport Network Plan has been developed consistent with the findings of the North Nelson to Brightwater Corridor Study, third stage consultation. The Regional Land Transport Strategy 2009 sets out a preferred package which includes the need to improve passenger transport to put the region on track to achieving a sustainable transport network. The factors that influence an individuals choice of transport can be numerous, however in a climate of rising fuel costs this challenge is beginning to become an opportunity. The trend of higher fuel costs means that passenger transport is increasingly becoming more attractive in terms of user cost. Consequently, there is great potential for people to mitigate higher fuel costs by reducing their car use and making more use of passenger transport and active modes (cycling and walking).

Achieving similar door to door travel times by passenger transport compared with travelling by car is a challenge. However, passenger transport is an attractive transport mode where the user cost is lower than car use and where the service is reliable and convenient. The importance of these attributes were highlighted in a Nelson Passenger Transport Network Review undertaken by Parsons Brinckerhoff in late 2007/early 2008. Many of New Zealand's larger cities have tackled these challenges and implemented successful passenger transport networks that are attracting increasing numbers of users both in the peak and off peak times of day. These successful passenger transport networks are not limited to the big three cities of Christchurch, Wellington and Auckland but include cities such as Hamilton and Dunedin which have populations of over 100,000.

To date none of the smaller cities in New Zealand with a population less than 100,000 have implemented a passenger transport network that offers a truly attractive transport mode choice and achieved a double digit (i.e. 10%+) journey to work modal share. The proposals contained in this Passenger Transport Network Plan if implemented would set Nelson City Council on track for becoming the first smaller city in New Zealand to deliver a successful passenger transport network, placing Nelson on a national footing in terms of sustainable transport accolade.

This Passenger Transport Network Plan sets out a blueprint for delivering phased improvements to the quality and quantity of passenger transport and identifies opportunities for leadership and innovation. The opportunity to move forward with developing Nelson's passenger transport network is underpinned by a number of local demand and supply side factors which show that the fundamental conditions / ingredients for establishing an effective bus network are already in place:

Land use patterns - the distances between major destinations are relatively short. The location of most major industry, retail, education,

recreation, healthcare facilities are within a radius of less than 15 kilometres. The compactness of the region is further emphasised by close proximity of the main urban and suburban residential areas in a mainly linear form north south of the city centre, on both flat and elevated land.

Demographics Nelson and Richmond population is forecast to grow by 16% between 2006 and 2016, an additional 9,000 people. The population is getting older and there are more people aged 65 and over than the national average. While many of this age group may continue to use the car as their preferred mode of choice, some may not be able to because of issues such as a health impairment or rising car running costs. As modern buses are now designed with low floors and provide level (step-less) access, there is likely to be an increasing demand for passenger transport from this group of the population.

The economy An overall expected growth in jobs is expected between 2006 and 2016 of 22%, an extra 5,000 jobs. Growth will focus on both Nelson and Richmond with Richmond experiencing the highest number of new jobs. Furthermore Nelson Airport, Annesbrook and Port Nelson will remain high employment areas. Further diversity in the economy is expected and growth in the tourism sector in particular is expected to be strong. This produces synergies between the increasing emphasis on green tourism and improving the quality of passenger transport.

The relative compactness of the region gives rise to inherent advantages and efficiencies in that a relatively high level of service (bus route coverage and service frequency) can be provided with a relatively low level of resources (buses and drivers). These characteristics together with the demographic and economic trends gives rise to an increasing demand for transport which could be largely met through increased passenger transport and active mode provision together with the adoption of sustainable transport policies. In short this means there is considerable potential to implement improvements to the passenger transport network as the catalyst for establishing a genuinely sustainable transport network for the region.

2. Plan Context

National Context

A number of national legislative and policy initiatives are currently in the process of being implemented that will bring about significant structural changes to the land transport sector. These legislative and policy initiatives will bring about changes to the funding and management transport networks including passenger transport. This Passenger Transport Network Plan has been developed consistent with these national legislative and policy initiatives. However, the implementation of this Plan relies only on national legislative and policy provisions prior to 2009 and is therefore not compliant upon the passing of any new Acts or national policy initiatives. The most significant recent changes are the:

- Public Transport Management Act 2008; commencing 2009
- Government Policy Statement (GPS) for Transport, published August 2008 (with current governments final amendments published May 2009)

The driving impetus behind previous legislative and policy initiatives is a desire by the Government to achieve a greater emphasis on increasing the efficiency of existing transport networks, which is particularly pertinent to passenger transport modes which cater for high volume travel movements. The Land Transport Management Amendment Act 2008 became law on 1st August 2008. The New Zealand Transport Strategy and the Government Policy Statement on Land Transport Funding 2009/10 - 2018/19 were published in August 2008.

The New Zealand Transport Strategy (NZTS) sets a 30 year vision for transport which is to be implemented through a framework of key targets. The NZTS signals the need for significant changes to New Zealand's transport network, which in the short terms heralds a period of transition focussing upon improving the efficiency of existing networks and focussing on improving provision for passenger transport and the active modes (walking and cycling).

The NZTS guides the Government Policy Statement (GPS) which is the mechanism through which the Government have signalled the size of the funding streams for each mode/ activity area of transport (known as activity classes), for the next ten years.

The first GPS reflects the previous government's priorities. The current government is amending the GPS to better reflect its economic and productivity goals.

Regional Context

The Regional Land Transport Strategy (RLTS) 2008 has been compiled following the North Nelson to Brightwater Corridor Study third stage consultation. The RLTS provides the strategic direction for the land transport network and sets the regional priorities. The RLTS sets out a preferred package of projects which include:

- Improved public transport
- Travel demand management initiatives
- Walking and cycling projects
- Traffic management and road projects

The RLTS has been developed consistent with the Regional Policy Statement as it is recognised that closer integration between transport and land use planning is necessary in order to achieve desired outcomes. The Regional Policy Statement seeks to encourage development patterns that minimise the need for transport, through mixed use development and intensification, where appropriate. Furthermore the Regional Policy Statement seeks to avoid the adverse effects of transport upon the community in terms of noise, vibration, vehicle emissions, landscape impacts, soil and water impacts and consumption of non renewable natural resources.

These land use and transport planning strategies and policies are also underpinned by the Local Government Act 2002 which requires Councils in their decision making to take a sustainable development approach. The Council has demonstrated its commitment to sustainable development and the wider sustainability agenda, through the adoption of a Council-wide Sustainability Policy. Other contributory strategies and policies developed by the Council include: Nelson Urban Growth Strategy (NUGS), the Economic Development Policy, the Climate Protection Action Plan, the Positive Ageing Strategy, the Pedestrian Strategy and the Cycling Strategy. These strategies and policies are taken account of in the development of the Council's Asset / Activity Management Plans. The Transport Asset Management Plan is expected to be approved later in 2008. All these strategies and policies are designed to relate to the Council's six community outcomes (long term goals): 1. Healthy Land, Sea, Air and Water, 2. People-Friendly Places, 3. A Strong Economy, 4. Kind, Healthy People, 5. A Fun, Creative Culture and 6. Good Leadership.

3. Vision & Targets

Vision

The Regional Land Transport Strategy 2008 sets the vision for the Nelson land transport network as **'a sustainable transport future for Nelson'**.

Passenger Transport Aims

The vision is an aspiration for the future, it sets a clear direction and context for developing policies, initiatives and implementation plans. In pursuit of this vision the Council's aims in respect of passenger transport are to:

- improve the efficiency of the transport network and reduce congestion
- enhance accessibility to local services / facilities / places of employment
- support environmental sustainability

Delivering these aims will require a major collaboration between the public and private sector with both committed to their fulfilment. It will also require the adoption and implementation of a range of sustainable transport policies and initiatives, wider than those contained in this Passenger Transport Network Plan. For example land use, resource management and parking policies will all have a contribution to achieving these aims. However the driving impetus to achieving these aims is a complete transformation of the passenger transport network, in terms of both quality and quantity.

Passenger Transport Principles - taking a Whole Journey Approach

The factors which determine whether an individual has a good passenger transport experience or not, are numerous. For example if a person has a frequent bus service with an attractive bus fare near to where they live but upon using it find that the bus has high steps which they find difficult and the driver was rude, then they won't have had a good experience and may not be inclined to choose the bus for their next trip. This outcome can be avoided by adopting a principle of taking a 'whole journey approach' to the design, implementation and operation of the bus network. This principle has been embedded into the preparation of this Passenger Transport Network Plan and will serve as a means by which all activities are tested and measured against.

To act as a check list to determine the extent of progress in delivering the 'whole journey' principle, Council has identified the following service characteristics that shall be monitored through the adoption of a range of challenging targets: modal share, accessibility, reliability, punctuality, sustainability, convenience, simplicity, user friendliness and affordability. These service characteristics will be measured using the following core targets.

Core Passenger Transport Targets

Key Outcomes	Targets	Target Reference
Increased peak period passenger transport modal share	Increase share of weekday journey to work trips by public transport to at least 10% by 2018.	RLTS Target ED2
Increased accessibility to passenger transport	80% of households are within 400 metres (5 minutes walk) of a bus route by 2012.	RLTS Target AM1
Key Outputs	**Targets**	**Target Reference**
Reliability	99% of all timetabled bus journeys are operated by 2014.	PTNP Target 1
Punctuality	95% of all timetabled bus journeys operate no earlier than 1 minute before and no later than 5 minutes after departure times as published in timetables by 2014.	PTNP Target 2
Sustainability	Total exhaust emissions of the bus fleet are lower in 2014 compared to 2008 notwithstanding the service frequency is proposed to increase by over 200% in bus kilometres operated.	PTNP Target 3
Convenience	All express and secondary * bus services operate at least every 30 minutes (Monday to Saturday daytime**) by 2014.	PTNP Target 4
Simplicity	Bus timetable information is easy to use and is widely available through multiple channels by 2014.	PTNP Target 5
User Friendliness	All bus drivers attend a customer service and disability awareness training course by 2014.	PTNP Target 6
Affordability	At least 33% of bus network costs are supported by the fare-box by 2018.	PTNP Target 7

* Express and secondary routes are defined on page 9
** Daytime means operating from 7am to 6pm

In addition to the core targets set out above, the Council will incorporate a range of key performance indicators (KPI's) into future bus contracts to aid performance monitoring and to meet the procurement and monitoring requirements of the New Zealand Transport Agency.

Supporting Wider Regional Land Transport Strategy (RLTS) Targets

Through the implementation of phased improvements to passenger transport as set out in this Passenger Transport Plan, the performance of passenger transport will also have a contributory impact upon wider transport targets as set out in the RLTS. The Passenger Transport Plan supports the following five RLTS targets.

Key Outcomes	Targets	RLTS Reference
Economic Development -contributing towards reducing peak hour road travel delays	Improve average peak hour travel delays by 10% by 2018 from values recorded in 2008.	Target ED1
Safety and Personal Security - contributing towards reducing the road injury toll	Reduce the total number of reported injury casualties by at least 20% by 2018 compared to 2008.	Target S1
Public Health - contributing towards improving air quality above 2006 levels	Reduce emissions to air from the transport sector by 2018 from values recorded in 2006.	Target PH2
Environmental Sustainability - contributing towards achieving long term reductions in greenhouse gas emissions	Reduce Nelson's greenhouse gas emissions from the transportation sector 2001 levels by at least 40% in 2020.	Target ES1
Environmental Sustainability - contributing towards changing the local community's travel behaviour	All subdivisions and developments need to include provision for walking, cycling and access to public transport.	Target ES3

The Benefits of Passenger Transport

Investment in passenger transport tends to be less tangible than other transport modes such as roads. However, passenger transport is arguably the only mode that contributes significantly to all five objectives of the New Zealand Transport Strategy. In order to make investment decisions some consideration of the benefits arising from passenger transport is necessary. The land transport sector allocates monetary (dollar) values to transport benefits using procedures required by New Zealand Transport Agency, in order to determine whether a particular transport scheme should be implemented or constructed.

Economic Development Benefits

Improving the quality and quantity of passenger transport has the potential to reduce or defer the need to invest in increasing the capacity of the road network. Passenger transport is an efficient means of

moving high volumes of people in an urban and suburban context. The capacity of passenger transport is defined by input resources in terms of the number of buses and bus drivers, rather than the capacity of the road network. Furthermore as people begin to respond to an improved passenger transport offering and switch from car to bus for journeys to work, this reduces pressure on the road network and will help to reduce or halt growth in traffic volumes. This in turn would provide travel time savings for road users and improved travel time reliability. In an era of rising fuel costs, passenger transport also has an important role to play in ensuring that people have a low cost means of getting access to local services and facilities. As passenger transport (through the support of subsidy) becomes an increasingly cheaper option for people compared with private transport, it will have an important role in keeping our regional retail sector and other sectors of commerce buoyant.

Safety Benefits

People are less likely to be injured or killed as a result of using passenger transport compared to using private motorised transport such as car or motorcycle. Implementing policies to encourage modal shift from private to passenger transport will result in less cars and motorcycles on the road and therefore less road crashes. This translates to safety benefits by the reduced social costs of crashes to the community, which can be calculated as a dollar value. Furthermore inadequate passenger transport provision for the community can lead to road safety issues as a result of no other affordable transport alternative, which in turn can result in unsafe vehicles on the road, an increased risk for young inexperienced drivers and passengers, an increased risk for rural road users travelling at higher speeds on the open road with higher levels of road trauma.

Accessibility and Mobility Benefits

Well designed passenger transport increases social inclusiveness. Passenger transport can promote social equality by playing a key role in ensuring that everyone in the community has an opportunity to access local facilities. Modern buses do not have entrance steps and provide level or near level boarding. This means that people with mobility impairments who are able to walk but cannot manage steps, are able to use buses to gain access to local facilities. In addition people who use wheelchairs are able to enjoy greater independence where modern buses are provided.

Public Health Benefits

Using passenger transport promotes healthier lifestyles as it necessitates some walking at the start and end of trips. The benefits of half an hour of walking a day are well understood and this is promoted by the healthcare sector as a major means of combating obesity. International research has shown a direct link between people who are over weight or obese and car dependency. Communities with no or poor passenger transport provision, who are highly car dependant have been shown to be at higher

risk of obesity.

Environmental Sustainability Benefits

Passenger Transport has a major role to play in supporting environmental sustainability. Improving passenger transport as part of a range of policies to reduce car dependence will lead to reductions in green house gas emissions per person trip compared with car trips. Likewise consumption of fossil fuel per person trip is much lower for passenger transport trips than car trips. Furthermore, increased passenger transport usage reduces the need to build new roads or increase road capacity. This also reduces the consumption of aggregates and other non-renewable natural resources.

Quantifying the Benefits

All of the above benefits can be quantified and monetised. This work will be done in the next stage of the project where all the benefits and costs are assessed in more detail, forming the basis of a Business Case which is required for the funding submission to New Zealand Transport Agency. This involves calculating the benefit cost ratio (BCR), the net present value (NPV) and the first year rate of return (FYRR), using the New Zealand Transport Agency Economic Evaluation Manuals.

4. Passenger Transport Services Required

Demand and Supply Side Characteristics

A Passenger Transport Network Plan is required to specify the passenger services that Council proposes be provided in its region, both generally and in respect to the transport disadvantaged.

A prerequisite for passenger transport services is the existence of a geographic concentration of demand. The origin of most people's trips is the home and the level of demand for passenger transport arising from residential areas depends on a range of factors including housing density, demographics, proximity to employment, retail, education and healthcare facilities etc. The relative compactness of the region gives rise to inherent advantages and efficiencies in that a relatively high level of service (bus route coverage and service frequency) can be provided with a relatively low level of resources (buses and drivers).

The fundament issue for the Nelson region in achieving greater use of passenger transport is the lack of a passenger transport choice. Deficiencies on the supply side in terms of quality and quantity of the current passenger transport network is constraining current passenger demand. The proposals for a new passenger transport network set out in this Plan would set the region on course for achieving journey to work by bus modal share of 3% in 2013/14 increasing to 10% by 2017/18. The current low level of passenger transport use does not mean that demand for passenger transport in the region is any lower than comparable region's across the country. The low level of provision does however mean that there is little historic data available to use as a base to estimate future passenger demand in order to assess the level of service that should be provided over the next three years plus.

Therefore in late 2007 the Council commissioned Parsons Brinckerhoff Ltd to undertake a Passenger Transport Network Review. The review included workshops with local stakeholders and telephone surveys with major local employers. Using both current demographic and census data and forecast demographic, land use and employment data the Nelson Transport Model was used to provide profiles of future travel demand. Taking wider regional policy objectives into account, options to meet this travel demand through improvements to the supply of passenger transport were developed together with a number of recommended policy tools.

Since the completion of the Passenger Transport Network Review a more detailed analysis of the level of service options has been carried out. The analysis focused on balancing travel demand characteristics with passenger transport supply characteristics, as shown in the following table.

Demand Side Characteristics	Supply Side Characteristics
Known and projected future land use patterns.	Passenger transport network required level of service to: meet community needs by catering for a wide range of trip purposes.
Current and projected growth/changes to demographics.	Passenger transport network required level of service to: widen travel choices and reduce the need to run a second car (reduce car dependency).
Current and projected growth/changes to the economy and employment.	Passenger transport network required level of service to: improve the resilience of the transportation network by providing low cost transport options to access employment, education and retail centres supporting the ongoing viability and prosperity of the local economy. Transport network resilience also improved by reducing dependency on non renewable fuels.

In determining the level of service required it is essential that the passenger transport network is able to meet the needs of the community by catering for a wide range of trip purposes. Local and central Government categorise trip purposes into the following six main groups:

- trips to work / school
- trips for work purposes
- trips to access healthcare facilities
- trips for shopping or conducting personal business
- trips to access recreation or sport
- trips for leisure purposes

The assessment of demand and supply characteristics and consideration of the needs of the community using a trip purpose matrix have lead to the concept of a Balanced Passenger Transport Network, see network map on page 75. The assessment also included information from a wide range of sources including the Nelson Tasman Regional Economic Development Strategy 2007 which highlighted the need for the provision of passenger transport in the evenings to cater for youth groups and people participating in recreation activities. Furthermore the Council's 2007 survey of residents identified a desire for better, cheaper and more frequent passenger transport services.

The proposed Balanced Passenger Transport Network would be implemented through a phased approach. The starting phase will be dependant upon the level of funding available from the New Zealand Transport Agency and the affordability of the local share. The following table describes the phases and target level of passenger usage for each phase.

Summary of Phasing Options

Phase	Level of Service	Target Passenger Trips
Phase A	Provision of one express bus service and two secondary bus services between Nelson and Richmond operating at least every 30 minutes in the peak, with a lesser frequency outside these times, Monday to Saturday 6.30am to 6.30pm. The existing local access service (branded "The Bus") to retain its existing level of service, subject to regular review of routes and timings.	
Phase B	Provision of one express bus service and two secondary bus services between Nelson and Richmond operating at least every 30 minutes 6.30am to 6.30pm Mon to Sat (combined frequency every 10 minutes). Plus hourly evening service until 11.30 pm and hourly daytime service on Sundays. One secondary service operating to the west and one operating to the east of the corridor. The existing local access service (branded The Bus) revised and upgraded to at least every 60 minutes day time Mon to Sat.	380,000 passenger trips p.a. in the first year rising to 625,000 passenger trips p.a. after three years
Phase C	As Phase A plus: Express service operates at least every 20 minutes from 7.00am to 6.00pm Mon to Sat. Plus earlier morning Express and Secondary services Mon to Sat.	730,000 passenger trips p.a.
Phase D	As Phase B plus: Secondary services operating at least every 20 minutes 7.00am to 6.00pm Mon to Sat. Existing 'The Bus' services substantially revised and upgraded operating every 30 / 60 minutes daytime frequency Mon to Sat plus some evening and Sunday provision.	855,000 passenger trips p.a.

Any of the above phases could be implemented from mid 2012, subject to further consultation with the community and Tasman District Council, the outcome of consultation on the Long Term Council Community Plan 2009 to 2019 and a successful application for funding assistance to New Zealand Transport Agency.

Comparison Between the Existing Bus Network and Phase A

Type of Bus Service	Existing Service	Phase A	Summary of Difference
Nelson to Richmond Corridor Service	Commercial bus service operating two routes to limited frequencies using old high step buses. The potential for attracting more passengers is limited due to the low level of service provided.	Contracted subsidised bus service operating one express and two secondary services at least every 30 minutes (day time) using new low floor, low emission buses. Plus hourly evening service and hourly Sunday daytime service.	Phase B provides a new express service providing fast transport between the two urban centres. Phase B provides improved accessibly for the community through the introduction of step-less, low floor buses. Phase B provides better penetration into residential areas using two secondary services. Phase B provides sufficient capacity to meet current demand (including latent demand) and caters for growth. Phase B hourly evening service and hourly Sunday daytime service can be provided at low marginal cost to Council.
Local Access Services	Contracted subsidised bus service (branded The Bus) operating four routes at infrequent intervals using old high step buses.	Contracted subsidised bus service operating four routes to basic hourly intervals.	Phase B upgrades existing routes to a base standard where buses operate to a regular hourly frequency, greatly enhancing their usability. Also buses could be upgraded depending on costs.

The following trip purpose matrix shows how the level of service of each phase addresses each of the six trip purposes discussed above.

Balanced Passenger Transport Network - Trip Purpose Matrix

Trips to work/school/ polytechnic	Trips for work	Trips to access healthcare facilities	Trips for shopping & personal business	Trips to access recreation or sport	Trips for leisure purposes	Outputs
Phase B	•	•	•	•	•	Bus network caters for a wide range of trip purposes. For example, it caters for most of Nelson Hospital shift patterns.
Phase C	••	••	••	••	••	As Phase B, but also caters for early morning shift patterns. Plus improved usability due to higher service frequencies.
Phase D	•••	•••	•••	•••	•••	Bus Network provides comprehensive coverage for most trip purposes. Bus network is attractive alternative to private transport for the majority of Nelson residents.

• = good base provision •• = enhanced provision ••• = comprehensive provision

5. Policies and Implementation

Passenger Transport Policies

To guide the implementation of passenger transport improvements and to support the ongoing operation of passenger transport, a range of specific policies have been developed. The policies cover three board areas:

i). Network Standards
ii). Vehicle & Infrastructure Standards
iii). Fares, Ticketing, Marketing and Passenger Transport Information

Bus Network Provision

The bus network should meet the needs of the community. To meet these needs the network has to provide for a wide range of journey purposes. This can be achieved using a Balanced Network approach which essentially seeks to cater for all six categories of trip purpose by balancing priorities and targeting resources to where they will benefit the greatest number of people.

Network Standards - RPTP Policy 1	Timing
Nelson City Council adopts a phased approach to the implementation of a new passenger transport network and commences with Phase A subject to the availability of funding and agreement on cross boundary issues.	Implementation from 2012/13

Bus Services for New Residential and Commercial Development

Changes in land use give rise to changes in demand for transport. Well considered land use planning can reduce to need to travel by locating residential and commercial land uses in close proximity, where appropriate. Consideration of active and passenger transport modes in terms of road layout and footpath linkages can dramatically influence the use of these modes into the future, reducing car dependence.

For larger developments, the Council will need to consider whether there is sufficient provision and capacity within the existing passenger transport network. Where there is not sufficient provision and capacity the Council may specify the level of service required to meet the forecast demand arising from the development and seek an appropriate financial contribution from the developer.

Network Standards - RPTP Policy 2	Timing
Nelson City Council will review the need for provision of passenger transport infrastructure and services to access new residential and commercial areas. The Council will investigate through the resource management process the appropriate level of passenger transport service required to service a development and seek appropriate financial contributions from developers, where appropriate.	Ongoing

Declining to Register a Commercial Bus Service

In order to provide the required quality and quantity of passenger transport, the Council during the next 4 years envisages moving to a fully contracted and subsidised bus network (with the exception of tour bus services such as the Nelson double deck bus tour). Under current legislation bus operators can provide commercial bus services by registering the service with their Regional Council. Commercial bus services may complement contracted bus services, however in some instances they

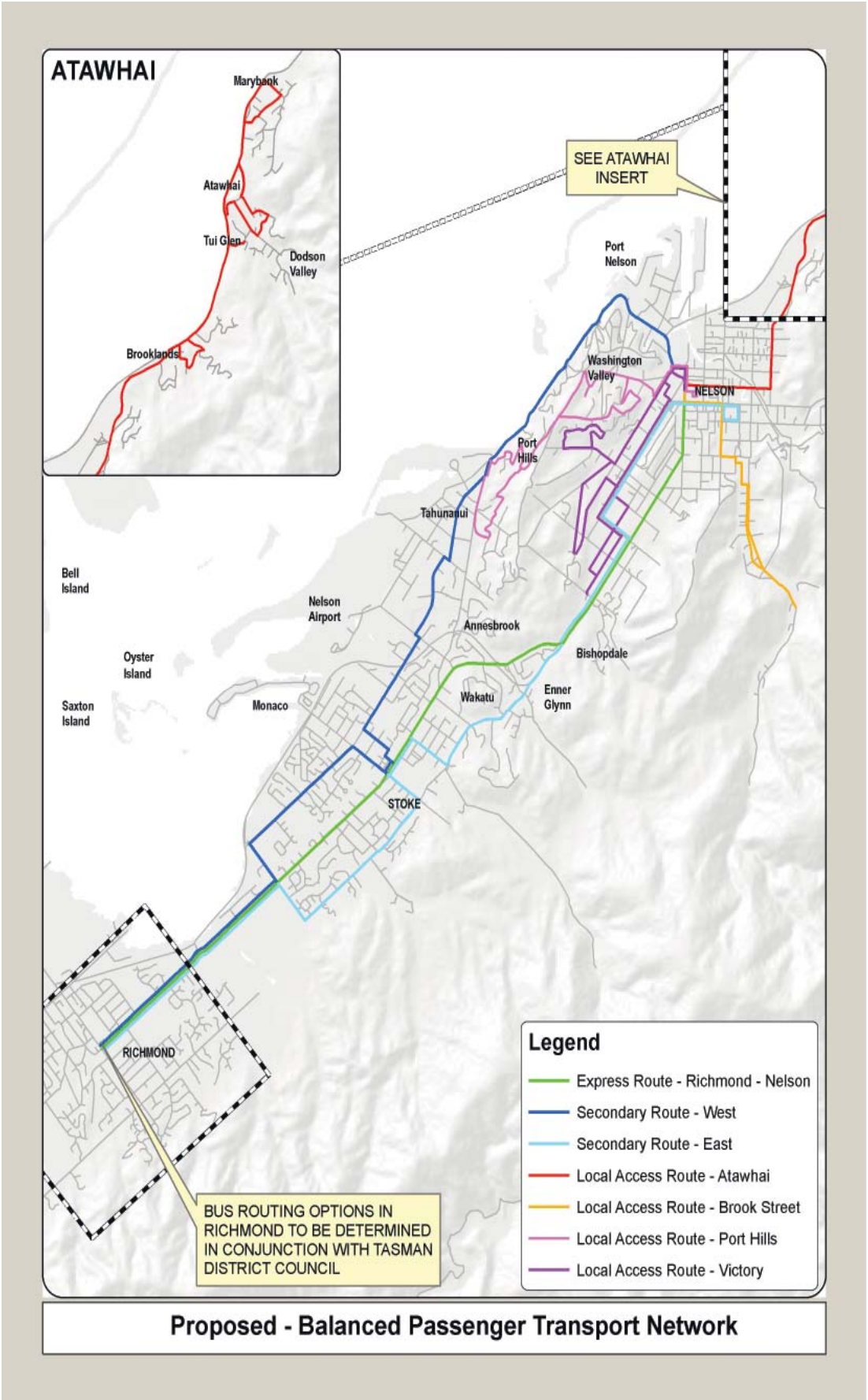
can detract from them and cause undesirable effects. An example might be where an operator proposes a service in competition with part of a contracted service. Often one part of a contracted service may be commercially viable but the entire network is not. Allowing the proposed service to operate might put the incumbent operator, particularly if he does not have a fixed price contract (gross contract) into a loss situation and jeopardise the continued operation of the whole network. Where contracts are let on a fixed price basis (gross cost) allowing the registration may increase the cost of the contract (with the incumbent operator) to Nelson City Council for little or no benefit. The Public Transport Management Act proposes to increase the powers of Regional Council further by enabling these Councils to set minimum operational standards for commercial bus services.

Network Standards - RPTP Policy 3	Timing
Nelson City Council may decline to register a passenger transport service (and therefore refuse to allow it to be operated) where the service: • is likely to increase the net cost to Nelson City Council of any contracted service; or • is contrary to sound traffic management or environmental sustainability practises or policies or is contrary to any other policy identified by Nelson City Council as being of importance to the region.	Ongoing

ii). Vehicle & Infrastructure Standards

Vehicle Accessibility Standards

The quality of vehicles plays a crucial role in the success of a passenger transport service. Vehicles should have design attributes that are appealing to the public in



Proposed - Balanced Passenger Transport Network

the same way that car designs appeal to the public. Vehicles should also cater for the widest possible cross section of the community in terms of vehicle accessibility. Good vehicle design features includes: wide access door/s, low floor step less entry, provision of hand rails, provision for wheelchair access and berthing, provision of priority seats for elderly persons, seating pitch that caters for taller people, provision for luggage, storage of buggies and cycle racks.

Vehicle and Infrastructure Standards - RPTP Policy 4	Timing
All buses operating contracted express and secondary routes in the Nelson region must be fully wheelchair accessible with low floor entry and exits without steps and without internal steps between front and rear doors (where rear doors are fitted). Tender documents issued by Nelson City Council may specify fully wheelchair accessible buses as a mandatory requirement for bus operators.	Implementation 2012 to 2019.

Vehicle Emissions Standards

Vehicle emissions are one of the largest sources of greenhouse gas emissions. Taking action to reduce vehicle emissions is a priority for central and local Government. The last few years has seen an upsurge in the advent of new technologies for the propulsion of vehicles. Various hybrid technologies have and continue to be trialled around the world and this heralds a period of technological transition. While many of these innovations have potential to dramatically reduce emissions and reliance on fossil fuels, the technologies have yet to be proven in terms of reliability and longevity. Consequently, there is a real risk that if Council opts for the latest hybrid or other technology, the whole initiative could backfire if the vehicles prove to be unreliable and cause disruption to the public. In such a situation public confidence in the bus network would be lost very quickly and this could lead to the possibility of a major part of the region's land transport strategy failing. If diesel powered vehicles are chosen for the first phase of the Balanced Passenger Transport Network, additional buses required for developing in the network in the following years could be ordered with hybrid or other technology. Therefore, the Council will keep under review the options for the vehicle propulsion technology and base decisions using a risk assessment based approach.

An option for the initial order of vehicles is diesel powered vehicles meeting EURO 5 emission standards. EURO 5 becomes a mandatory requirement for all new buses manufactured from 1st October 2009, in the European Union. Under EURO 5 standards, emissions of Particulate Matters (PM10) reduce to 5 mg/km (from 25mg/km under EURO 4) and Oxides of Nitrogen (NOx) reduce to 180 mg/km (from 250 mg/km under EURO 4). If brand new buses are specified in the tender documentation

and are sourced (at least the chassis and drive trains) from Europe, then they will be supplied as being EURO 5 compliant. It should however be noted that opting for EURO 5 compliant vehicles may affect the lead time for implementing the first phase of the new passenger transport network because the order books of the major vehicle (and chassis) manufacturers are increasing with the worldwide trend of increased interest in improving passenger transport networks.

Vehicle and Infrastructure Standards - RPTP Policy 5	Timing
All buses operating contracted express and secondary routes in the Nelson region should meet at least EURO 4 but preferably EURO 5 exhaust emissions standards. Tender documents issued by Nelson City Council may specify EURO 4 or EURO 5 emission standards as a mandatory requirement for bus operators.	Implementation 2012 to 2019.

Passenger Transport Infrastructure

Passenger transport services cannot operate efficiently without appropriate infrastructure. Passenger transport infrastructure includes bus stops, bus shelters, bus interchanges, bus lanes and priority measures. The effectiveness of this infrastructure is dependant upon good design. Good design involves striking a balance between functional performance, consideration of local character, visual amenity and wider environmental considerations. The New Zealand Urban Design Protocol has been developed to achieve better design outcomes for the country and Nelson City Council as a signatory is committed to playing its role in this.

The rate at which new passenger transport infrastructure can be implemented and existing infrastructure renewed is dependant upon financial resources and priorities. Transport infrastructure projects are identified in the Council's Transport Asset Management Plan, see RPTP Policy 7 over the page.

For passenger transport to be convenient to the public, it needs to be accessible close to where people live. In respect of the bus network this means the provision of bus stops is very important. Best practise principles regarding the location and spacing of bus stops is set out in RPTP Policy 8, below.

Likewise the provision of shelter from the elements is an important service attribute to ensure bus services are attractive all year round. No bus network has a bus shelter at very bus stop across a whole network, however many local authorities aim to provide a bus shelter at key bus stop locations where there is a concentration of passenger demand. This approach to bus shelter provision is set out in RPTP Policy 9, below.

Vehicle and Infrastructure Standards - RPTP Policy 6	Timing
All new passenger transport infrastructure in urban and sub-urban areas takes into account the New Zealand Urban Design Protocol.	Ongoing.

Vehicle and Infrastructure Standards - RPTP Policy 7	Timing
Nelson City Council will manage passenger transport infrastructure through the Transport Asset Management Plan in accordance with the Councils Long Term Council Community Plan.	Implementation 2012 to 2019.

Vehicle and Infrastructure Standards - RPTP Policy 8	Timing
Nelson City Council will manage the provision of bus stops on the basis that bus stops are provided at locations where there is an identified passenger demand. This will entail adding and sometimes removing bus stops. Spacing between bus stops should not be less than 200 metres and not more than 400 metres, unless this is justified for road safety or traffic management reasons. All proposed new bus stop locations or relocations shall be subject to a bus stop location safety audit.	Ongoing.

Vehicle and Infrastructure Standards - RPTP Policy 9	Timing
Nelson City Council will provide bus shelters at key bus stop locations. All bus shelters installed by the Council will include seating unless there is insufficient footpath width. The Council will prioritise locations for bus shelters where the average number of people using the stop is in excess of 50 people per day. The number of new bus shelters that can be installed each year will depend upon the availability of funding.	Implementation 2012 to 2019.

Fares, Ticketing, Marketing and Passenger Transport Information

Fares

Fares for commercial passenger transport services are set by the operator and Nelson City Council has no control over them. Fares for contracted passenger transport are usually set by a Regional Council. In determining the level of fares, Council has to strike a balance. Fares that are too high will discourage use; fares that are too low may require large amounts of subsidy. During the next two years the Council envisages moving towards a fully contracted bus network (with the exception of tour bus services such as the Nelson double deck bus tour). The following fare policy has been written with this in mind.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 10	Timing
For contracted passenger transport Nelson City Council will set the fare. In determining the fare, Council will adopt fare levels that: • encourage/incentivise use of services, • take account of operating costs and the effect on local rates. In order to manage inflationary cost pressures effectively Council will review fares annually, unless there are sound reasons for reviewing fares either more or less often.	Implementation 2012 to 2019.

Concessionary Fares

The provision of concessionary fares is not currently consistent across all bus services in the region. This raises issues of equitability for the community. The New Zealand Transport Agency Manual of Competitive Pricing Procedures Volume 2: Public Passenger Transport states: 'Concessionary fares are any fares that are less than fares paid by non-eligible groups'. In general terms concessionary fares are provided to persons who are transport disadvantaged. The Council has determined to provide concessionary fares to the following groups for the following reasons:

- Children aged under 5 - do not necessarily take up a seat and it is standard practise for this age group travel for free on buses.
- Children aged 5 to 15 - providing concessions for this group recognises that children can not legally drive and therefore are dependant on passenger transport to a greater extent than adults and are financially dependant upon parents or caregivers.
- Secondary school students and fulltime tertiary students - providing concessions for this group recognises that school / college students are not working fulltime and therefore do not generally have an income dependent from their parents or caregivers.
- People with disabilities - providing concessions for this group attempts to foster equality of opportunity between all in the community.
- Beneficiaries - providing concessions to this group recognises that people receiving benefits are generally likely to be living on an income that is lower than the average adult income, since most benefits are means tested.
- People aged 65 and over - providing concessions for this group recognises that the income of people aged 65 and over is generally likely to be lower than the average adult income and that many older people have a greater dependence on public transport as they may not be able to drive because of a health impairment.

The current level of concession provided to each group varies depending upon the bus service used, except children under 5 currently travel free of charge on all bus services. In most cases concessionary groups receive a discounted flat rate fare. There is a need to address inconsistencies and standardise concessions for each concession group, across all bus services in the region on either a discounted flat fare or percentage discount basis. The Council can implement these changes through either a Concessionary Fare Scheme or by specifying requirements in future bus contracts. The Council will need to consider the requirements of the New Zealand Transport Agency before determining the method for implementing changes to concessionary fares.

In Budget 2008, the Government announced proposal to fund the provision of off peak bus travel for people aged 65 and over and any other SuperGold card holders. The Government have committed $18 million a year nationally for its implementation. The Council is awaiting further details regarding how the initiative will be implemented. In principle the Council supports the initiative as it is consistent with the Council's Positive Ageing Strategy.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 11	Timing
Nelson City Council will provide bus fare concessions to the following groups, subject to individuals meeting eligibility criteria (to be developed by the Council): • Children aged under 5 (free travel) • Children aged 5 to 15 • Secondary School Students aged between 16 and 19 and Tertiary students on a fulltime course • People with disabilities • Beneficiaries • People aged 65 and over The level of concession provided will be determined and reviewed by the Council periodically. Concessions (as appropriate) will be either: • a flat rate fare, or • a percentage discount, or • free travel (with or without time of day restrictions) Nelson City Council will consider the implementation of the Government's initiative to provide free off peak bus travel to SuperGold Card holders, pending further information regarding funding and administration.	Implementation 2012 to 2019.

Electronic Ticket Machines

Ticketing systems provide a number of important functions. In addition to enabling a range of ticket options to be offered to niche passenger markets, they play an important role in:

- ensuring revenue protection for the operator and the Council,
- reducing transaction times, which reduce bus journey times,
- enhancing customer convenience, e.g. cashless payment and smartcards.

Ticketing systems record all ticket sales and this enables a process of reconciliation of fares received at the fare-box against what the ticket machine recorded in terms of number tickets and value of fares. This process of revenue protection provides transparency for both the bus operator and the Council.

Fares, Ticketing, marketing and Passenger Information - RPTP Policy 12	Timing
All buses operating contracted bus routes in the Nelson region must be fitted with electronic ticketing machines. Tender documents issued by Nelson City Council will specify electronic ticket machines as a mandatory requirement for bus operators.	Implementation 2012 to 2019.

Smartcard Ticketing

For bus services to be attractive to the public the journey times should be comparable with other modes of transport and in order to achieve this, the Council will need to focus on the main areas where buses get delayed. After traffic congestion, the next major area that causes delays to buses is bus stop transaction times. Conventional ticketing systems rely predominately on cash based transactions and this is inherently inefficient. Cash based systems require both the customer and the bus driver to carry cash. The customer experience is often characterised by a degree of fumbling around finding and or counting his or her cash and depending upon the customer this can sometimes take longer than necessary. The bus driver experience is often characterised by having a queue of passengers waiting to board but each one in turn having to locate and count cash. Sometimes this involves the bus driver receiving a large note for which he or she must give change.

Recent developments in ticketing machine technology have resulted in the introduction of cashless or smartcard systems, in a number of cities in New Zealand. While the option to pay cash remains in place, customers are incentivised to use the smartcard ticket option through the fare tariff structure. One such example of this is the Mana Coaches Smartcard operating in the Kapiti Coast district in Greater Wellington. The smartcard is charged up to dollar value rather like a pay as you go mobile phone. The customer swipes his or her smart card upon boarding the bus and this prompts the ticket machine to print a ticket showing the value of the fare purchased and the remaining dollar balance on the Smartcard. The average transaction time is 5 seconds or less. The average transaction time for cash transactions is 12 seconds, but often more. Therefore, the potential to yield significant journey time savings for all bus customers is considerable. For a typical morning peak scenario the bus journey time saving would be around 7 minutes.

Where Smartcard ticketing is coupled with a zone based fare structure it gives customers the ability to travel through the bus network changing buses to reach their destination without a fare penalty. In short this connects many more origins to many more destinations, giving some of the characteristics of a direct service without the huge costs of providing multiple direct services. The airline industry has used this concept to great effect for many years sometimes known as the 'hub and spoke' concept. Implementing systems that reduce barriers to make multi-leg journeys increases the attractiveness of the bus network particularly for those who have the choice of private or public transport. Given that investment is required in electronic ticket machines to ensure revenue protection, the add-on of Smartcard modules to ticket machines heralds a major opportunity to achieve added value for the public, the bus operator/s and the Council.

New Zealand Transport Agency is currently investigating the potential for establishing a national integrated smartcard ticketing system. The

work involves the establishment of a national technical standard for ticket machines (data protocol) and the design of a national back office function. It is anticipated that more information about the national scheme will be available in late 2008 / early 2009. Funding for the ticket machine hardware would be through the normal funding channels, which for public transport infrastructure is currently 60% funded by central Government and 40% funded by local Government.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 13	Timing
Nelson City Council supports the development and implementation of a national integrated smartcard ticketing system. Subject to further information being made available regarding the system (including costs and back office functions), tender documents issued by Nelson City Council may specify a mandatory requirement for bus operators to participate in any national integrated smartcard ticketing system.	Implementation 2012 to 2019.

Passenger Transport Marketing

The marketing of passenger transport is now recognised as being as important as the organisational functions involved in physically getting the buses on the road. This has been driven by a realisation that the bus is a large mobile advertising and marketing opportunity, continually travelling urban and suburban streets. Using contemporary marketing concepts, local Government and bus operators both here and overseas now focus upon establishing a brand identity. The branding is typically transferred through to other aspects of the service such as ticketing, information, bus stops etc and there is much evidence that this approach is successful in attracting additional customers providing revenue growth. However experience has shown that establishing a brand identity is substantially constrained when commercial advertising on the exterior of buses is permitted. For this reason the trend nowadays is to forgo the minor income from selling advertising space in place of a fully branded livery which in turn produces economic benefits through attracting new customers as part of a package of measures to improve 'the offering' to the customer. Examples of this fully branded marketing approach are Environment Canterbury's 'metro' and Auckland Regional Transport Authority's 'MAXX'.

However, research has shown that some types of advertising i.e. social marketing, does not compromise brand identity where the proportion of space for this advertising is clearly a secondary feature (i.e. no more than 25% of the external space). Typically such advertising focuses upon sustainability messages and promoting sustainable travel choices. For the interior space of buses wider messages about Council or community events and services can be provided without compromising branding, as long as there is a good turnover of messages and they do not become a dominating feature of the interior.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 14	Timing
All contracted bus services operating in the Nelson region will be fully branded. The brand design (livery) will be determined by Nelson City Council. Tender documents issued by Nelson City Council may state that all advertising rights (both exterior and interior) for the buses are retained by the Council. Tender documents may also specify branding requirements.	Implementation 2012 to 2019.

Passenger Information

The provision of passenger information is an essential part of marketing activity. There are three main types of passenger information; pre-journey, in-journey and post-journey. Accessible, concise and user friendly pre-journey information plays an important role in that it can influence an individual's transport mode choice. Information should be available from a variety of sources including, web-pages, council offices, public buildings and facilities, from tourism information centres, at bus interchanges, at bus stops and on the front of buses (the destination display). In-journey information is less critical but interior advertising can include bus network route and frequency summaries and leaflet racks can be fitted to display printed timetable leaflets. Post journey information is most relevant to irregular service users who will need to be reassured about which bus stop they need to go to for their return leg of their trip. Information should be designed taking account of people with disabilities.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 15	Timing
Nelson City Council will provide comprehensive route and timetable information through a range of channels. This will involve providing printed timetables and maps and publishing information on the Councils website. Printed information will also be provided and maintained at key bus stop locations.	Implementation 2012 to 2019.

Fares, Ticketing, Marketing and Passenger Information - RPTP Policy 16	Timing
All contracted bus services operating in the Nelson region will be required to display clear destination signs and route numbers. Tender documents issued by Nelson City Council may state specific destination sign requirements.	Implementation 2012 to 2019.

6. Indicative Costs, Funding Sources and Procurement

Indicative Operational Costs

The proposed Balanced Passenger Transport Network would be implemented through a phased approach consistent with Long Term Community Council Plan (LTCCP) time cycles. Either of the phases shown in the table below could be implemented from mid 2010, subject to further consultation with the community and Tasman District Council, the outcome of consultation on the LTCCP 2009 to 2019 and a successful application for funding assistance to New Zealand Transport Agency.

The New Zealand Transport Agency currently provide 50% funding assistance for bus services. After taking into account forecast fare-box revenue, the estimated annual costs to Nelson City Council and Tasman District Council (the local share) are set out in the table below. Further discussions and negotiations with Tasman District Council are needed to determine optimal bus routing options in Richmond and explore cost sharing arrangements. Cost sharing arrangements are only needed for the corridor bus services. Since the local access services (branded The Bus) operate wholly within Nelson City Council, the local share for these services will be met entirely by Nelson City Council.

Balanced Passenger Transport Network
Estimated Annual Operational Costs

Phase	Description	Total Cost p.a			Local Share p.a. can include NCC and TDC	
		No of Buses	Low estimate	High estimate	Low estimate	High estimate
Phase A	Reduced Base Network		$2.07m	$3.1m	$0.88m	$1.32m
Phase B	Base Network i) Nelson to Richmond corridor service, and ii) existing local access services currently branded 'The Bus', upgraded.	13	$3.52m	$5.27m	$1.49m	$2.24m
Phase C	Enhanced Network As Phase A plus earlier morning services and some enhanced frequencies.	14	$4.18m	$6.29m	$1.77m	$2.67m
Phase D	Comprehensive Network As Phase B plus comprehensive services frequencies.	18	$5.70m	$8.80m	$2.42m	$3.73m

Note: The costs shown are total annual costs. Therefore the additional cost of Phase B over Phase A is the difference in figures shown i.e. between $0.28 million and $0.43 million, per annum. Also the number of buses shown are the total number required to service each phase.

The estimated annual operating costs are indicative costs and are based on calculated total annual bus kilometres operated. A more detailed cost assessment will be undertaken as part of the requirements for funding assistance from New Zealand Transport Agency. Similarly, a more detailed fare-box revenue forecast will be undertaken by carrying out iterations of the Nelson Transport Model based on the level of service of Phase A, B, C and D to fulfil New Zealand Transport Agency funding requirements.

The estimated annual operating costs are based on the bus operator purchasing and owning the buses. Alternatively the Council could purchase and own the buses. Further investigations are needed in order to establish

whether there are any cost advantages to the Council for owning or not owning the buses. Clarification regarding the funding rules in respect of depreciation is needed from the New Zealand Transport Agency. Aside from these considerations there are wider factors to consider, as set out the following table.

Council Ownership of Buses

Advantages	Disadvantages
The Council would have more certainty on the timing of the introduction of a modern fleet of buses.	It could be viewed that owning major vehicle assets falls outside the Council's core business.
The Council would potentially be able to attract a larger number of tender bidders as the financial risks to the private sector would be reduced. A larger number of tender bidders is more likely to result in more competitive tender prices.	Some tender bidders may perceive the tender for the provision of the passenger transport service to be less attractive and therefore may not bother to bid, because they will not end up owning the buses at the end of the contract (i.e. there is no long term reward for operating the service).
The Council would be in a better position to maintain the ongoing operation of the bus service should the successful bus operator fail to operate the service to the specified performance standards or should the successful operator pull out from the marketplace as a result of insolvency or other major occurrence.	The Council would have to set up specific ownership agreements with the successful bidder covering the ownership, maintenance and insurance of the vehicles over the life of the bus contract.
Owning the buses could be more cost effective in the long term as the Council would not have to pay a commercial rate on capital for the buses (which would be the case if a bus operator purchases the buses and then builds this cost into his/her tender price). However, the Council would have to depreciate the vehicles and this could have the effect of negating any long term savings.	The Council would need to determine how to best deal with the depreciation of the vehicle assets. This would probably mean that deprecation would have to be built into the operational costs of the service and hence counter any saving made in tender prices as a result of bidders not having to supply vehicles.

Looking at the wider picture, the Council will wish to attract the largest number of tender bids to ensure a genuinely competitive market place for the operation of the bus network. A competitive market place is important as the Council can have greater confidence that the tender prices represent good value for money. In order to encourage the widest number of tender bidders, the Council could seek separate tender prices for the bidder purchasing the buses and the Council purchasing the buses. The Council could then make a decision on which party purchases the buses after assessing all tender bids.

Passenger Transport Infrastructure Costs

Investment in a Balanced Passenger Transport Network will need to be supported by investment in infrastructure. Passenger transport infrastructure includes bus stops, bus shelters, bus interchanges, bus lanes and bus priority measures. Background information and policy on passenger transport infrastructure is set out on page 77.

The efficiency of passenger transport is enhanced by providing bus priority measures. Bus priority measures can be implemented without reducing road capacity (i.e. without reducing the level of service to motorists) by introducing some time restrictions for on-street car parking. For instance a bus lane may be provided in the morning peak between 7am and 9am by not allowing on-street car parking during this period. Passenger transport infrastructure currently receives a funding assistance rate of between 53% and 60% from central Government, with the remainder funded by local Government. The estimated costs of implementing the required improvements to infrastructure are as follows:

Passenger Transport Infrastructure Estimated Capital Cost

	Total Capital Cost		Local Share	
	Low estimate	High estimate	Low estimate	High estimate
Bus Stop Upgrades: involving lay-by tapering improvements and footpath widening to provide better protection for passengers and room for new bus shelters, additional cycle racks / storage facilities and improved passenger information display infrastructure at bus stops.	$0.600m	$0.700m	$0.240m	$0.280m
New on-street Bus Interchanges at Nelson and Stoke	$0.225m	$0.275m	$0.090m	$0.110m
Bus Priority - Whakatu Roundabout / Beatson Road / Waimea Road	$0.10m	$0.14m	$0.047m	$0.066m
Bus Priority - Waimea Road bus priority lanes	$0.275m	$0.325m	$0.129m	$0.153m
Bus Priority - CBD bus priority intersections and Rutherford Street 2-laning	$0.065m	$0.085m	$0.031m	$0.040m
Totals	$1.265m	$1.525m	$0.537m	$0.649m

In order to ensure that infrastructure improvements are in place before the launch of the new Balanced Passenger Transport Network, the majority of these projects will need to be programmed for the 2011/12 financial year. Initially bus interchanges in Nelson and Stoke will be provided on-street, however in the medium to long term opportunities to move to fully enclosed interchanges similar to the Christchurch Bus Interchange "departure lounge" concept, will be explored. Increased passenger transport infrastructure provision will give rise to increased maintenance costs. Where the infrastructure is essentially a road asset the maintenance of the asset will be covered by the road maintenance programme. Other maintenance costs (not strictly deemed to be maintenance of a road asset) include the cost of cleaning bus shelters, replacing glazing and maintaining passenger information at bus stops. These costs along with other operational costs such as a passenger transport marketing programme are included in the bus network annual operational cost estimates set out on page 82.

Summary of Operational and Capital Costs - Local Share

Summary of Estimated Costs 2009/2012						
Phase A	**2011/12**		**2012/13**		**2013/14**	
	Low estimate	High estimate	Low estimate	High estimate	Low estimate	High estimate
Operational cost: shared between NCC and TDC	- -	- -	$1.49m	$2.24m	$1.49m	$2.24m
Capital cost: NCC only	$0.447m	$0.539m	$0.09m	$0.11m	$0	$0

Funding Sources

Currently the main sources of funding for passenger transport are:

- user charges i.e. bus fare-box
- central government funding
- local government funding i.e. local rates

Bus passengers provide a funding stream through the fare-box. There is no set minimum requirement for how much the fare-box should yield in proportion to overall service costs. However for smaller cities and regions is a fare-box recovery of around 20% to 35% is typical. New bus services take a number of years for patronage to build momentum and achieve true potential, therefore it is normal for the farebox recovery to be relatively low during the first two years of operation.

Central Government currently provide 50% funding assistance to local Government on the net subsidies paid to bus operators, i.e. having firstly deducted the fare-box revenue. The remaining 50% (the local share) has to be met by local Government. As some of the proposed passenger transport network is to operate across local Government boundaries, negotiations with Tasman District Council will need to take place to determine the composition of local share.

The Ministry of Transport have recently (August 2008) published the Government Policy Statement on Land Transport Funding 2009/10 - 2018/19, refer page 5 for background information. This sets the size of national funding streams and for transport modes / activity classes. The indicative national funding allocations for the ten year period for passenger transport are significantly greater than current funding levels. The national targets are to be translated into regional targets and while this raises a number of challenges and opportunities for the region, it also raises expectations that funding for delivering on targets will be made available by New Zealand Transport Agency.

Other funding sources that can be considered, include:

- contributions from major commercial and residential developments
- ring fenced transport revenue streams such as car parking and differential rates
- a regional fuel tax levy (note- revenues can only be spent on capital items)

While contributions from major commercial and residential developments have an important role to play in developing sustainable transport networks, the level of funding from this stream is likely to remain a small proportion of the overall funding stream. Similarly, revenue streams from car parking can have a role to play in terms of potential to off set the costs of alternative transport provision such as passenger transport. Furthermore, the supply and pricing of parking can be used as a policy tool to manage parking demand as part of a Travel Demand Management Strategy, in conjunction with actions to improve the attractiveness of passenger transport and active modes.

Procurement

New Zealand Transport Agency are currently in the process of implementing a review of procurement for physical works, professional services and passenger transport. The first stage of this is the publication of an interim Procurement Manual. All Councils procuring passenger transport services have to produce a Procurement Strategy. The strategy has to include an analysis of the market place, the Council's procurement philosophy and a host of detailed procurement procedures. Details such as contract type (i.e. gross cost, net price or other), contract length, contract size, quality and resilience of tender bidders, the tender evaluation methodology etc, are to be set out in the strategy.

7. Integration and Innovation

Integration

The proposal's set out in this Plan to implement a new passenger transport network provide an ideal opportunity to enhance modal integration through the design and specification of both the bus network and bus infrastructure. Integration can be addressed in all three segments of a journey:

- at the journey origin before boarding a bus
- during the bus journey
- at the journey destination

Integration with walking and cycling can be achieved at the journey origin by ensuring bus stops are properly connected to footpaths and pedestrian crossing facilities are provided nearby where needed (i.e. where traffic flows are high). The provision of cycle parking nearby key bus stops will enhance integration between cycling and passenger transport. Where cycles are parked for several hours, cyclists will need to be satisfied that their cycle is secure. Where practical, secure cycle parking should be provided at key bus stops subject to the availability of space and consideration of visual amenity etc.

Integration with cycling during the bus journey can be achieved by the provision of cycle racks mounted on the front of buses and or by the provision of cycle trailers. Environment Canterbury has been trialling cycle racks on buses since November 2007 and recently extended the trial for a further 6 months. Feedback provided by Environment Canterbury is that the trials have gone very well and the use of the racks by the public has been high. The racks carry two cycles and cycles are not permitted to be carried inside the buses.

While cycle racks are undoubtedly a step forward in achieving modal integration, cycle trailers have the advantage of offering significantly greater cycle carrying capacity. The level of demand for carrying cycles on buses is not known, however there is some anecdotal evidence that there is a demand for leisure and recreation trips at weekends and during school holidays. A cycle trailer service operating on the Nelson to Richmond bus route via Rocks Road would provide improved access to Tahunanui Beach and the whole waterfront area, from a wide range of suburbs across the region.

While providing cycle racks and or cycle trailers would greatly improve modal integration, the loading and unloading of cycles could cause delays to other bus passengers. However, as cycle racks only carry two cycles, the extent of any delays would be manageable on most bus routes. Also if trailers were to only be operated at weekends and possibly during school holidays then this would reduce the impact of delays. The most appropriate routes for operating cycle racks and or trailers would be the

two secondary bus routes operating between Nelson and Richmond, one to the west and one to the east of the corridor. Cycle racks and or cycle trailers would not be compatible with the express bus route between Nelson and Richmond which is to be the region's premier bus route operating on a limited stop express basis.

Cycle racks are relatively low cost at around $3,000 per bus, whereas cycle trailers would cost around $20,000 each, depending on specification. The recommended approach in the short term is to investigate the feasibility of fitting cycle racks to secondary bus routes subject to a satisfactory pre-implementation project safety audit. If sufficient demand arises consideration could then be given to trialling a cycle trailer subject to the availability of funding and the outcome of a pre-implementation project safety audit.

Integration at the destination can be achieved by ensuring bus interchanges and key bus stops serving major destinations such as hospitals, colleges and the polytechnic, major employment sites, leisure facilities etc are properly connected to footpaths and pedestrian crossing facilities are provided (where traffic flows are high). At bus interchanges provision should be made for secure cycle parking and secure storage of luggage to aid shopping trips by bus.

Innovation

Nelson could be the first smaller city / region in New Zealand to implement a passenger transport network that provides an attractive alternative to private transport. This would place Nelson on a national footing in terms of transport sustainability accolade. There could also be wider economic benefits and synergies in terms of underpinning the region's green tourism credentials.

The opportunity for innovation arises in a range of areas including vehicle propulsion / emissions technologies, vehicle design and accessibility, smartcard ticketing, bus interchange, bus priority, cycle integration etc. While some of these can be designed into the new bus network with a neutral or marginal risk and cost implication, some will require further investigation in order to aid decision making. A common thread between these service components is that they all contribute towards a ëwhole journey' approach to the design and implementation the passenger transport. Taking a 'whole journey' approach is consistent with international best practise, the highly acclaimed 'Routes to Revenue Growth' report published in 2006 in the UK found that the common emerging factor from the analysis of the nine case studies has been that the local managers (private and public sector) have used every resource at their disposal to provide an attractive product that can be advertised to full advantage to not just existing customers, but to those who have become estranged to bus use over the years.

A 'whole journey' approach is also consistent with social equality objectives and the potential for passenger transport to make a major contri-

bution in this area was highlighted in the Commission for Human Rights report 'The Accessible Journey'. It is also noteworthy that the Commission will be carrying out a review across the country in 2010 to ascertain the extent of progress since their 2005 report. This aligns well with the timeframe for the implementation of the new bus network proposed in this document which could be implemented from mid 2010 onwards.

8. Monitoring and Review

The key Regional Land Transport Strategy targets for passenger transport together with seven more specific 'core' passenger transport targets are set out on pages 7 and 8. These targets have been developed in anticipation that the Council will implement a new bus network for the region commencing mid 2012.

The Council will monitor these targets using a combination of surveys conducted by Council staff and the use key performance indicators (KPI's) which will be incorporated into future bus contracts to meet the performance monitoring requirements of the Council and the New Zealand Transport Agency. The results of these surveys and KPI's will be fed into the Annual Monitoring Report which the Council is required to produce to track progress in achieving Regional Land Transport Strategy targets. The report has to be produced within three months of the end of the Council's financial year.

In addition the Council will monitor resident satisfaction with local transport through its annual residents survey. This may include a specific satisfaction question about passenger transport. The public will also have an opportunity to provide feedback on passenger transport through the Long Term Council Community Plan and Annual Plan process. Since the Public Transport Management Act has received Royal Assent this Passenger Transport Network Plan will need to be reviewed in light of the new legislative provisions by 1st January 2012.

9. Conclusions

The current passenger transport network is not meeting the needs of the community, there are deficiencies in terms of both network quality and quantity. This Passenger Transport Network Plan has been developed consistent with the findings of the North Nelson to Brightwater Corridor, Study third stage consultation and the Passenger Transport Network Review undertaken by Parsons Brinckerhoff in late 2007/early 2008.

Growth in population and the local economy together with changes in land use patterns is driving increased demand for transport in the short and medium term. Investment is needed in the transport network to accommodate this increasing demand and to sustain economic growth. The relative compactness of the region gives rise to inherent advantages and efficiencies in that a relatively high level of service (bus route coverage and service frequency) can be provided with a relatively low level of resources (buses and drivers). Therefore investment in the passenger transport network would defer and reduce the need to invest in enhancing the capacity of the road network. Furthermore, the medium to long term resilience of the transport network would be improved through investment in passenger transport by reducing transport network dependency on non renewable fuels.

This Passenger Transport Network Plan proposes the implementation of a Balanced Passenger Transport Network through a phased approach involving some capital but mainly operational expenditure. The proposal has been developed through an assessment of demand and supply side characteristics and consideration of the needs of the community in terms of a wide range of trip purposes. The design of the network provides a one off opportunity to achieve a step change in transport integration and innovation. Nelson could be the first smaller city in New Zealand (with a population under 100,000) to implement a passenger transport network that is an attractive alternative to the car. This would lead to wider economic benefits and would also underpin the regions green tourism credentials.

Summary of Benefits

The proposed Balanced Passenger Transport Network will provide the catalyst for establishing a sustainable transport network for the region by:

- assisting economic development by providing transport mode choices which have cheaper user costs (i.e. bus fares cheaper than the cost of car trips), helping to keep our regional retail sector and other sectors of commerce buoyant. Also assisting economic development by improving the efficiency of the transport network and reducing traffic congestion.
- enhancing accessibility to local services and facilities for everyone in the community through the introduction of step-less low floor buses operating at more convenient frequencies. This will particularly assist accessibility for older people, parents with young children and people with mobility impairments.

- supporting environmental sustainability by achieving modal shift (i.e. some existing private motorists begin to choose passenger transport thereby reducing the need to own and run a second car). A progressive modal shift will lead to long term sustainability benefits in terms of reductions per capita in green house gas emissions and consumption of non renewable fuel and natural resources.
- promoting public health by increasing use of active modes such as walking and cycling as part of passenger transport trip patterns. Investment in passenger transport widens travel choices, thereby reducing car dependency. International research has shown a direct link between people who are over weight or obese and car dependency. Communities with no or poor passenger transport provision, who are highly car dependant have been shown to be at higher risk of obesity.
- reducing the road toll by reducing the number of motor vehicles on the road. Inadequate passenger transport provision for the community can lead to road safety issues as a result of no other affordable transport alternative, which in turn can result in unsafe vehicles on the road, an increased risk for young inexperienced drivers and passengers, an increased risk for rural road users travelling at higher speeds on the open road with a higher level of road trauma.

Summary of Costs

The proposed Balanced Passenger Transport Network would be implemented through a phased approach consistent with Long Term Community Council Plan (LTCCP) time cycles.

Phase A, B, C or D could be implemented from mid 2012, subject to further consultation with the community and Tasman District Council, the outcome of consultation on the Long Term Council Community Plan 2009 to 2012 and a successful application for funding assistance to New Zealand Transport Agency.

Further discussions and negotiations with Tasman District Council are needed to determine optimal bus routing options in Richmond and explore cost sharing arrangements. Cost sharing arrangements are only needed for the corridor bus services. Since the local access services (branded The Bus) operate wholly within Nelson City.

Appendix B

Nelson City Council Regional Travel Demand Management Strategy

Contents

Appendix B

Nelson City Council Regional Travel Demand Management Strategy

1 Introduction

1.1 Purpose

The purpose of the Regional Travel Demand Management Strategy is to provide a structured approach for the implementation of travel demand management measures within Nelson City.

This strategy sets out three travel demand management policies for Nelson in regards to influencing travel behaviour, parking management and CBD access and land use planning.

1.2 Background

It is now widely acknowledged that unrestricted demand for travel by car alone within populated urban and suburban areas is undesirable and is not sustainable. This generally arises from a combination of financial constraints and concerns over the potential impacts of traffic on local communities and their environment.

Indirectly, some aspects of Travel Demand Management (TDM) have been in evidence for considerable periods of time. Such examples include mixed use development where housing has been located close to places of employment, enabling most workers walk to work.

There have also been mandatory schemes introduced through the shortage of fossil fuels, such as petrol rationing, which brought about significant reductions in vehicle usage and congestion. Increased awareness and concern over the effects of traffic upon the environment and particularly upon personal health, has brought about schemes in large urbanised areas which have either prohibited the access of the private motor vehicle or restricted their use to limited times of the day or week.

TDM strategies are a package of measures or combination of system components which can be targeted at influencing travel behaviour or restraining the demand for a transport facility. These measures can be targeted at the type of user, time of day, mode of travel, spatial location, frequency and cost.

The driving influence for the development of TDM has stemmed from the recognition of the adverse effects of traffic on the environment, the high cost associated with the provision of funding transport infrastructure and the desire to have more integrated, balanced and sustainable transport systems to reduce the dependency upon car related travel.

1.3 Challenges and Opportunities

Both individuals and organisations have their own culture which often opposes the opportunity to change. For TDM to be successful there needs to be both a corporate and community acceptance of the need for change

to occur. This will probably require incentives and/or cost changes to act as the catalyst for change.

The successful development and implementation of TDM strategy will need to overcome a number of hurdles, including:

- Community negative attitudes to travel restrictions and pricing.
- Concern over the equity of access.
- Little or lack of alternatives to change the journey to work mode.
- The perceived low cost of private motor vehicle trips.
- The cost of subsidies and cross-subsidies, which often hide the true cost of a transport from the user.
- Lack of ability to pay for certain transport services.
- Perception of some schemes as unattractive.
- Need for alternative, complementary packages of transport.
- Inflexibility or difficulty in changing work or school hours.
- Practical effectiveness of voluntary measures (e.g. carpooling).

Demand management has the potential to ease congestion problems in the short-term at relatively low levels of expenditure. It may also defer or avoid altogether the need for some infrastructural improvements, resulting in financial savings and environmental benefits. The success of demand management measures is, however, reliant upon the willingness of the community to make behavioural changes in its patterns of travel and this makes the prediction of the effectiveness subject to uncertainty. For this reason, the Regional Land Transport Strategy couples demand management measures with improvements to public transport, walking and cycling.

2 Strategy Context

2.1 National Context

A number of legislative and policy initiatives are currently in the process of being implemented that will bring about significant structural changes to the land transport sector. These legislative and policy initiates will bring about changes to the funding and management of land transport. This is being driven by a need to bring alternative modes of transport into the main stream to achieve more sustainable transport networks across New Zealand. The most significant changes are the:

- Land Transport Management Amendment Act 2008
- Public Transport Management Bill
- Updated New Zealand Transport Strategy
- Government Policy Statement (GPS) for Transport

Also closely aligned to this is a desire by the Government to achieve a greater emphasis on increasing the efficiency of existing transport networks. The Land Transport Management Amendment Act became law on 1st August 2008, while the Public Transport Management Bill is currently undergoing parliamentary process. The New Zealand Transport

Strategy and the Government Policy Statement on Land Transport Funding were published in August 2008.

The New Zealand Transport Strategy (NZTS) sets a 30 year vision for transport which is to be implemented through a framework of key targets. The NZTS signals the need for significant changes to New Zealand's transport network, which heralds a period of transition focussing upon improving the efficiency of existing networks and focussing on improving provision for passenger transport and the active modes (walking and cycling).

The NZTS guides the Government Policy Statement (GPS) which is the mechanism through which the Government have signalled the size of the funding streams for each mode / activity area of transport (known as activity classes), for the next ten years.

2.2 Regional Context

The Regional Land Transport Strategy (RLTS) has been compiled following the North Nelson to Brightwater Corridor Study third stage consultation. The RLTS provides the strategic direction for the land transport network and sets the regional priorities. The RLTS sets out a preferred package of projects which include:

- Improved public transport
- Travel demand management initiatives
- Walking and cycling projects
- Traffic management and road projects

The RLTS has been developed consistent with the Regional Policy Statement as it is recognised that closer integration between transport and land use planning is necessary in order to achieve desired outcomes. The Regional Policy Statement seeks to encourage development patterns that minimise the need for transport, through mixed use development and intensification, where appropriate. Furthermore the Regional Policy Statement seeks to avoid the adverse effects of transport upon the community in terms of noise, vibration, vehicle emissions, landscape impacts, soil and water impacts and consumption of non renewable natural resources.

These land use and transport planning strategies and policies are also underpinned by the Local Government Act 2002 which requires Councils in their decision making to take a "sustainable development approach". The Council has demonstrated its commitment to sustainable development and the wider sustainability agenda, through the adoption of a Council-wide Sustainability Policy. Other contributory strategies and policies developed by the Council include: Nelson Urban Growth Strategy (NUGS), the Economic Development Policy, the Climate Protection Action Plan, the Positive Ageing Strategy, the Pedestrian Strategy and the Cycling Strategy. These strategies and policies are taken account of in the development of the Council's Asset / Activity Management Plans. The Transport Asset Management Plan is expected to be approved later in 2008. All

these strategies and policies are designed to relate to the Council 's six community outcomes (long term goals): 1. Healthy Land, Sea, Air and Water, 2. People-Friendly Places, 3. A Strong Economy, 4. Kind, Healthy People, 5. A Fun, Creative Culture and 6. Good Leadership.

2.3 Strategy Development

The basis of this strategy was developed as part of the North Nelson to Brightwater Corridor Study, which investigated the transport needs of the Nelson and Richmond areas and produced a strategy of projects and activities over a 25 year period to cater to this demand.

The Corridor Study recommended improvements and initiatives for Roading, Passenger Transport, Travel Demand Management, Walking and Cycling. Accordingly, the projects and activities in this document need to be implemented concurrently with projects and activities within the Passenger Transport, Cycling and Walking Strategies / Plans. This will ensure that individuals have a greater range of transport choices to consider when planning travel and will help reduce car borne demand on the road network.

3 Vision & Targets

3.1 Vision

The vision for the Nelson land transport network, as stated in the RLTS, is:

> 'a sustainable transport future for Nelson'

The associated mission for Nelson is:

> 'to have a land transport system which is safe, efficient, integrated and responsive, and which meets the needs of the region in ways which are environmentally, socially and economically sustainable.'

This vision is embodied in the following high level objectives:

- **Assist Economic Development**: a transport system that supports national and regional development
- **Safety & Personal Security**: a transport system that reduces road trauma and contributes to a sense of individual and community safety and security
- **Access & Mobility**: a transport system that is effective, integrated and physically and financially accessible by all users
- **Public Health**: a transport system that contributes to improved health and well-being
- **Environmental Sustainability**: a transport system that supports national and regional strategies for energy efficiency and climate change, and protects natural and community values
- **Economic Efficiency**: a regional transport programme that is affordable for the Nelson community and users

The RLTS acknowledges that the achievement of the vision and objectives relies on moving away from providing for travel demand by building roads and infrastructure to reducing vehicle use by encouraging transport behavioural change, providing improved modal choice and reducing the demand for travel. The available means of achieving this vision are complex and inter-related. It is clear that no single activity in isolation will be successful in meeting the high level objectives and an integrated package of activities is required.

3.2 Travel Demand Management Aims

The vision, mission and objectives set a clear direction and context for developing policies, initiatives and implementation plans. The aims for travel demand management are:

- To maximise the efficiency of the transport system
- To improve the health and well-being of users
- To support environmental sustainability

Travel demand management can maximise the efficiency of the transportation system by removing the less essential trips or shifting them to times or modes that place less demand on the system. This ensures that the more essential trips are able to be made efficiently, thereby contributing to the economic development of the region.

The health and well being of users can be improved by encouraging more trips to be undertaken by active modes, such as walking and cycling.

The environmental sustainability of the transport system can also be supported by the encouragement of efficient modes and land use planning that does not place undue pressure of the transport network.

Delivering these aims will require a change in focus from the Council and will require the adoption and implementation of a range of projects, activities and measures wider than those contained within this Travel Demand Management Strategy. For example, public transport, land use and resource management policies will have a contribution to achieving these aims.

The factors which determine the mode people choose include cost, convenience, speed, comfort and sustainability and many others. Travel Demand Management measures can influence these factors and the way in which people view these factors.

A wide range of projects, activities and measures can contribute towards the TDM objectives. But no one individual measure can provide a solution to urban transportation problems. The North Nelson to Brightwater Corridor Preferred Package therefore combined activities and measures together in order to achieve the overall vision and objectives.

Packaging activities and measures together can produce benefits in three main ways by.

- Aligning with and complementing other projects thereby enhancing outputs and outcomes.
- Enabling other elements of the strategy to be financially feasible – i.e.

parking charges could provide finance for other transport infrastructure.

- Balancing improvements to travel supply with controls on travel demand to improve public acceptability. This being particularly true for harder hitting TDM measures such as road or congestion pricing which can be softened considerably if the resulting revenue is invested in passenger transport service improvements.

Hence packaging measures together provides greater benefits than that accrued from the sum of the parts as synergy is achieved.

3.3 Travel Demand Management Targets

In order to ensure the expedient delivery of Travel Demand Management and hence the benefits associated with them, the following targets have been adopted.

Key Output	Target	Target Reference
School Travel Plans	All secondary, intermediate and primary schools on arterial routes to have travel plans by 2012, with the remainder completed by 2016	RTDMP Target 1
Workplace Travel Plans	100% of workplaces with more than 50 staff to have Workplace Travel Plans by 2016	RTDMP Target 2
Car pooling	To have 200 registered users by 2016	RTDMP Target 3
TravelSmart	5% of households in NCC to be contacted to offer TravelSmart services annually (beginning after commissioning of new public transport services)	RTDMP Target 4

3.4 Supporting wider RLTS Targets

The implementation of travel demand management as set out in this strategy will have a contributory impact on the wider transport targets as set out in the RLTS. The TDM strategy supports the following RLTS targets:

Key Outcomes	Target	RLTS Reference
Economic Development	Improve average peak hour travel delays by 10% by 2018 from values recorded in 2008	Target ED1
	Increase share of weekday journey to work trips by public transport to at least 10% by 2018	Target ED2
	Increase number of vehicles with more than one occupant in the peak period across the Waimea Rd/Rocks Rd screenline to at least 10% by 2018	Target ED3
Safety and Personal Security	Reduce the total number of reported injury casualties by at least 20% by 2018 compared to 2008	Target S1

Key Outcomes	Target	RLTS Reference
Public Health	Percent of journey to work trips undertaken by walking and cycling to be increased to at least 25%	Target PH1
	Reduce emissions to air from the transport sector by 2018 from values recorded in 2006	Target PH2
Environmental Sustainability	Reduce Nelson's greenhouse gas emissions from the transport sector 2001 levels by at least 40% in 2020	Target ES1

4 Policies and Implementation

4.1 Policy Framework

The Travel Demand Management policies in this document reflect the policies in the Regional Land Transport Strategy and have been developed in conjunction with policies for other transportation modes, projects and measures to ensure a balanced approach is taken towards transportation in Nelson.

4.2 The Benefits of Travel Demand Management

Travel demand management has the potential to ease congestion problems in the short-term at relatively low levels of expenditure. It may also defer or avoid altogether the need for some infrastructural improvements, resulting in expenditure savings and environmental benefits.

The exact benefits of these projects are often difficult to quantify, but they can have a positive impact on all five objectives of the New Zealand Transport Strategy.

4.2.1 Economic Development

Travel Demand Management measures will result in modal shift away from the single occupant car during peak periods. This can then reduce travel times on the roading network for those activities that rely on the road such as goods movements to and from the Port. TDM measures can also reduce or defer the need to invest in capital projects on the roading network, enabling those funds to be spent on other projects, or not spent at all. The movement of trips onto more sustainable modes also has economic benefits for the individual as these trips are often financially cheaper than using a private car.

4.2.2 Safety Benefits

Reducing the number of private car journeys will have a safety benefit as there will be fewer vehicles on the road. In particular, mode change to public transport will have significant safety benefits. While the increase in walking and cycling has the potential to increase the number of crashes for these groups, the RLTS is proposing increased expenditure in

these areas to increase the safety for these users. School Travel Plans in particular will focus on safe routes to school to increase safety for school children.

4.2.3 Accessibility and Mobility Benefits

Providing alternative modes and promoting these alternatives increases the accessibility of the community by providing transport options to those users who cannot or do not use private cars. Associated improvements to passenger transport, walking and cycling, in terms of routes and infrastructure will enable people with mobility impairments easier access to local facilities.

4.2.4 Public Health Benefits

Encouraging walking and cycling will have health benefits for those people who change to these modes. Just half an hour of exercise a day is promoted by the health sector as having significant long term personal and community health benefits. Using public transport can also have health benefits as it also encourages walking at the start and end of the trip. Furthermore, a reduction in the number of car trips will result in less car borne pollution.

4.2.5 Environmental Sustainability Benefits

Reducing the number of private car journeys and transferring these trips to modes such as walking, cycling and public transport will reduce the average greenhouse gas emissions per trip. However the major benefits are realised when households can reduce the number of cars that they own and operate and the need for major roading projects is reduced.

4.3 Meeting the Needs of the Community

The majority of the Travel Demand Management measures will be encouraging travel by walking, cycling and public transport. Accordingly, facilities for these modes have to provide a level of service that will meet the needs of all users. Furthermore, the better the facilities are for these modes, the more successful the mode change is likely to be. The walking, cycling and passenger transport strategies contains the improvements that will be undertaken under each of these modes.

Parking pricing and availability is a key aspect to travel demand management and there is a need for the community to understand this. There have been calls for increased parking provision in the central city, however any consideration of parking provision needs to consider the negative impacts this will have on the efficiencies of passenger transport.

4.4 Travel Demand Management Policies

The Travel Demand Management policies and activities for Nelson revolve around three main policy areas:

- influencing travel behaviour;
- parking management and CBD access; and
- land use planning.

4.4.1 Influencing Travel Behaviour

TDM Policy 1	Undertake travel behaviour change programmes, educational and promotional measures to reduce the use of private motor vehicles, especially in areas of traffic congestion

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Expand existing programme of school / college travel plans	Short term	•	•		•	•
Introduce "TravelSmart" programme – provision of information on alternative travel modes and methods on an individual household basis	Short term	•		•	•	•
Introduce workplace travel plans (for businesses with >100 employees)	Short term	•		•	•	•
Investigate viability of improving infrastructure which would encourage tele-working	Short term	•				•
Expand car-pooling for those areas not encompassed by public transport	Short term	•				•
Promote alternative forms of travel through media publicity campaigns, promotional events and information packs	to coincide with other PT and TDM initiatives	•		•	•	•
Commission an investigation of the available road pricing technologies, their application to Nelson and potential impacts	Long term	•				•
Investigate the application of Regional Fuel Tax in Nelson	Short term	•				•

4.4.2 Parking Management and CBD Access

The convenience and cost of parking are factors in the decisions people make when choosing their travel mode. The vitality of the Nelson urban centre should be maintained by placing a greater emphasis upon improving access for sustainable transport modes and through parking policy and controls. This requires a combined implementation approach by improving pedestrian and cycle routes to the city centre, improving the quality and quantity of public transport and making changes to parking policy and controls. Parking policy should focus on the provision of high standard parking facilities for shopper and tourist trips and the use of long-stay parking by commuters should be discouraged through the application of charges and controls.

TDM Policy 2	Use parking controls as a disincentive for long stay commuter parking in central areas.

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Develop commuter parking policy to deter long stay commuter parking in central areas	Short term	•				•

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Review Nelson Resource Management Plan parking provisions and requirements to be consistent with this strategy and the RLTS	Short term	•				•

4.4.3 Land-use planning

The location of employment, shopping and recreational activities relative to housing areas affect the demand for travel. Also, the quality and cost of travel influences decisions for these activities. The integration of land-use with transport provision has the potential to significantly affect the overall levels of demand on the transportation network.

The following policy seeks to both reduce the overall volume of travel required and promote the use of alternatives to private motor vehicles. In this way, existing infrastructure can be maintained with benefits in terms of costs, safety and environmental amenity. This policy might take many years before achieving the desired outcomes but remains an important and integral component of addressing the growth in transport demand.

TDM Policy 3	Promote the location of housing, jobs, shopping, leisure, education and community facilities and services to reduce the demand for travel and facilitate the use of transport modes other than private motor vehicles

Activity	Timing	Objective				
		ED	S	AM	PH	ES
Review Nelson Resource Management Plan rules with regard to : • the location requirements for new developments and activities; • promoting the co-location of urban developments which reduce the overall demand for travel and which are conveniently located to bus, walking and cycling networks through intensification and mixed use developments and • control of developments which adversely impact on the efficiency of transport routes	Short term	•		•	•	•

5 Travel Demand Management Activities

5.1 Promote School Travel Plans

The Council has already implemented School Travel Plans in five schools and has been credited for its work in a national arena by the achievement of a number of national awards and accolades. School travel planning aims to encourage more families to use environmentally friendly transport options to get to and from school. Programmes include walking, school bus or cycle training, and infrastructure changes such as pedestrian

crossings, traffic calming and cycle lanes as part of a 'safer routes to school' programme. They can also include provision of 'walking school buses'. Coordination with the Ministry of Education in relation to school bus routes should also be undertaken when developing plans.

School travel plans deliver a range of benefits, including:

- improved health and road awareness;
- reduced emissions and other environmental benefits; and
- economic benefits of spending less time in cars.

The New Zealand Transport Agency assists in providing guidance on the development of School Travel Plans. The implementation of these plans is usually undertaken by Council Road Safety co-ordinators.

5.2 Introduce 'TravelSmart' programme

The TravelSmart programme was first developed by the State Government of Western Australia in the mid 1990s. TravelSmart works directly with individuals in their households to help them make informed travel choices about how to get to places using their cars less and walking, cycling and using public transport more. TravelSmart also works with local communities, including local governments, schools, universities, hospitals and workplaces, to help them self-manage the process of change.

The TravelSmart process starts with the team telephoning almost every household in an area to identify those interested. The household is asked what information they would like to receive about walking, cycling and public transport and they are then delivered a personalised package of information specific to their situation (e.g. local bus service timetables and local walking and cycling maps).

In some situations, the team may even visit their home, talk to them about using public transport and offer incentives for new users of public transport. They can also arrange a personal visit by someone with practical skills and knowledge of cycling and bicycle maintenance and could even provide discount vouchers from local bike shops to help get bikes back in working order. Those people who are already using public transport, cycling or walking regularly are encouraged to continue this behaviour by rewarding them with small incentives.

5.3 Promotion of Workplace Travel Plans

Workplace travel plans are a package of measures produced by employers to encourage staff to use alternatives to single-occupancy cars.

A workplace can choose to develop a travel plan at any time, or could be required to develop a travel plan as a condition of planning consent for an expansion or new development. Typical actions in a workplace travel plan include improving facilities for pedestrians and cyclists (showers, lockers and cycle parking), promotion and subsidy of public transport, and encouraging car pooling, working from home, flexible hours and teleconferencing.

Nelson City Council could provide incentives for employers to reduce

free parking for employees and/or support sustainable forms of transport. This is an important part of workplace travel plans, but can also be undertaken separately, especially in small or medium size businesses.

Incentives could take the form of provision of vouchers for discounts at cycle shops, free passes to community facilities such as swimming pools and discounts of public transport passes to pass onto employees.

5.4 Investigation of tele-working infrastructure

The Council should investigate ways to promote tele-working i.e. employees working at home or at locations away from the office which removes the need for the daily commute, or work related travel during the day. Investment into the local broadband or wireless networks could be considered along with the provision of office space and facilities for teleworkers around the district.

5.5 Promotion of area wide car pooling scheme

A car pooling system has been set up in Nelson, but it is currently operating with only limited success. However, if it is combined with other Travel Demand Management measures, specifically TravelSmart, workplace travel plans and parking management, it is likely to be much more successful. It would also be a necessary part of these other Travel Demand Management measures as another alternative to single occupant car trips.

It should be noted that the introduction of a better public transport system will reduce the number of people who currently use the carpooling system. However, the system needs to be promoted to those not serviced by regular public transport, and to others who prefer this mode.

5.6 Promote alternative forms of travel

Individuals need to be given the appropriate information in regards to travel options before they are able to change towards more sustainable modes of travel. Information can help increase the acceptance of travel demand initiatives by assisting understanding as to why measures are being introduced and why there is a need to consider changing travel behaviour where possible.

Promotion of alternative forms of travel through various mediums should be undertaken regularly. Specific forms of promotion could include publicity campaigns, promotional events and information packs. An ideal time for promotion is prior to a travel demand management related scheme to provide information on the purpose of the measure and help to negate any potential opposition. It is also important to communicate the benefits that have been gained from travel demand initiatives once they have been implemented, as people can often be sceptical of benefits materialising.

5.7 Participate in road pricing investigations

'Road pricing' refers to a number of tools, including cordon charges, congestion charging, permit schemes and tolls. Currently, road user

pricing applies through the application of Road User Charges and taxes on fuel. However, this is a crude form of charging which does not reflect the roads which are used or the timing of trips.

Road pricing is concerned with pricing for the full economic, environmental and social costs of road use and has an objective of reducing congestion whilst also raising revenue. It is not legislated for in New Zealand at the current time. Road pricing involves motorists paying directly for driving on an existing roadway, or within a particular area.

In the longer term, road-pricing offers a more equitable means of allocating the use of road-space, which would allow charges to reflect the demand for the use of the network, in a manner similar to charging for flights, or for telephone use. In this way, the intensity of peak period demands can be reduced, resulting in a more efficient use of the available resources. Road-pricing approaches are in their infancy in New Zealand, but with the availability of the necessary technology their use in the long-term aided by appropriate legislation is likely to become an option. This Strategy acknowledges that road-pricing in the Nelson region would not occur until well into the future.

In the short term a tool that is now available is application of a regional fuel tax. From 1st August 2008 central Government introduced new powers through the Land Transport Management Amendment Act 2008 for Regional Councils to raise a new revenue stream by establishing a regional fuel tax levy. However, revenue raised from a regional fuel tax can only be spent on capital items, it cannot be used to support operational costs of passenger transport. Further investigation in this area is needed to establish the options for the region.

Nelson City Council should participate as required by the Ministry of Transport in any development and feasibility work around road pricing and as this occurs, assess their application to Nelson and their potential impacts.

5.8 Develop commuter parking strategy

A commuter parking strategy is necessary to ensure a consistent and sustainable approach to parking across the City, and in particular throughout the CBD. It should establish objectives for the effective management of parking which are consistent with Government and local policies on travel choice and sustainable development. Such objectives could include:

- regulating the cost and availability of public spaces to give higher priority to short stay parking in the CBD to support the local economy;
- controlling the supply of parking in new developments in order to support travel without using a car; and
- encouraging a reduction in workplace parking, particularly by promoting alternatives to the car through Travel Plans.

5.9 Increase all-day parking pricing

The objective of increasing the cost of all-day parking pricing is to deter long stay commuter parking and thereby encourage travel by other modes, or car sharing. Not all parking pricing should be increased as increasing short term parking costs could have a negative effect on off-peak shopper parking and hence the local economy.

5.10 Review Resource Management Plan Policies and Rules

The Nelson Resource Management Plan contains policies and rules to achieve integrated and sustainable management of natural and physical resources. The role of the Plan is to control or guide the type of land use that can occur within different parts of the region.

In order to reduce the impact that the increasing population will have on the transportation network, it is recommended that the Resource Management Plan policies and rules be amended with a view to intensifying residential and employment land use development around transportation hubs, in order to minimise commuter travel distances and maximise travel by active modes and passenger transport.

While the Nelson Urban Growth Strategy provides a strategy for intensification and preferred growth areas, these may not go far enough towards having a noticeable impact in reducing the dependence on the private car. Further reinforcement of intensification and development around transport hubs needs to be developed through policies and rules in the Resource Management Plan.

These could include, inter alia, specific rules in regards to green field development, relaxed rules for intensification and requirements for workplace and community travel plans for larger developments.

The Council should also consider changes to the car parking requirements in the Resource Management Plans to lower the minimum number of required car parks, specify a maximum number of car parks and also link parking standards directly with the provision of public transport.

6 Indicative Costs and Funding

The timing of the implementation of the TDM strategy needs to take account of the timing of proposed improvements to passenger transport and active modes. A new bus network is proposed from 2012/13. Prior to 2012/13 there will be a need to commence the introduction of selected TDM activities.

Funding assistance for Travel Demand Management activities and measures can be sought from the New Zealand Transport Agency where benefits include road cost savings, road user benefits and environmental benefits. The financial assistance rate (FAR) for activities that fit with the New Zealand Transport Agency 'Community Focused Activity' activity class is 75%. For activities involving improvements to infrastructure the applicable financial assistance rate is the Nelson City Council road construction rate (currently 53%).

Other funding sources can be considered to help implement activities

and measures. These include:

- contributions from new residential and commercial developments,
- large employers can assist with workplace travel plans,
- revenue from car parking,
- regional fuel tax levy (note- revenues can only be spent on capital items)

7 Monitoring and Review

It is acknowledged that NCC will need to work with New Zealand Transport Agency and Tasman District Council on many of the TDM initiatives as there is a large amount of overlap between responsibilities, especially in regard to the commuter movement from Tasman to Nelson City.

Promoting TDM will require an ongoing commitment from Nelson City Council. If implemented without subsequent promotion, monitoring or fine tuning, the impact on travel behaviour will diminish. Furthermore, many of the measures could require a long period of promotion before a significant take up is achieved.

A monitoring programme will be set up to determine the effectiveness of the TDM activities and measures implemented. While it may not be easy to quantify the exact impact many of the activities and measures are having, qualitative monitoring will provide excellent feedback as to which activities and measures are being supported by the community and which need further refinement. Monitoring will also need to measure other effects which influence or have an indirect impact on the uptake of TDM (for example fuel prices, vehicle ownership, public transport patronage, regulation changes etc.).

In addition to the monitoring specific to the TDM, many of the targets being monitored for the Regional Land Transport Strategy will give a good indication as to the overall effectiveness of the TDM strategy in conjunction with the other transport projects in the region.