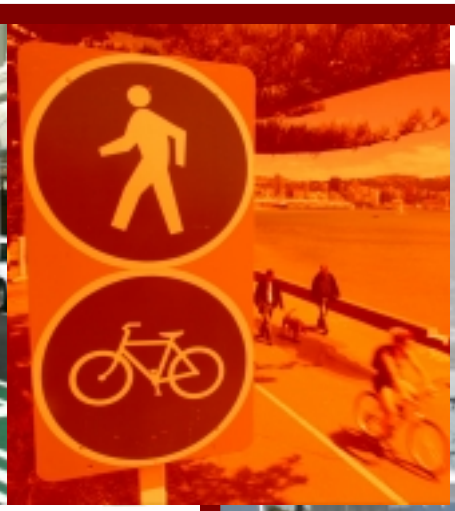
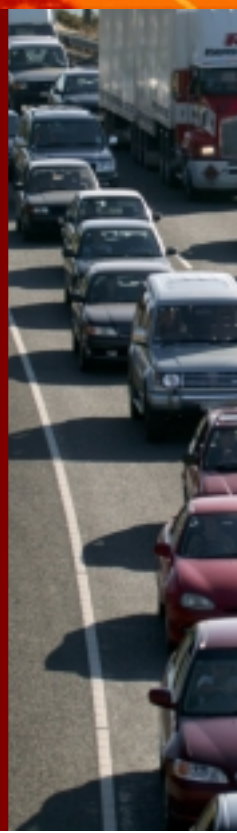
2002/2003 Annual Report on the Regional Land Transport Strategy

September 2003

Quality for Life

greater WELLINGTON
THE REGIONAL COUNCIL | Transport





2002/2003 Annual Report
on the Regional Land Transport Strategy

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Highlights

- With an index base year of 1996, the greater Wellington region shows steady economic growth, with the growth rate being higher than that of Canterbury, Auckland and New Zealand as a whole (refer Indicator 2.1.4).
- All transport-related perceptions measured in Wellington are 'better' than similar indicators measured in Auckland (refer Sections 4-7).
- Regional public transport patronage continues to show strong growth (refer Indicator 4.1.16).
- Greater Wellington's congestion levels are the lowest of all major Australasian cities measured (refer Indicator 4.1.6a).
- Congestion on Wellington roads has worsened over the past year and will continue to get worse unless the transport network is used more effectively. Fifty percent of people surveyed believe that road congestion is worse than it was two years ago (refer Indicator 4.1.6d).
- The region's road safety numbers continue to be too high and in the past year have begun to increase. Eighty-five percent of people feel 'safe' when using cars; 70% when walking; but only 29% think that cyclists are 'safe' (refer Indicators 7.1.3, 7.1.9, 7.1.7b and 7.1.6b).
- Of the 'active' transport modes, cycling continues to have a considerably lower level of use than walking (refer Indicator 4.1.2).
- The composite transport index as an indicator of overall travel demand continues to show strong growth (refer Indicator 3.2.1).
- Implementation of the Regional Land Transport Strategy (RLTS) continues to be slower than anticipated, primarily due to issues relating to the Resource Management Act (1991), uncertainty about urban rail ownership and the lack of an appropriate legal framework to enable the early construction of Transmission Gully motorway (refer Section 10).
- Funding available from both central and local levels of government continues to be lower than anticipated in the RLTS (refer Section 6).
- Present and future demands reinforce the need for reliable connections to and through the region (refer Indicators 4.1.12 and 4.1.13).
- The private car continues to be the dominant mode of transportation. This will require a balance in the construction of new infrastructure and changes in patterns of use (refer Indicators 4.1.2, 4.1.8 and 4.1.18).

Greater Wellington Regional Council gratefully acknowledges support from numerous agencies that supplied information for the monitoring exercise.

2003 Regional Land Transport Report Card

The following report card has been developed to clearly identify our desired key outcomes and to show how well we are doing. It highlights that while good progress is being made in some areas there are significant challenges that remain unanswered.

	Desired Outcome	2003 Result
Improve access	Reduced road congestion	x
	Increased road accessibility	x
	Increased public transport accessibility	✓
	Implemented cost-efficient projects	✓
	Improved safety	x
Improve sustainability	Reduced fuel use and emissions	x
	Increased public transport use	✓
	Matching adjacent capacity	?
	Reduced emergency risk	?
	Increased walking and cycling	✓

✓	Significant improvement
✓	Improvement
?	Insufficient information
x	Decline
X	Significant decline

1 Background to the report

1.1 Statutory context

1.1.1 Regional Land Transport Strategy

The Land Transport Act (1998) requires every regional council to establish a Regional Land Transport Committee (RLTC). This committee must prepare a Regional Land Transport Strategy (RLTS). The current RLTS[1] was approved in November 1999, fulfilling legal obligations for the period 1999 to 2004 and setting out objectives, policies and plans for the 20 years to 2019.

The RLTS is a 'living' document. After submissions and hearings, the Western Corridor Implementation Plan was adopted as an addition to the RLTS on 4 July 2000. Other corridor studies such as the Hutt Valley corridor study are in development.

1.1.2 Annual monitoring report

An annual report must be prepared on progress towards implementing the RLTS. An annual monitoring report (AMR) must be available within three months of the end of the financial year to which it relates; for the Greater Wellington Regional Council (GWRC), this is 30 June and hence this AMR is due 30 September. All indicators measured, unless otherwise stated, relate to financial years ending at 30 June.

1.2 Annual monitoring report contents

1.2.1 Enhanced monitoring

The law offers little specific guidance on what an AMR should contain. GWRC sees value in monitoring that goes beyond minimal legal requirements, reporting on trends in a range of demographic variables that drive transportation demand, both within the region and across its boundaries.

Extensive reporting on road and public transport network performance, and on environmental measures, yields a detailed picture of regional performance, sustainability and trends.

Benchmarking ourselves against New Zealand's other two largest regions with significant transport issues – Auckland and Canterbury – allows us to see how well we are doing at a national level, and gives some indication as to where regional New Zealand transport issues are heading as a whole.

A regional perception survey in 2003 adds further value to the largely objective data presented in previous reports by offering an understanding of public perceptions of transport-related issues. The 1,000-person telephone survey was carried out by National Research Bureau Ltd in July 2003. We have benchmarked this information against Auckland Regional Council (ARC), which carries out similar surveys.

Making this information available as a single resource will, in turn, facilitate more informed regional planning decisions. This AMR contains all information necessary to meet legal requirements; it also presents indices that encapsulate performance indicator trends to give a picture of the entire regional transportation network.

1.2.2 Take 10 Targets

GWRC, through the development of its 2003/04 Long Term Council Community Plan (LTCCP), has developed a series of long-term 'Take 10 Targets' relating to transport sustainability. The targets relate to:

- fuel consumption
- public transport safety
- road congestion
- mode of transport to work
- cycling and walking short trip use.

These targets have been included in this report as a first step towards integrating LTCCP targets with RLTS targets.

In some cases, data demonstrates that we are well on the way to achieving set goals in commuter transport mode choice, but are a way off in other areas such as the use of pedestrian or cycle modes for short trips. Regional fuel consumption also shows a steady rise, which will need to be curbed if we are to achieve our Take 10 Targets.

[1] The Wellington Regional Land Transport Strategy 1999-2004 (Wellington Regional Council, 1999)

1.3 Section outlines

Section 2 presents the changing demographic variables driving regional land transport demand.

Section 3 presents measures of passenger and freight transport activity across Wellington regional boundaries.

Sections 4 to 8 describe regional transportation network performance in respect of each RLTS objective area:

- accessibility and economic development
- economic efficiency
- affordability
- safety
- sustainability/environment.

Section 9 details progress in implementing RLTS projects and policies.

Section 10 summarises progress in implementing the strategy and identifies obstacles.

Section 11 presents conclusions and recommendations.

1.4 Obstacles to collecting monitoring indicators

Most agencies co-operated in supplying information for the monitoring programme, and GWRC gratefully acknowledges this. Sometimes, however, relatively straightforward information proved very hard or impossible to obtain.

While scoping the survey work, it became clear that collecting key information on air and surface water quality would be expensive. Such surveys are, therefore, more cost-effectively combined with other monitoring initiatives being promoted by the Environment Division of GWRC and the Ministry for the Environment. The need to co-ordinate these initiatives has delayed the survey programme and has meant that the first GWRC transport air quality monitoring station, anticipated to be located at the intersection of Willis and Vivian Streets, Wellington city, will not be operational until October 2003. It is anticipated that data from this site will be ready for reporting in the 2003/04 AMR.

We continue to investigate surface water monitoring options, and are optimistic a programme will be established within the next few years in conjunction with the GWRC Environment Division.

2 Regional demographic indicators

This section sets out and discusses trends in the following regional demographic variables driving transport demand:

2.1.1 Resident population
2.1.2 Occupied dwellings
2.1.3 Unemployment
2.1.4 Regional economic activity
2.1.5 Building activity
2.1.6 Vehicle ownership.

2.1 Indicators

2.1.1 Resident population

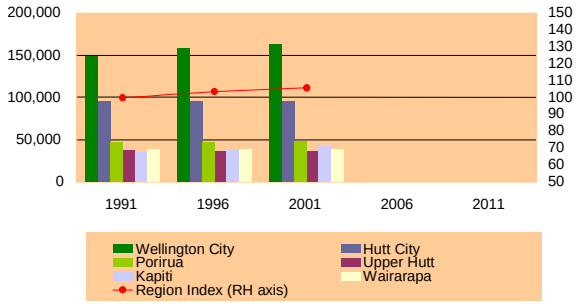

Figure 1: 1991 = 100. Source: Statistics New Zealand

Definition: The graph shows usually resident populations by district. Census data is collected five-yearly, so this indicator will next be updated in the 2007/08 AMR.

Interpretation: The total 2001 regional population was 423,700. Thirty-eight percent lived in Wellington City; 32% in the Hutt Valley; 11% in Porirua; 10% in Kapiti; and 9% in Wairarapa.

Table 1 shows wide variation in district growth rates. Kapiti has seen at least 2% annual growth since 1991, while the Hutt Valley and Wairarapa have experienced de-population. Regional population growth has averaged 2,342 people per annum since 1991, with a slight slowing since 1996. Current growth is 0.5% per annum (2001 figures).

Comments: Population growth in the region is modest. Population growth fuels regional demand for travel. Kapiti's faster growth is partly driven by families relocating from Wellington and elsewhere in the region. This strong growth will create further demand for travel both within Kapiti and between Kapiti and Wellington, putting the existing transport networks under more strain.

District	Growth rates per annum					
	1991 – 1996		1996 – 2001		1991 – 2001	
	No.	%	No.	%	No.	%
Wellington	1,856	1.3	1,221	0.8	1,538	1.0
Hutt City	198	0.2	-79	-0.1	60	0.1
Porirua	16	0.0	149	0.3	83	0.2
Upper Hutt	-34	-0.1	-69	-0.2	-51	-0.1
Kapiti	729	2.1	772	2.0	751	2.1
Wairarapa	-17	0.0	-60	-0.2	-38	-0.1
REGION	**2,749**	**3.4**	**1,934**	**2.3**	**2,342**	**6.0**

Table 1: Population growth rates, by district

2.1.2 Occupied dwellings

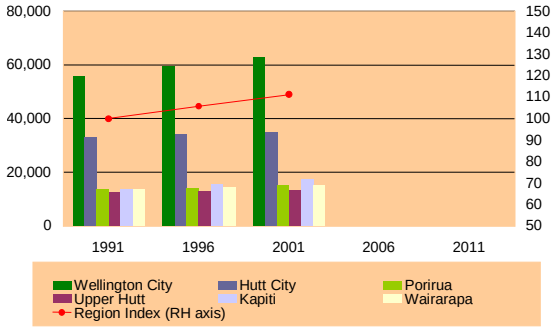

Figure 2: 1991=100. Source: Statistics New Zealand

Definition: The graph shows occupied dwellings by district. Census data is collected five-yearly, so this indicator will next be updated in the 2007/08 AMR.

Interpretation: Patterns of absolute and relative growth are closely linked to population. Table 2 shows movements in the average number of people per occupied dwelling, derived from 2.1.1 and 2.1.2. Household size is falling across the region; the largest households are in Porirua, the smallest in Kapiti, reflecting this area's large retirement-aged population.

District	Number of persons per occupied dwelling		
	1991	1996	2001
Wellington	2.7	2.7	2.6
Hutt City	2.9	2.8	2.8
Porirua	3.4	3.3	3.2
Upper Hutt	3.0	2.9	2.7
Kapiti	2.6	2.5	2.4
Wairarapa	2.8	2.7	2.6
REGION	**2.8**	**2.8**	**2.7**

Table 2: Change in number of persons per occupied dwelling, by district

2.1.3 Unemployment

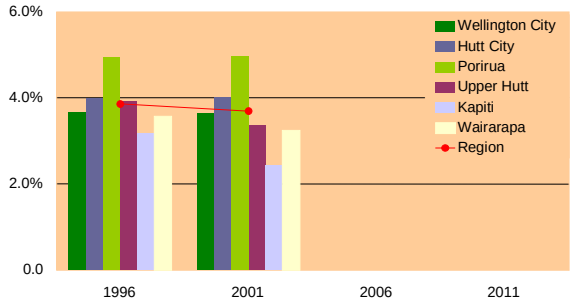

Figure 3: Source: Statistics New Zealand

Definition: The graph shows district labour force status, with unemployment as a percentage of population. Census data is collected five-yearly, so this indicator will next be updated in the 2007/08 AMR.

Interpretation: A downward regional trend masks inter-district differences. Unemployment rates have fallen most markedly in Upper Hutt, Kapiti and Wairarapa, while Porirua has experienced a small increase. Porirua unemployment rates are the highest in the region.

Comments: Data is available for only two years, and apparent trends should be treated with caution. Transportation demand is likely to be inversely correlated with unemployment rates: the highest levels of unemployment result in the lowest levels of transportation demand.

2.1.4 Regional economic activity

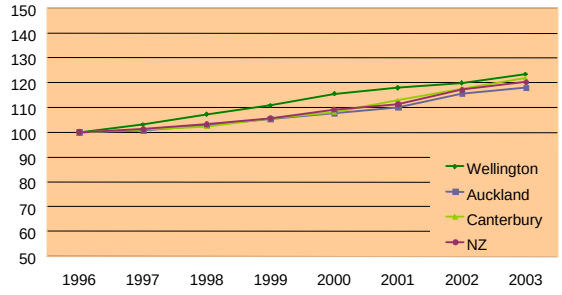

Figure 4: 1996 = 100. Source: National Bank

Definition: The graph shows a composite measure of economic activity that includes: business and consumer confidence; retail sales; new motor vehicle registrations; regional exports; registered unemployment; building permits; real estate turnover; job advertisements; accommodation; and results from the Household Labour Force Survey.

Interpretation: Relative to the 1996 base year, there has been steady regional growth of 23% between 1996 and 2003. Over the past year, at 2.5% growth, Wellington's growth rate has been identical to the average for New Zealand, down on Canterbury's rate of 3.3% and above Auckland's of 1.7%.

Comments: Indications are that the Wellington region is enjoying robust economic activity in line with the rest of the country. It can be expected to increase demands for movement of people and freight.

2.1.5 Building activity (no. consents, Wellington region)

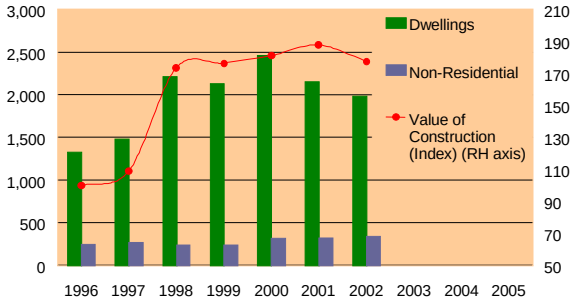

Figure 5: 1996 = 100. Source: Statistics New Zealand

Definition: The graph shows the number of residential and non-residential building permits issued. Figures are available monthly.

Interpretation: Since 2000, growth in the issue of residential permits has slowed, while issues of non-residential permits have continued to grow. While the 'value of construction index' has fallen with the decline in residential permits, the regional housing market continues to boom, in line with the overall national housing market.

Comments: The construction industry itself generates demand for transport as well as being a 'barometer' of regional economic activity. Demand for travel (both freight and passenger) is positively correlated with regional economic activity.

2.1.6 Vehicle ownership by household: Change 1996 to 2001

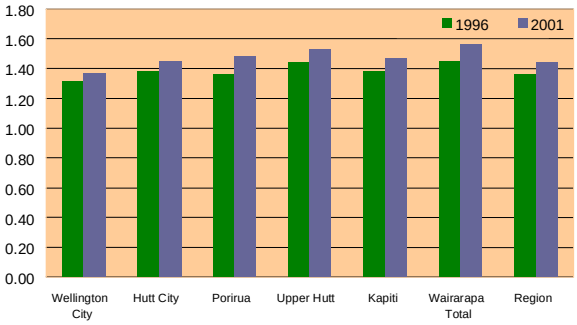

Figure 6: Source: Statistics New Zealand

Definition: The graph shows census figures which are available five-yearly, so this indicator will next be updated in the 2007/08 AMR.

Interpretation: Over the five years from 1996 to 2001, the average number of cars per household rose from 1.37 to 1.44, or 5%. Levels of car ownership correlate inversely with urban density: the lowest levels are in Wellington City, the highest in Wairarapa. Car ownership grew in every district, with the highest rate (9%) in Porirua and the lowest in Wellington city (4%).

Comments: Increasing car ownership leads to greater car use and more demands on the road network.

2.2 Demographic summary

2.2.1 Demographic indices

Figure 7 summarises these indicators relative to the base year 1996.

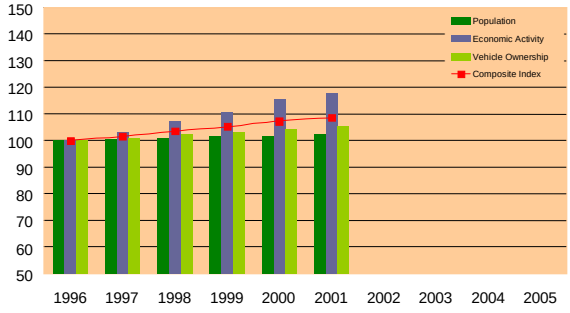

Figure 7: Regional demographic indices, 1996 = 100. Sources: Statistics New Zealand, National Bank of New Zealand

2.2.2 Regional level

Over the five years from 1996 to 2001, regional population grew by 2%, while vehicle ownership increased by 6%. This stems from the continuing relatively low cost of vehicle operation and increasing economic activity: 17% in the same period.

The rate of growth in the composite index (the average of three indices: population, economic activity and vehicle ownership) was 1.7% to 1.8% per annum from 1998 to 2000, declining to 1.4% in the 2000 to 2001 period, due mainly to a slackening rate of economic activity.

As the focal point of economic activity, and home to 38% of the 2001 regional population, Wellington city has a strong influence on regional figures.

2.2.3 Sub-regional level

Population has declined in Wairarapa and Upper Hutt, while Kapiti's population has grown. There has been little change in unemployment rates, which remain highest in Porirua and elsewhere show a steady decline. Growth rates of vehicle ownership are lowest in Wellington city, reflecting a trend for inner-city apartment living and proximity to employment. Conversely, the highest rates and growth of vehicle ownership are in the more remote Wairarapa and Upper Hutt areas.

Highest rates of growth continue in the western corridor serving Kapiti, while Wairarapa and Hutt Valley growth remains relatively subdued. The trend towards CBD living can be expected to suppress growth in travel demand. This is offset by the desire of many to live outside the Wellington urban area, so increasing demand for peak-time commuter travel.

2.2.4 Outlook

These trends are, in general, expected to continue. To a large extent, however, transport demand is driven by factors over which the RLTS has no control, such as fuel prices and economic activity.

There is optimism in Upper Hutt that upcoming developments will reverse population decline, and this might have a secondary impact on Hutt City. Porirua is having some success attracting 'high tech' industries and retailers. These trends may influence the pattern, as well as the total scale, of regional travel demands.

2.2.5 Implications for transportation planning

Transportation demand is expected to rise markedly, driven by population growth and economic activity. Current initiatives to discourage peak-period car use (Rideshare, telework etc) rely mainly on persuasion and are unlikely to affect travel behaviour more than marginally. Ultimately, tolls, congestion pricing and parking fees will be needed to give travellers direct financial incentives to change their behaviour and ensure the network can efficiently accommodate transportation demand.

3 Inter-regional travel indicators

This section sets out and discusses trends in total travel to and from the Wellington region according to the following indicators:

3.1.1 Inter-regional passenger movements
3.1.2 Inter-regional freight movements.

3.1 Indicators

3.1.1 Inter-regional passenger movements

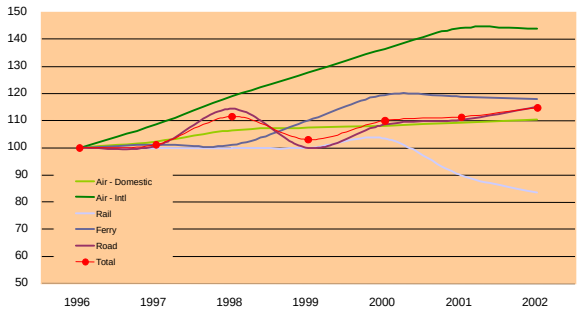

Figure 8: 1996 = 100. Sources: Wellington International Airport; Interisland Line; Tranz Rail; Transit New Zealand

Definition: The graph shows available figures relate to numbers of people crossing regional boundaries by air, sea (Interisland ferries only), rail or road (buses are excluded because information is unavailable). An average vehicle occupancy factor has been applied to road traffic counts. Wellington airport's function as a domestic network hub results in many movements not destined for or originating in the region, but counted as crossing regional boundaries.

Table 3 shows absolute numbers of travellers; figures for the Interisland Line and Tranz Rail have been omitted to protect commercial confidentiality.

Mode	Number of persons (million) in 2002
Air – domestic	3.5
Air – international	0.4
Rail	N/A
Ferry	N/A
Road (except buses)	10.4

Table 3: Number of inter-regional passengers, by mode (2002)

Interpretation: Road transport dominates passenger movement to and from the region. The growth of air travel is volatile, affected by airline industry changes and competition. Rail passenger numbers continue to decline, perhaps as competition between rival inter-city airlines heats up. Overall, there is a positive trend, with a 15% increase in total passenger trips between 1996 and 2002, and a 3% increase between 2001 and 2002.

Comments: Road-based travel is vital to the region. Despite this, the two main routes, state highways (SH) 1 and 2, offer poor service and are vulnerable to closure in the event of an earthquake.

3.1.2 Inter-regional freight movements

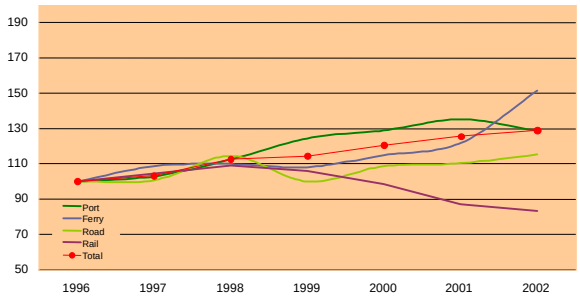

Figure 9: 1996 = 100. Sources: CentrePort; Interisland Line; Transit New Zealand, Tranz Rail, Strait Shipping

Definition: The graph shows freight is measured in a range of non-comparable units. For this reason, and because some data is commercially confidential, absolute numbers are not given. The aggregate measure is based on several assumptions and for indicative purposes only. It is hoped that the volume and quality of available information in this area will improve. Much recorded freight does not have a regional origin or destination and is counted twice in the figures; for example, a container of logs may enter the region by road and leave by sea. Air freight figures (other than the number of non-passenger flight movements, which is considered unreliable) are also unavailable.

Interpretation: Ferry freight grew markedly between 2001 and 2002 (25%), although much of this apparent growth can be attributed to the inclusion of data supplied by Strait Shipping. Conversely, rail freight has shown a continual decline since 1996. However, the overall trend is strong growth, with the aggregate measure suggesting 29% growth over the measured period.

Comments: Strong freight movement growth has occurred despite accessibility problems to and from Wellington on state highways. This reinforces the need to maintain and improve the quality and reliability of the state highway network.

3.2 Demographic summary

3.2.1 Inter-regional travel indices

Figure 10 shows movement in indices for inter-regional passenger and freight movements and a composite index (an average). All are expressed relative to a base year of 1996.

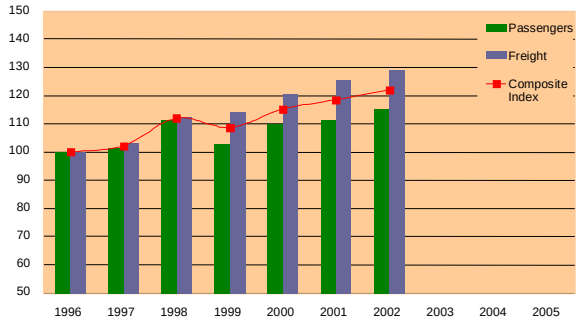

Figure 10: Total movements to/from region (indices), 1996 = 100. Sources: Wellington International Airport Limited, Interisland Line, Tranz Rail, Transit New Zealand, CentrePort and Strait Shipping

3.2.2 Regional level

Total passenger movements grew by 15% between 1996 and 2002, although the pattern was not one of constant growth. The 1999 drop was attributable to a decline in road traffic volume over the year. Freight movements in the same period grew by 29% and at a more continuous rate. Composite index growth is 22% or 3% per annum.

The figures should not be taken entirely at face value: passengers and freight passing through the region and crossing its boundaries twice are counted twice.

The main routes to and from the region, SH1 and SH2, account for around two-thirds of passenger movements across the regional boundary. SH1 accounts for approximately 85% of total movements, highlighting the road's significance to the whole region.

Road passenger movements grew by 15% between 1996 and 2002, while domestic air travel grew by around 18%. Growth in ferry and international air travel was high at around 18% and 44% respectively, reflecting strong growth in tourism travel and more, direct international air services.

Rail travel plays only a small part, with the single long-distance service being daytime and night-time trains to and from Auckland, and the Capital Connection to and from Palmerston North. The Napier service was discontinued in 2001. Rail passenger movements declined steadily between 1996 and 2002, dropping 16% over the period.

Total freight moved through CentrePort shows strong growth of 29% since 1996. Over the same period, the Interisland ferry services have significantly increased their freight carriage by over 50%. Road freight has increased by around 15% over the period, although not at a constant rate. Air freight shows a small reduction, and rail freight reduced by 15% between 1996 and 2002.

3.2.3 Sub-regional level

The figures are, by definition, regional totals, hence disaggregation by district is impossible.

3.2.4 Outlook

The tourism market is expected to remain buoyant for the foreseeable future; this will contribute to growth in all passenger modes, especially the Interislander ferry services.

Road traffic and freight levels correlate strongly with regional economic activity, so steady growth is expected.

Inter-regional rail passenger and freight movements are expected to continue to decline in the face of stiff competition from highly competitive internal air passenger services and a deregulated road freight environment.

3.2.5 Implications for transportation planning

Demand for passenger and freight movement to and from the region is expected to grow steadily over the next few years. The predominance of road-based travel requires reliable connections, particularly the SH1 corridor to the north of Wellington. Access to the port, ferry terminal and airport will also become critical as traffic to and from these destinations increases.

4 Accessibility and economic development indicators

This section sets out and discusses items relating to the RLTS accessibility and economic development objective: *to provide a transport system that optimises access to and within the region.* It considers the following performance indicators:

4.1.1 Perceptions of network reliability
4.1.2 Mode use
4.1.3 Short trip active mode use
4.1.4 Perceptions about the ease of walking
4.1.5 Perceptions about the ease of cycling
4.1.6 Travel time performance indicators
4.1.7 State highway screenline traffic volumes
4.1.8 Wellington CBD cordon counts
4.1.9 Road traffic hourly profiles
4.1.10 Heavy vehicles on key routes
4.1.11 State highway vehicle kilometres
4.1.12 Road network usage
4.1.13 Road network level of service
4.1.14 Vehicle occupancy on Wellington CBD cordon
4.1.15 Key route travel times – public transportation
4.1.16 Public transport service patronage
4.1.17 Wellington CBD cycle and pedestrian movements
4.1.18 Mode of journey to work
4.1.19 Parking supply in CBD.

4.1 Indicators

4.1.1 Perception of network reliability

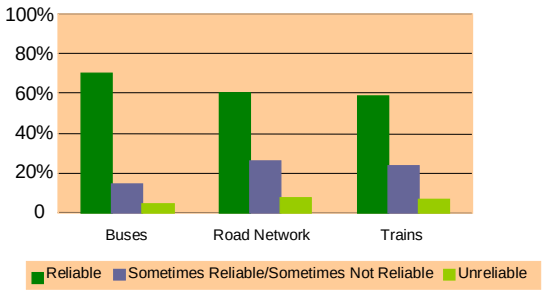

Figure 11: How reliable do you think the regional transport networks are? Source: GWRC perception survey, 2003

Definition: The graph shows how people rate the reliability of the main commuter transport networks.

Interpretation: The bus network is rated as the most reliable, with over 70% of respondents stating it is reliable, followed by the road network (60%). Interestingly, almost 60% of respondents thought the train network was reliable, despite services being disrupted over summer because of heat buckling.

Comment: Transport networks need to be seen as reliable if they are to be used. Well over 50% of the population see the key public transport networks in the region as reliable, yet many still choose to use private vehicles for transport. Other factors must be leading to their mode choice.

4.1.2 Mode use

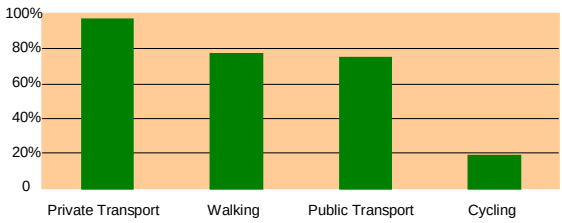

Figure 12: Over the last six months, have you made any of your trips in the region by? Source: GWRC perception survey, 2003

Definition: The graph shows how many people have used the four main forms of transport in the past six months.

Interpretation: 97% of respondents said they had made trips in the previous six months by private transport; 78% by walking; and 75% by public transport. Only 19% said they had made a trip by cycle.

Comment: It is expected that many people will have used private transport. The Wellington CBD and indeed other regional cities are very pedestrian-friendly environments, so again it is not surprising that many people have made walking trips. It is not surprising that many people have not cycled, and this issue is further discussed further in section seven. It has been identified that this question needs a clearer definition in future (ie, to specify it means short trips of up to 2km).

4.1.3 a: Short trip active mode use

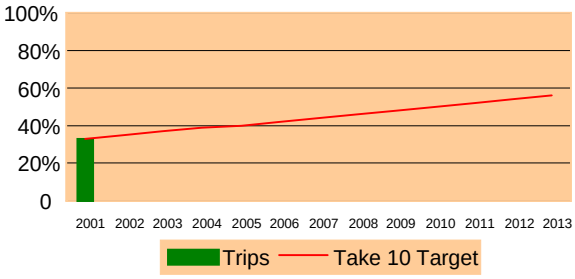

Figure 13: Percentage of trips less than 2km made by pedestrian or cycling modes. Source: GWRC household survey, 2001

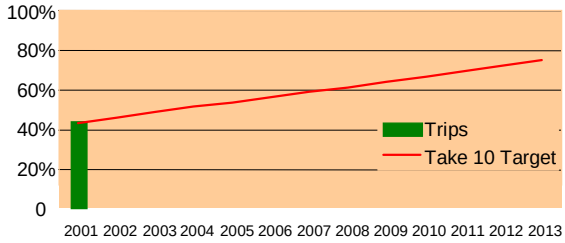

Figure 14: Percentage of trips less than 1km made by pedestrian or cycling modes. Source: GWRC household survey, 2001

Definition: The graphs show how the percentage of short trips by the active modes of cycling and walking compare with the GWRC Take 10 Targets. As this data is collected as part of an expensive survey, its collection is only justified as part of a strategic model calibration exercise once per decade. The next survey is planned for 2011.

Interpretation: 33% of people made trips of less than 2km by the active modes of cycling or walking, and 44% made trips less than 1km by the same modes.

Comments: The Take 10 Target is that 75% of all trips up to 1km are walked or cycled and 56% of all trips up to 2km are walked or cycled by 2013. While already a relatively high number of people make short trips by active modes, the GWRC aims to encourage significantly more trips by these modes.

4.1.3 b: Short trip active mode use

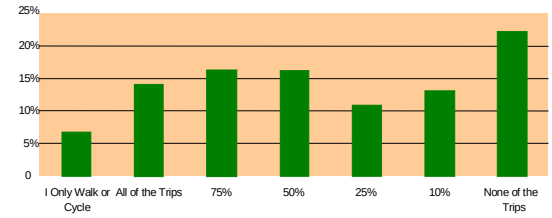

Figure 15: What amount of your current short trips could just as easily be walked or cycled? Source: GWRC perception survey, 2003

Definition: The graph shows how many short trips respondents believed they could just as easily walk or cycle.

Interpretation: 34% of respondents said that half or more of their trips could just as easily be walked or cycled, while only 22% of respondents said that none of their trips could be.

Comment: This question is designed to gather an understanding of how many short trips people are currently undertaking that by their own reckoning could just as easily be undertaken by the active modes of walking or cycling. Interestingly, over a third of people said that most (50% or over) trips could just as easily be walked or cycled, while nearly a quarter said that none of their trips could be walked or cycled. GWRC aims to encourage active mode use to reach the Take 10 Targets in Indicator 4.1.3a.

4.1.4 Perceptions about the ease of walking

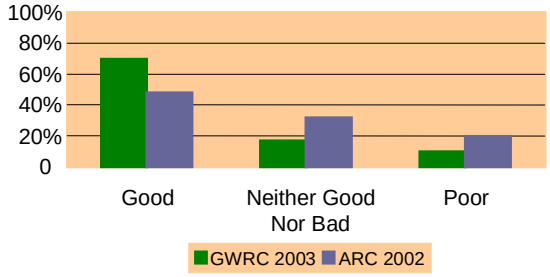

Figure 16: How 'hassle free' is getting around the region by walking? Sources: GWRC and ARC perception surveys

Definition: The graph shows how easily people find it to get around the region by walking, and this is compared with Auckland.

Interpretation: 70% of Wellingtonians believe that getting around the region by walking is easy, over 20% more than their Auckland counterparts. Twenty percent of Aucklanders believe that getting around their region by walking is difficult, 10% more than their Wellingtonian counterparts.

Comment: This question offers an understanding of how easily people see getting around the region by the active walking mode. A perception that using this mode is difficult can lead people to use less active modes.

Most Wellingtonians believe that getting around the region by walking is relatively easy, but the same cannot be said of our Auckland counterparts. This result is to be expected as Wellington's regional cities and towns are geographically small in scale, whereas Auckland has generally sprawled over the landscape as it has grown.

4.1.5 Perceptions about the ease of cycling

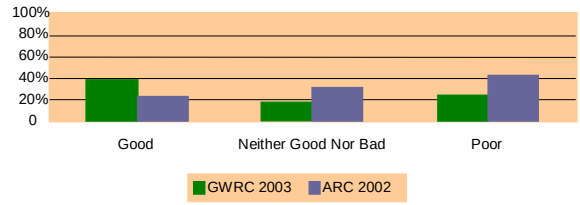

Figure 17: How 'hassle free' is it to get around the region by cycling? Sources: GWRC and ARC perception surveys

Definition: The graph shows how easily people find it to get around the region by cycling, and this is compared with Auckland.

Interpretation: Almost 40% of Wellingtonians believe that getting around the region by cycle is easy, 15% more than their Auckland counterparts. Forty-three percent of Aucklanders believe that getting around their region by cycle is difficult, 18% more than their Wellingtonian counterparts.

Comment: This question offers an understanding of how easily people see getting around the region by the active cycling mode. A perception that using this mode is difficult can lead people to use less active modes.

Most Wellingtonians and Aucklanders believe that getting around their respective regions by cycling is relatively difficult. However, many more Wellingtonians (38%) than Aucklanders believe it is easy to get around the region by cycle; 43% of Aucklanders said cycling around the region was difficult. This result clearly indicates the need for improved cycling facilities throughout the region to provide greater comfort for users of this mode.

4.1.6 Travel time performance indicators

Overview: Travel time performance indicators were established for Wellington in 2002 in conjunction with Transit New Zealand and the Ministry for the Environment.

Their methodology is based on the Austroads 'travel time performance methodology', and involves floating car travel time surveys carried out on a sample of Wellington's strategic and regional arterial networks in May and November each year.

The performance indicators are used to monitor changes in travel time and congestion on a year-to-year basis, and to allow direct comparison with other Australasian cities using the surveys.

Travel times have been surveyed on the following representative regional routes:

Route 1: Paraparaumu – Wellington airport
Route 2: Upper Hutt – Wellington airport
Route 3: Porirua – Seaview (via SH58)
Route 4: Karori – Island Bay.

These routes differ slightly from those measured in 2002, as it was identified that a number of 'pinch points' on the network were missed. These new routes are not expected to change in the future, so reliable trends will emerge.

This information yields congestion, measured as minutes of delay per kilometre travelled (CGI), for the morning peak period (AM), inter-peak period (IP) and afternoon peak period (PM) (Indicator 4.1.6a) and average network speeds (Indicator 4.1.6b).

4.1.6 a: Travel time performance indicators: CGI comparison

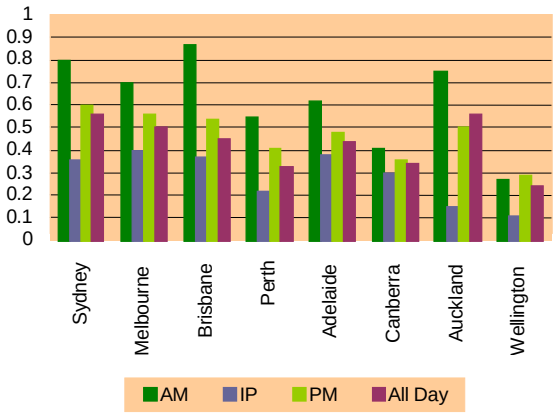

Figure 18: Comparison of CGI (mins delay/km travel).
Note: Data relating to Wellington and Auckland is for November 2002, while data for the Australian cities is the latest available, 2001. Source: Transit New Zealand

Interpretation: Wellington's congestion as recorded by the November 2002 travel time surveys was .27, AM; .11, IP; .29, PM; and .20 all day. When directly compared with congestion in Auckland, Wellington's congestion is considerably less, with Wellingtonians experiencing almost 30 seconds less delay per kilometre in the morning peak than their Auckland counterparts. The gap between the two regions is even more significant once account is taken of the average journey length and the number of journeys made.

Comments: While the data reflects the level of service the road network offers, the fact that it is averaged out over the whole measured network means localised problems are masked. Wellington compares very favourably with all cities measured in Australasia, having the lowest overall level of congestion.

The pattern of congestion in Wellington appears to be a short peak period over the network, with a number of pinch points such as the Paremata Roundabout and the merge of SH1 and SH2 at Ngauranga. Auckland's high and continually rising congestion levels may be the result of the city's critically loaded network, which means that even small events can lead to disproportionately large effects on the network.

4.1.6 b: Travel time performance indicator: Key route travel times by road

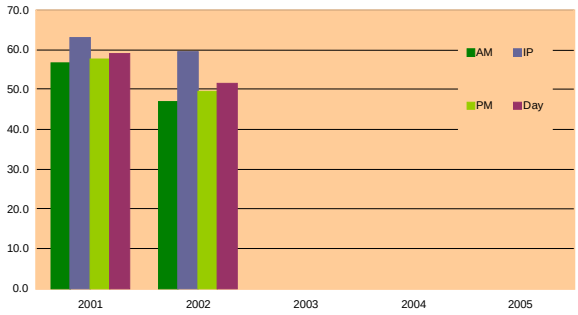

Figure 19: Network average vehicle speeds (km/h). Source: Transit New Zealand

Interpretation: As the routes were changed in 2003, comparisons with the 2002 results should be avoided. Trends will be established from future surveys with reference to the 2002 results. The 2002 information shows the effects of morning and evening peak period congestion; average speeds are down approximately 21% on the inter-peak period.

Comments: Results reflect the level of service the road network offers. These are the average results of the surveyed routes, which mask localised problem areas where congestion occurs.

4.1.6 c: Travel time performance indicator: Greater Wellington regional congestion

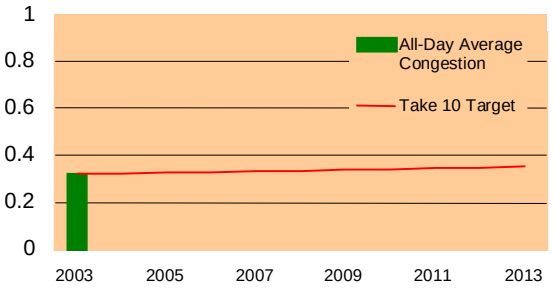

Figure 20: Greater Wellington regional congestion (mins delay/km travelled). Source: Transit New Zealand

Definition: The graph shows all-day average congestion on Wellington's roads compared with the GWRC Take 10 Target.

Interpretation: This target was established in 2003, so no interpretation can yet be made.

Comments: The Take 10 Target is based on congestion not increasing by more than 1% per year, from 2003.

4.1.6 d: Travel time performance indicator: Perceptions about the state of congestion

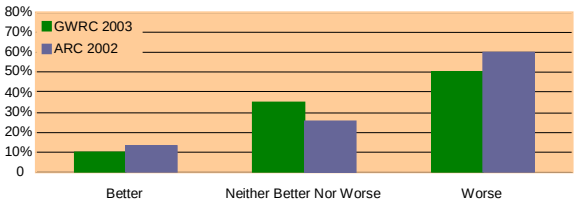

Figure 21: Do you think traffic congestion is better than it was two years ago? Sources: GWRC and ARC perception surveys

Definition: The graph shows how Wellingtonians and Aucklanders believe traffic congestion has changed over the past two years.

Interpretation: Fifty percent of Wellingtonians consider congestion has worsened over the past two years. While this is slightly more favourable than the Auckland result, it indicates that Wellington's congestion is still of significant concern.

Comments: Until future surveys are carried out, it is impossible to compare results. Anecdotal evidence suggests that both Auckland's and Wellington's congestion is getting worse, but further data is needed to measure the extent.

4.1.7 State highway screenline traffic volumes

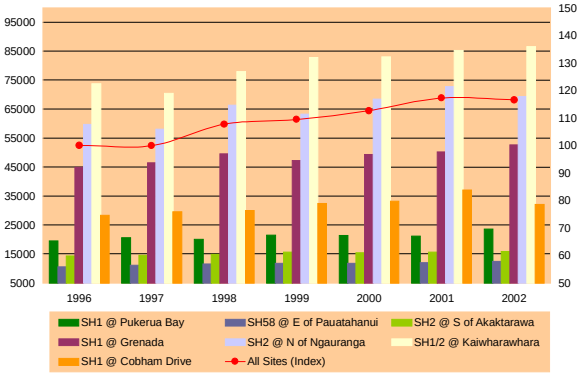

Figure 22: State highway screenline traffic volumes, AADT, 1996 = 100. Source: Transit New Zealand

Definition: The graph shows annual average daily traffic (AADT) volumes derived from automatic counters operating on each road section over a calendar year. Results must be interpreted cautiously since many vehicles are counted several times, depending on their route through the network. Counts record only vehicles on the network; vehicle trips that are avoided because of perceived congestion cannot be quantified.

Interpretation: Traffic volumes appear to have declined slightly since 2001. However, traffic

volumes in 2002 are about 16.5% above 1996 levels, representing an annual growth rate of just under 3%.

Comments: Demands on the road network continue to grow significantly. Initiatives encouraging the use of public transport, especially for peak period commuter trips, remain important, but road travel will continue to be the region's predominant form of transport. The network requires balanced improvements in capacity and efficiency to accommodate demand properly.

4.1.8 Wellington CBD cordon counts

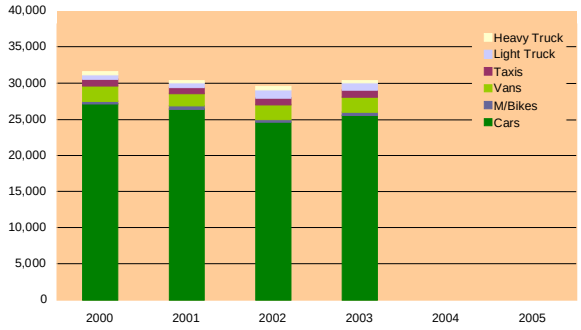

Figure 23: Wellington CBD cordon inbound traffic volumes weekday AM two-hour peak. Source: Wellington City Council

Definition: Wellington City Council commissions classified counts in March and October each year. The information displayed in this graph shows results for March only. The 'cordon' comprises Oriental Parade, Majoribanks Street, Elizabeth Street, Pirie Street, Cambridge Terrace, Buckle Street, Tasman Street, Taranaki Street, Cuba Street, Victoria Street, Willis Street, Aro Street, Abel Smith Street, Vivian Street, Ghuznee Street, Dixon Street, The Terrace, Boulcott Street, Aurora Terrace, Bolton Street, Bowen Street, Hill Street, Hawkestone Street, Murphy Street, Hobson Street, Thorndon Quay and Aotea Quay. Traffic heading into the city is counted during the two-hour morning commuter peak. Buses are not counted.

Interpretation: Total inbound road traffic volumes increased by 2.8% between 2002 and 2003. Cars and light utility vehicles comprised more than 83% of the total 2003 vehicle flow; heavy trucks around 1%.

Comments: After three years of decline, peak period commuter private car use for journeys into Wellington increased slightly in 2003.

4.1.9 a: Road traffic hourly profiles, 2002

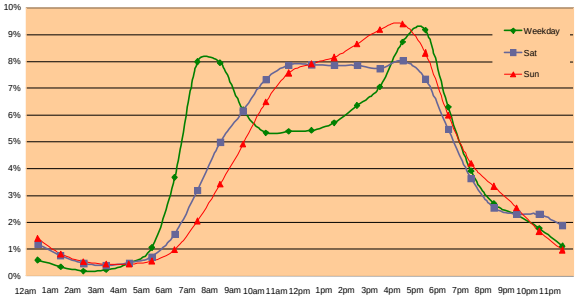

Figure 24: Hourly traffic profiles by day of week, 2002. Source: Transit New Zealand

Definition: The graph shows daily flow distribution over the course of each day, averaged across state highway network sites for which information is available. Hourly flow is presented as a percentage of daily traffic volume.

Interpretation: This analysis uses combined two-way traffic volumes. Directional volumes would show more pronounced peaks, especially in the direction of commuter traffic volumes.

Comment: At this stage, the usage pattern reflects traditional morning and evening weekday commuter peak periods, when traffic volumes are between 8% and 10% of daily flow. Weekend profiles are quite different: Saturdays show a broad peak between 10am and 6pm, while the Sunday peak occurs in the late afternoon as people return home.

As the graph below shows, there was almost no change in the profiles between 2001 and 2002.

4.1.9 b: Road traffic hourly profiles, 2001

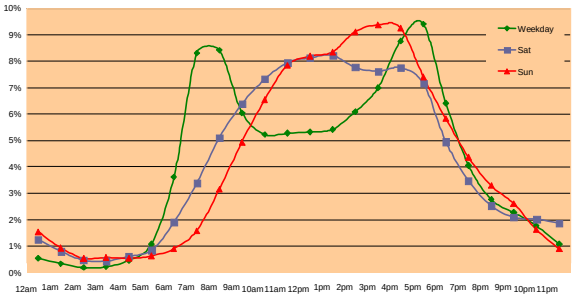

Figure 25: Hourly traffic profiles by day of week, 2001. Source: Transit New Zealand

4.1.10 Heavy vehicles on key routes

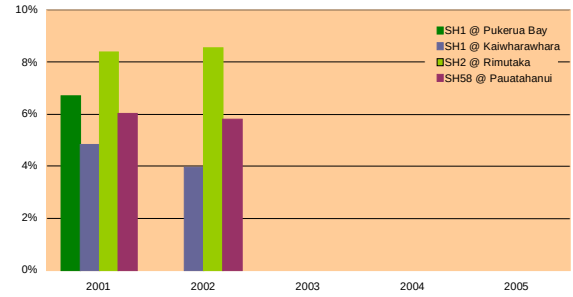

Figure 26: Indicator C6a: % heavy vehicles on major routes (weekdays). Sources: GWRC, Transit New Zealand

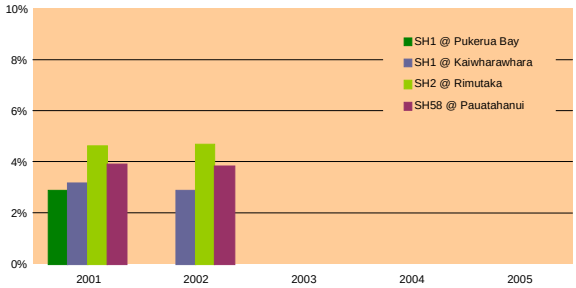

Figure 27: Indicator C6b: % heavy vehicles on major routes (weekends). Sources: GWRC, Transit New Zealand

Definition: Data for the above graphs displaying heavy vehicle percentages is obtained from permanent telemetry sites recording throughout the year. The sites record the length of each vehicle, with anything more than 5.5 metres defined as 'heavy'. 2002 data for the Pukerua Bay site was not available.

Interpretation: Heavy vehicles make up a greater proportion than light vehicles of total traffic demand at more remote locations, such as SH2 at Rimutaka. The number of heavy vehicles using this route on weekdays grew by 2% between 2001 and 2002, while falling 3% on the Pauatahanui route and 18% on the Kaiwharawhara route.

Closer to the city and during weekends, there are more light vehicles on the network, resulting in lower absolute and percentage figures for heavy vehicles.

Comments: It is vital that the regional road network provides for heavy vehicles to support commercial activities and make accessible key destinations such as the port and airport.

4.1.11 State highway vehicle kilometres

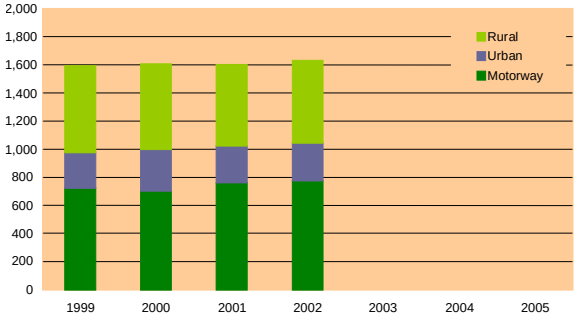

Figure 28: State highway vehicle kilometres travelled (millions). Source: Transit New Zealand. Note: Information for 2002 is draft

Definition: The graph shows information that Transit New Zealand gathers from traffic counters to determine total vehicle kilometres travelled (VKT) annually on each section of regional state highway. Information for 2002 is draft only and subject to confirmation.

Interpretation: Currently available total figures show negative growth from 1999 to 2002 (-0.4% compared with the 6.6% growth in state highway traffic volumes shown by Indicator 4.1.7). This apparent inconsistency needs further investigation, although it may be partially explained by an increase in shorter-distance travel. Table 4 shows that nearly half of state highway travel is occurring on the motorway system.

District	State highway network, 2002	
	Percentage of network	Percentage of VKT
Motorway	18.8	47.5
Urban	17	16.5
Rural	64.2	36
REGION	**100**	**100**

Table 4: State highway network characteristics, Wellington region, 2002

Comments: State highway network loadings vary widely by location; rural Wairarapa requirements are very different from those of central Wellington. Continued monitoring is needed to ensure state highway network components give the best service possible within topographical and financial constraints.

4.1.12 Road network usage

Overview: The Wellington Transport Strategic Model (WTSM) road network comprises the main arterial and some secondary roads throughout the greater Wellington region. Reporting results for this full network obscure the results for roads that have the greatest impact on results – those considered 'critical' in moving people and freight on the roads between the major destinations in the region.

For this reason, three strategic routes have been identified:

- Western Strategic Network: SH1 from Waikanae to Ngauranga
- Eastern Strategic Network: SH2 from Kennedy Good Bridge to SH1 at Ngauranga, Hutt Road from Hutt City to Petone, Melling Link and The Esplanade at Petone
- Southern Strategic Network: SH1 from Ngauranga through to the airport, Hutt Road, Thorndon Quay, Aotea Quay and waterfront route through Basin Reserve to Wellington Hospital via Adelaide Road.

These results are shown on the following map. Modelled results are used for Indicators 4.1.12 and 4.1.13.

Figure 29: WTSM model network (2021), Wellington, Porirua and Hutt Valley. Source: Greater Wellington Regional Council

4.1.12 a: Expected network usage

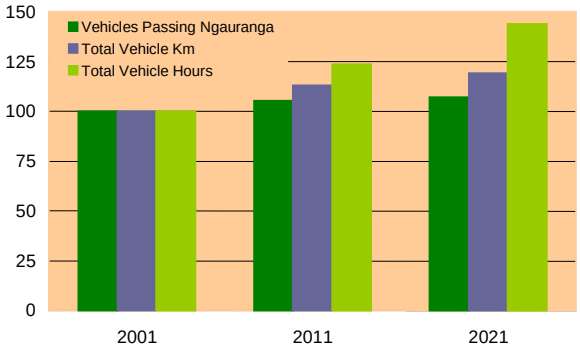

Figure 30: Modelled network usage, Western Strategic Network, AM peak period (index 2001 = 100). Source: WTSM

Definition: The graph shows information derived from WTSM, which has been confirmed by observation rather than measurement or survey. Future year forecasts should be taken as indicative only. The model comprises sub-models for the weekday morning and afternoon commuter peaks, and the period between these peaks (the inter-peak period). Totals cover the entire modelled regional network, including all principal routes. Minor local roads are not included.

Interpretation: The Western Strategic Network, comprising SH1 from Ngauranga to Waikanae, is expected to experience greater growth in the total number of trips than any other part of the strategic network. If road and traffic conditions stay as they are, changes in the number of vehicles should be matched by similar changes in VKT and hours. Forecasts indicate that, by 2021, vehicle hours (up 44%) will increase much faster than VKT (up 19%), while the number of vehicles will increase by only 7%. Total travel times are expected to increase as congestion worsens. Total travel distances will rise as a result of location changes (families moving to rural areas) and in response to congestion (seeking faster but longer routes).

Comments: The road network faces increasing demands as traffic volumes and travel distances increase. Over the next few years, higher rates of growth can be expected in inter-peak periods as commuters choose to travel outside traditional peaks.

4.1.13 Road network level of service

Overview: Information is derived from GWRC's transportation strategy model, which has been confirmed by observation rather than measurement or survey. Future-year forecasts should be taken as indicative only. The model comprises sub-models for the weekday morning and afternoon commuter peaks, and the inter-peak period. It compares forecast traffic volumes with network capacity, thus identifying 'levels of service' (LOS). The US Highway Capacity Manual defines this term, but the assessment here is based on the following 'proxy' measures (the calculated volume-to-capacity ratios for each section of road):

LOS A: primarily light traffic, free-flow conditions
LOS B: mostly light traffic, some disruptions
LOS C: some permanent queuing at intersections
LOS D: high volumes, delays due to congestion
LOS E: operation at capacity
LOS F: over-capacity – breakdown of traffic flow.

Graphs show the percentage length of road network operating at each LOS. In general, the AM peak period has lower LOS than the PM or inter-peak period. For this reason, results for the AM peak period are shown.

4.1.13 a: Road network level of service: Full strategic network

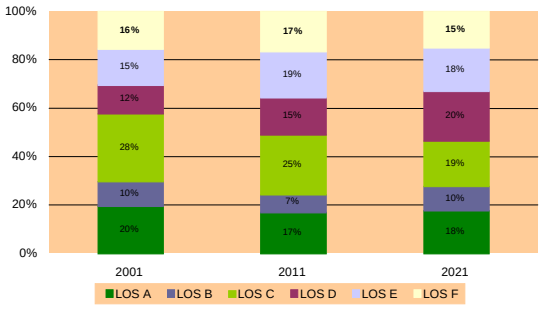

Figure 31: Road network LOS, full network, AM peak period. Source: WTSM

Definition: The graph shows the complete modelled network, which comprises the main arterial and some secondary roads throughout the greater Wellington region.

Interpretation: The percentage of the road network at LOS E or F remains below 5%. More than 75% of the modelled network operates at LOS A or B in the morning peak.

Comments: Reporting results for this full network obscure the results for the roads that have the greatest impact on results – those considered 'critical' in moving people and freight on the roads between the major destinations in the region.

4.1.13 b: Road network level of service: Southern strategic network

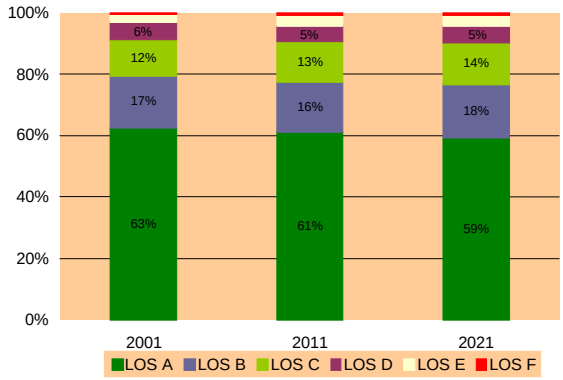

Figure 32: Road network LOS Southern Strategic Network, AM peak period. Source: WTSM

Definition: The graph shows LOS on the Southern Strategic Network (Ngauranga – Airport).

Interpretation: This part of the network, comprising the main roads from Ngauranga southwards to the airport and hospital, is expected to experience the worst LOS of any section of the region's roading network. In the morning peak, more than 30% of the modelled network has demand close to or above its capacity. This is expected to worsen through to 2011, before getting slightly better by 2021 with the expected installation of the Ngauranga to Aotea Tidal Flow system on SH1. The proportion of the Southern Strategic Network that is not subject to some form of permanent queues is below 30%. Increasing traffic demands will eventually erode LOS as congestion becomes worse and affects a wider area.

Comments: Without improved efficiency or capacity, LOS will progressively deteriorate as traffic demands grow. The results will be greater congestion in existing problem areas and the spread of congestion to areas now operating satisfactorily.

4.1.14 Vehicle occupancy on Wellington CBD cordon

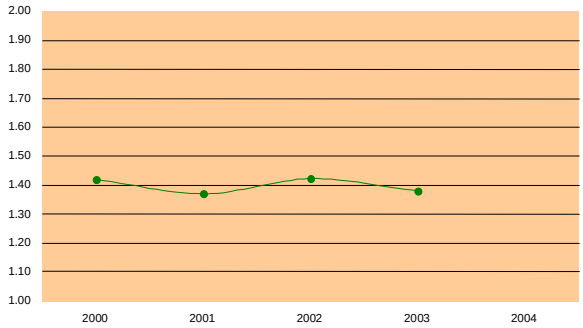

Figure 33: Wellington CBD cordon inbound traffic occupancy – weekday AM peak, two-hour. Source: Wellington City Council

Definition: Wellington City Council commissions surveys in March and October each year. Information is presented for March only. The cordon comprises Oriental Parade, Majoribanks Street, Elizabeth Street, Pirie Street, Cambridge Terrace, Buckle Street, Tasman Street, Taranaki Street, Cuba Street, Victoria Street, Willis Street, Aro Street, Abel Smith Street, Vivian Street, Ghuznee Street, Dixon Street, The Terrace, Boulcott Street, Aurora Terrace, Bolton Street, Bowen Street, Hill Street, Hawkestone Street, Murphy Street, Hobson Street, Thorndon Quay and Aotea Quay. Only traffic heading into the city is counted during the two-hour morning commuter peak, and figures show average numbers of vehicle occupants. Buses are not counted.

Interpretation: Reliable trends cannot be established because data does not yet cover a long enough period. Typical occupancy is approximately 1.4 people per vehicle.

Comments: The high proportion of single- or double-occupancy vehicles represents an inefficient means of transportation. An emphasis on moving *people* rather than *vehicles* would significantly improve efficiency. Initiatives such as the GWRC Rideshare programme aim to address this issue.

4.1.15 Key route travel times – public transportation

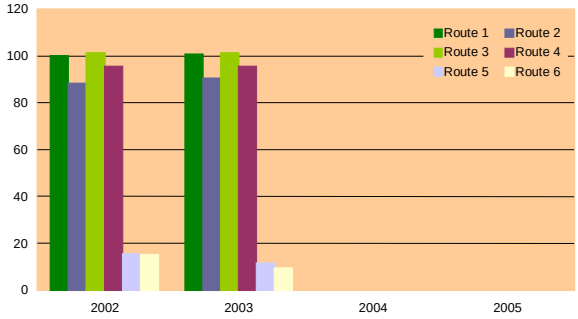

Figure 34: Public transport travel time (AM peak period, in mins). Sources: Bus/rail timetables, survey

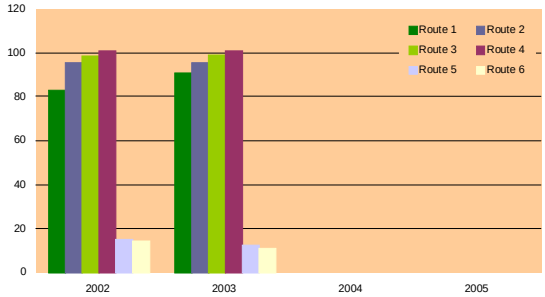

Figure 35: Public transport travel time (inter-peak period, in mins). Sources: Bus/rail timetables, survey

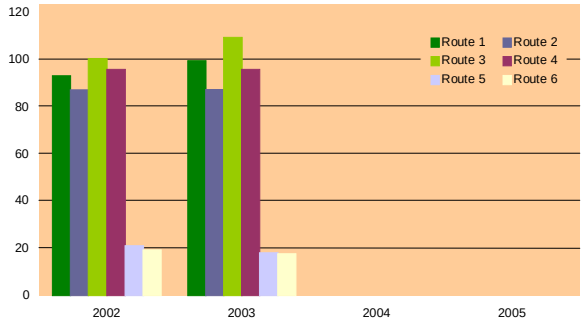

Figure 36: Public transport travel time (PM peak period, in mins). Sources: Bus/rail timetables, survey

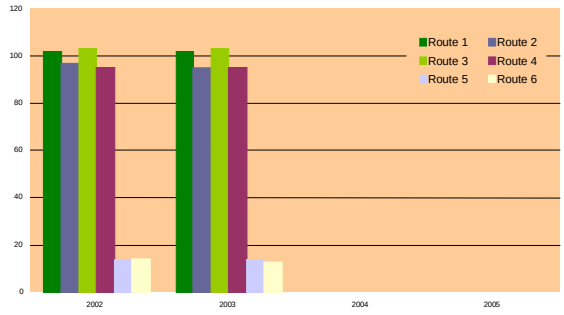

Figure 37: Public transport travel time (Saturday, in mins). Sources: Bus/rail timetables, survey

Definition: Travel times derive from timetables for routes 1 to 4. Routes 5 and 6 face congestion in the Golden Mile (Lambton Quay to Courtenay Place), rendering timetables unreliable; information on these was collected by survey. The graph shows routes covered, which are:

Route 1: Upper Hutt – Wellington Airport (rail/bus)
Route 2: Wellington Airport – Upper Hutt (bus/rail)
Route 3: Paraparaumu – Wellington Airport (rail/bus)
Route 4: Wellington Airport – Paraparaumu (bus/rail)
Route 5: Courtenay Place – Railway Station (bus)
Route 6: Railway Station – Courtenay Place (bus).

Interpretation: The installation of bus lanes along the Golden Mile has led to a decrease in travel times between 2002 and 2003. This time reduction is most noticeably seen in inter-peak travel times, which dropped an average of 31% between 2002 and 2003.

Comments: High LOS on the public transport network is required to encourage travellers to switch from private cars, especially for the peak-period commute to work. This requires measures to reduce bus travel time variations, and better integration between bus and rail services to minimise the 'cost' of interchange to many passengers.

In general, journey times are longer during off-peak and weekend periods, as there is reduced service frequency and trains stop at all stations along each route. Bus travel times along the Golden Mile are significantly higher for the afternoon peak because of congestion at several points.

Changes in the Stagecoach Flyer bus timetable and Hutt Valley train line have led to increased travel times on the Paraparaumu – Airport and Upper Hutt – Airport routes.

4.1.16 Public transport service patronage

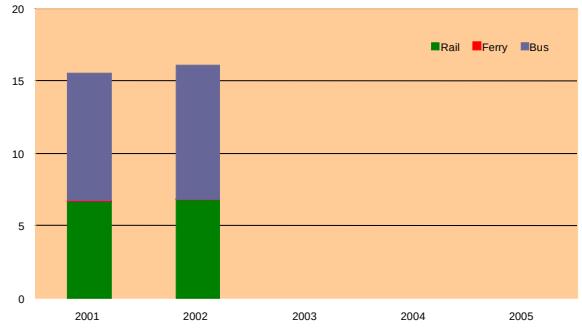

Figure 38: Indicator C12a: Public transport patronage: no. of trips (millions), by mode, peak period. Source: GWRC

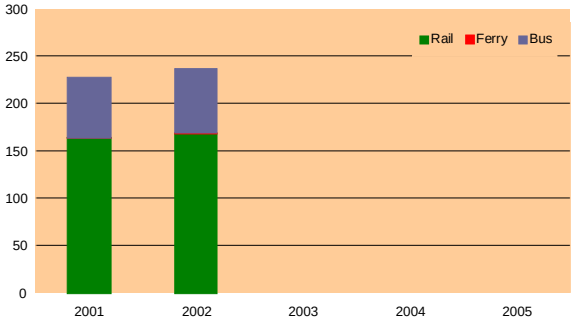

Figure 39: Indicator C12b: Public transport patronage: passenger km (millions), by mode, peak period. Source: GWRC

Definition: GWRC collates information on public transport patronage for the funding system. The graph shows total distances for passengers travelling on the main public transport modes.

Interpretation: Full information is currently only available for calendar years 2001 and 2002; however, a strong trend in growth is emerging even within this small time period. For example, peak passenger numbers have increased by 3.8%, or over 600,000 people, in the past year, while off-peak passenger numbers have increased by an even larger amount, of 5% or over 700,000 more people.

Buses account for most journeys by public transport (57% in peak periods). However, rail trips are typically three to four times longer so account for most passenger kilometres (71% in peak periods).

Comments: Demands on the road network continue to grow significantly. Initiatives encouraging the use of public transport, especially for peak-period commuter trips, remain important, but road travel will continue to be the predominant form of regional transport. Travel demands will only be met by balanced improvements to network capacity and efficiency.

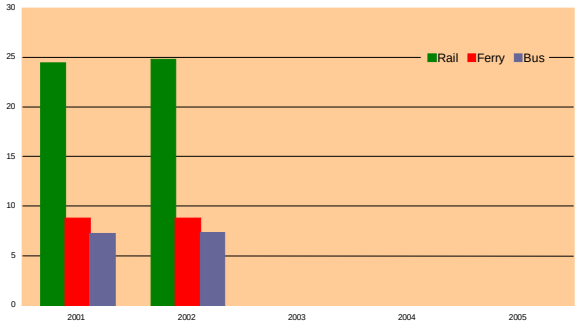

Figure 40: Public transport patronage: average trip length (km) by mode, peak period. Source: GWRC

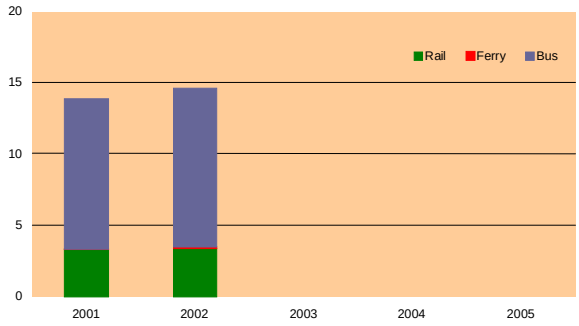

Figure 41: Public transport patronage: no. of trips (millions), by mode, off-peak period. Source: GWRC

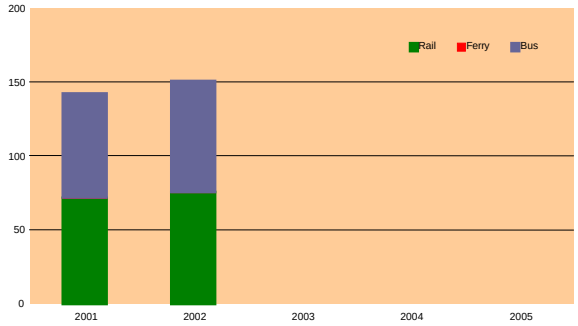

Figure 42: Public transport patronage: passenger km (millions), by mode, off-peak. Source: GWRC

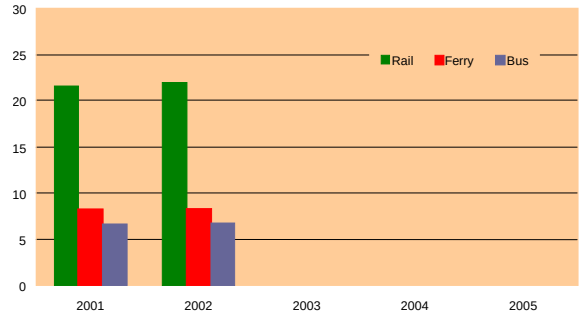

Figure 43: Public transport patronage: average trip length (km) by mode, off-peak period. Source: GWRC

4.1.17 Wellington CBD cycle and pedestrian movements

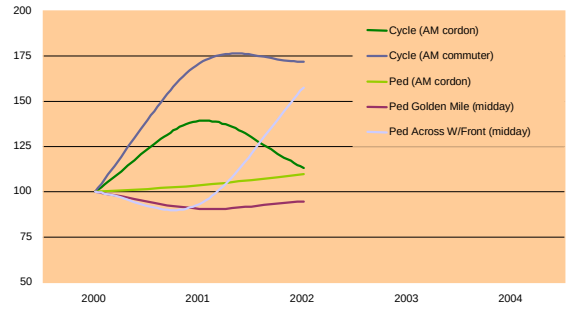

Figure 44: Wellington pedestrian and cycle movements weekday, two-hour period (2000 = 100). Source: Wellington City Council

Definition: The graph shows results from the cordon and screenline location surveys that Wellington City Council undertakes every March and October. Information here is for March only, and no information is available for other local authority areas. The following aspects are surveyed:

- pedestrians inbound to the central city during the morning peak period
- cycles inbound to the central city during the morning peak period
- cycles at suburban locations during the morning peak period
- pedestrians along the Golden Mile during weekday lunch-times
- pedestrians between the CBD and waterfront during weekday lunch-times.

Interpretation: Cycle and pedestrian counts vary widely according to weather conditions when surveyed. More reliable trends will eventually be established.

Comments: Walking and cycling are becoming more popular means of travelling to work. Demands must be accommodated and encouraged by the provision of safe and convenient networks for pedestrians and cyclists.

4.1.18 Mode of journey to work

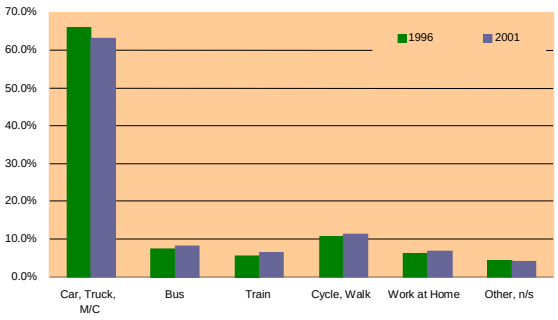

Figure 45: Main mode of journey to work, 1996, 2001. Source: Statistics New Zealand

Definition: The graph shows the main mode of travel to work for the regional population on census day. Census information is collected five-yearly and covers a single day. Data is available for 1996 and 2001, so this indicator will next be updated in the 2007/08 AMR.

Figure 46: People travelling into Wellington CBD by private car, truck or van. Source: Statistics New Zealand

Definition: The graph shows the percentage of people travelling into the Wellington CBD on census day. Census information is collected five-yearly and covers a single day. Data is available for 1996 and 2001, so this indicator will next be updated in the 2007/08 AMR. A Take 10 Target is that 'less than 45% of work trips into central Wellington are made by private car'.

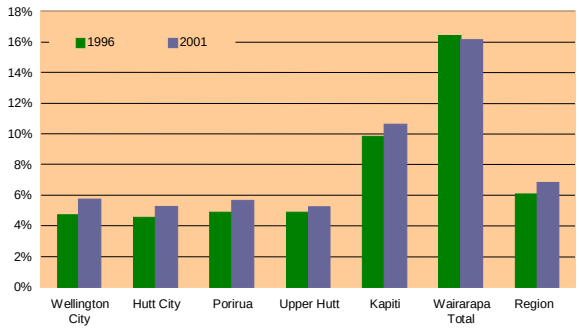

Figure 47: % of people working who work at home, 1996, 2001. Source: Statistics New Zealand

Definition: The graph shows the percentage of people working from home on census day. Census information is collected five-yearly and covers a single day. Data is available for 1996 and 2001, so this indicator will next be updated in the 2007/08 AMR.

Interpretation: These results must be interpreted with care; reliable trends cannot be established from two data points, particularly as yearly results are influenced by the weather on census day. While private cars still account for nearly two-thirds of journeys to work, there appears to have been a shift towards public transport and active modes (walking, cycling). The percentage of those working from home has increased in all districts except Wairarapa. Between the 1996 and 2001 censuses the percentage of people travelling into the Wellington CBD by private vehicle fell by 8% to 45%, thus reaching the Take 10 Targets.

Comments: The decrease in numbers of car journeys to work is encouraging. Technological advances that make it easier for people to work from home or to telework at least some days each week are reducing peak period traffic demands.

4.1.19 a: Parking supply in CBDs

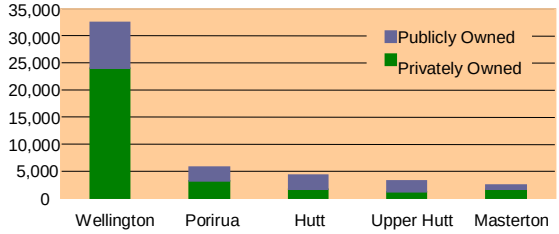

Figure 48: Greater Wellington city centre parking supply. Source: 2003 Booz Allen Hamilton parking report

Definition: The graph shows data supplied from a GWRC-commissioned Booz Allen Hamilton report on parking supply in city centres. The data should only be taken as indicative of parking supply in the region.

Interpretation: Wellington city has the largest number of carparks in the region, with a total of 32,000, of which 25,000 are privately owned. Parking supply in the other regional centres is not significant from a regional perspective.

Comments: The availability and cost of city centre parking are factors taken into account by residents when deciding on the mode to use to travel to work or shopping/leisure. As the city with the most employees, Wellington has the largest number of carparks available.

4.1.19 b: Parking supply in Wellington CBD: perceptions of number needed

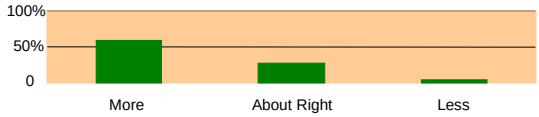

Figure 49: Perceptions of Wellington CBD parking supply. Source: GWRC perception survey, 2003

Definition: The graph shows what people think about the number of carparks available in the Wellington CBD.

Interpretation: Some 60% of respondents think there should be more carparks in Wellington; almost 30% think the number is about right; and only 4% think there should be fewer.

Comments: It is not surprising that people would like more carparks in the city, as anecdotal evidence suggests that finding a convenient carpark can be difficult. This result is positively correlated with the results from the survey below, asking about the cost of parking.

4.1.19 c: Parking supply in Wellington CBD: perceptions of parking prices

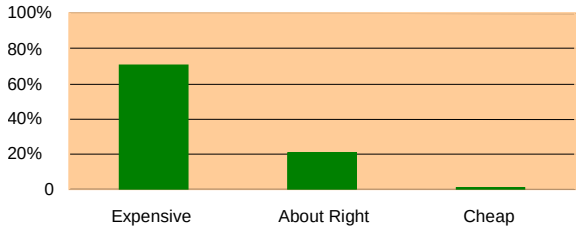

Figure 50: Perceptions of Wellington CBD parking pricing.
Source: GWRC perception survey, 2003

Definition: The graph shows what people think about the cost of car parking in the Wellington CBD.

Interpretation: The graph shows that over 70% of people think that parking is too expensive; just over 20% think the cost is about right, and only 3% think it is cheap.

Comments: Parking pricing is a way of deterring people from driving into city centres. The fact that over 70% of people think that parking is expensive and 60% think parking supply is constrained demonstrates a level of parking constraint already operating in the Wellington CBD.

4.2 Demographic summary

4.2.1 Accessibility and economic development indices

With different accessibility and economic indicator data available in different years, it is impossible to plot the movement in these indices or the composite index (the combined average of indices). However, it is hoped that a full data set will be gathered for the 2003/04 AMR, and a base year recorded from then. Figure 51 shows movement in the road traffic volumes index, information on which is available for every year from 1996 (the base year).

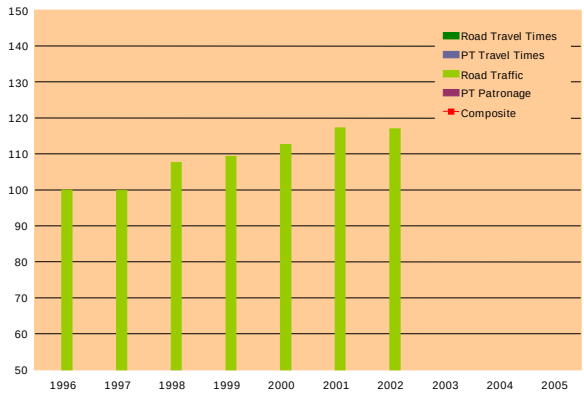

Figure 51: Accessibility and economic development (indices), 1996 = 100

4.2.2 Regional level

State highway traffic volumes increased by around 16.5% between 1996 and 2002, although they fell by 1.8% between 2000 and 2001. VKT on the state highway network increased by 2.45% between 1999 and 2000. This apparent anomaly is partially explained by an increase in average length per vehicle journey, a trend forecast by the regional transportation model for the inter-peak period.

Model forecasts indicate that by 2021 on the Western Strategic Network, vehicle hours (up 44%) will increase much faster than VKT (up 19%), while the number of vehicles will only increase by 7%. Also, more than 75% of the modelled network is anticipated to operate at LOS A or B (free-flow conditions or some minor delays) in the morning peak. There is not enough information on which to establish trends in vehicle occupancy or cycle/pedestrian movements.

Census results suggest that fewer people in the Wellington region are travelling to work by private car, although this mode still accounts for around 70% of journey-to-work trips. There have been corresponding gains in walking, cycling and public transport. More people are also now working from home, as technological advances release them from working in offices.

4.2.3 Sub-regional level

Trends cannot be established for many indicators, as insufficient information is available.

Wairarapa had the highest 2001 rate of home working at 16.2%, followed by Kapiti at 10.6%. The rate for all other areas was between 5% and 6%. The strongest growth in home working between 1996 and 2001 was in Wellington (26%) and Porirua (25%), and the lowest in Wairarapa (2%).

An average regional decrease of -2.7% in the use of private cars for journeys to work in proportion to total trips to work from 1996 to 2001 masks regional variations between Wellington (-5%) and Wairarapa (+1%).

4.2.4 Outlook

Daily traffic volumes will continue to grow by around 3% to 4% per annum, with some decline in the proportion of private car journeys to work.

Take-up rates of home and teleworking are likely to continue, driven by demands for lifestyle change, although this will have a marginal effect on regional travel demands. Slow modes will remain variable day to day, but their use is expected to increase along with a growing awareness of their potential health benefits and improvements in more cycle and pedestrian networks.

4.2.5 Implications for transportation planning

The Wellington region's dispersed development means the private car will be the dominant form of transport in the foreseeable future. Traffic volumes will grow alongside economic activity.

Increasing traffic demand will not be met without the construction of significant new infrastructure. RLTS proposals seek to maximise road network efficiency while encouraging travellers to use public transport for appropriate journeys. Current measures are relatively passive and rely on voluntary behavioural change. It is likely that direct incentives, such as road charges, congestion pricing and tolls, will be required in future to change travel behaviour.

5 Economic efficiency indicators

This section sets out and discusses items relating to the RLTS economic efficiency objective: *to implement the most efficient options and to ensure that all users of land transport are subject to pricing and non-pricing incentives and signals which promote decisions and behaviours that are, as far as possible, in accordance with efficient use of resources and of optimal benefit to the user.* It considers the following performance indicators:

5.1.1 Road network congestion costs
5.1.2 Public transport user costs
5.1.3 Vehicle operating costs

5.1 Indicators

5.1.1 Road network congestion costs

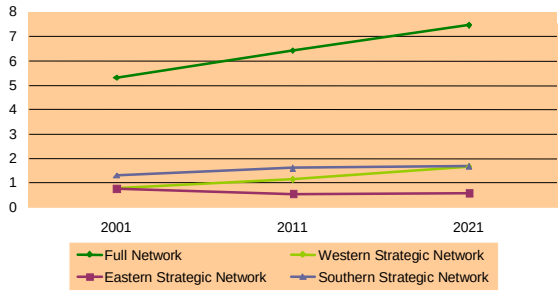

Figure 52: Annual hours of delay (millions). Source: WTSM

Definition: The graph shows delay is the difference between modelled travel time and travel time in uncongested, free-flow conditions, weighted for the volume of traffic. As the cost per unit of time is frequently revised, totals are expressed in vehicle hours rather than financial values.

Interpretation: Current estimates are that 5.3 million hours per year of vehicle delay are experienced on Wellington roads. This is expected to rise to 7.5 million hours per year by 2021. Delays on the strategic network are expected to grow more slowly than delays across the entire network, indicating that increased traffic volumes are likely on non-major roads in attempts to avoid congestion on the major routes. The Eastern Strategic Network is expected to have decreased delays owing to the anticipated completion of the Dowse/ Korokoro interchange by 2011.

Comments: While growing congestion is a concern, the Wellington region does not yet experience it on the scale of Auckland or Australian cities. However, there is no reason to be complacent; opportunities should be taken to pre-empt the regional financial costs of congestion by improving the roading and public transport networks' capacity and efficiency.

5.1.2 a: Public transport user costs

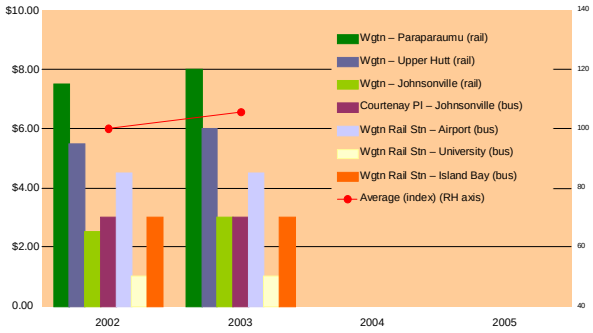

Figure 53: Public transport user costs. Source: Bus/rail operators

Definition: The graph shows single adult fares on several key routes in the morning commuter peak period:

- Wellington – Paraparaumu (rail)
- Wellington – Upper Hutt (rail)
- Wellington – Johnsonville (bus)
- Courtenay Place – Johnsonville (bus)
- railway station – airport (bus)
- railway station – university (bus)
- railway station – Island Bay (bus).

Interpretation: The rail fare index increased by an average of $0.21 between 2002 and 2003, owing to fare increases on the Hutt, Paraparaumu and Johnsonville lines.

Comments: Public transport must remain competitive to ensure travellers continue to be attracted away from private car use, especially for peak-period journeys to work. Fares are a significant element of this competition, along with perceived service quality and convenience.

5.1.2 b: Public transport user cost perceptions

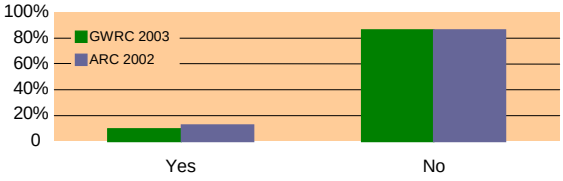

Figure 54: Perceptions of public transport costs as a barrier to mode choice. Sources: GWRC and ARC perception surveys

Definition: The graph shows whether the cost of public transport affects use.

Interpretation: The results are identical between Wellington and Auckland, with 87% of people saying

that the cost of public transport is not hindering their use of it.

Comments: This response further strengthens comments made elsewhere that other factors such as convenience and reliability are the dominant reasons for people not using public transport more often.

5.1.3 a: Vehicle operating costs

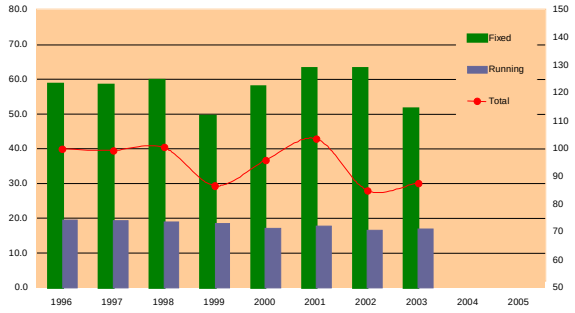

Figure 55: Car running costs, 1996 = 100. Source: Automobile Association (for 1601-2000cc car, 14,000 km/yr.)

Definition: The graph shows vehicle operating costs for a two-litre, petrol-engine car for 14,000km a year. They are broken down into fixed costs (unrelated to vehicle use) and variable costs (proportional to use). Parking charges are not included.

Interpretation: Fixed costs are highly affected by interest rates on finance for car purchase; lower 1999 and 2002 rates reduced fixed costs, and hence overall costs.

Comments: The costs of owning and running a car are usually taken into account when choosing a mode of transport, but the choice is often made by comparing public transport costs with the variable, or marginal, costs of running a car only. Parking charges (not included in these figures) are a means of increasing car use cost relative to that of public transport.

5.1.3 b: Private transport perception costs

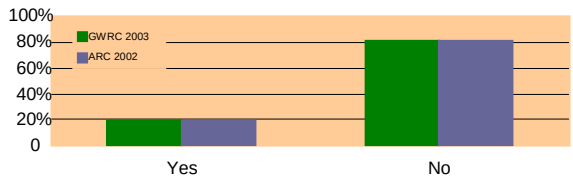

Figure 56: Perceptions of private transport costs as a barrier to mode choice. Sources: GWRC and ARC perception surveys

Definition: The graph shows whether the cost of private transport affects use.

Interpretation: The results are almost identical for Wellington and Auckland, with 81% of people saying that the cost of private transport is not hindering their use of it.

Comments: The majority of the population are not changing their private transport use because of cost.

5.2 Demographic summary

5.2.1 Economic efficiency indices

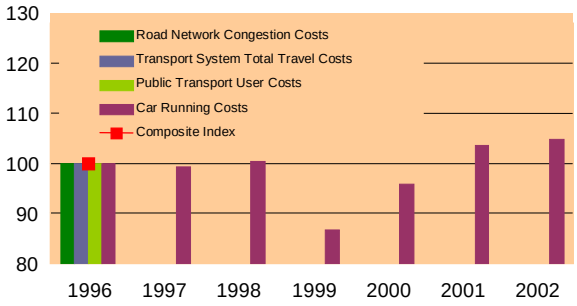

Figure 57: Economic efficiency indices, 1996 = 100. Sources: WTSM, bus/rail operators, GWRC and ARC perception surveys, New Zealand Automobile Association

The key indicators on which this category's indices are based were recorded for the first time in 2002. It will therefore be impossible to plot movement in the indices, or the composite index, until the 2003/04 AMR. Figure 57 shows movement in the index of vehicle operating costs, information on which is available for every year from 1996 (the base year).

5.2.2 Regional level

Over 5.3 million hours of vehicle time were spent on congested regional roads in 2002. The cost of running a private car (two-litre, 14,000km a year) has dropped by about 10% since 1996. Costs dropped in 1999 and 2002 when lower interest rates reduced the costs of borrowing money to buy a vehicle.

5.2.3 Sub-regional level

No sub-regional information is available.

5.2.4 Outlook

Time spent using the transport network is likely to increase with population growth and economic activity. While congestion is not yet on the scale of Auckland and Australian cities, average times spent on the road network will rise as congestion intensifies and spreads to previously uncongested areas and times of day.

5.2.5 Implications for transportation planning

The costs of congestion will rise as regional demand for travel increases. This situation must be pre-empted by encouraging more efficient use of the road network, use of public transport for peak-period commuter trips, use of 'active' modes for shorter trips, and an overall reduction in travel demand.

6 Affordability indicators

This section sets out and discusses items relating to the RLTS affordability objective: *to plan for a land transport system that recognises funding constraints and ability to pay*. It considers the following performance indicators:

6.1.1 Capital works expenditure
6.1.2 Maintenance works expenditure
6.1.3 Household travel expenditure.

6.1 Indicators

6.1.1 Capital works expenditure

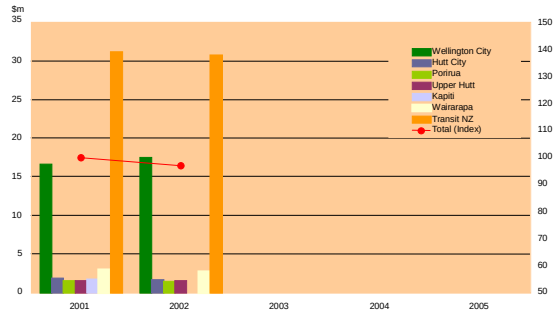

Figure 58: Capital works expenditure, by district, by year, 2001 = 100. Sources: local authorities, Transit New Zealand

Definition: The graph shows total annual expenditure on capital works associated with the road network.

Interpretation: Data is not yet available for a sufficiently long period to establish reliable trends, however the index fell 5% between 2001 and 2002.

Comments: It will be some years before a trend can be established.

6.1.2 Maintenance works expenditure

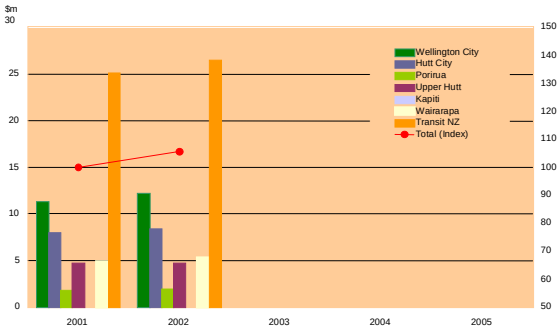

Figure 59: Maintenance works expenditure, by district, by year, 2001 = 100. Sources: local authorities, Transit New Zealand

Definition: The graph shows total annual expenditure on maintenance works associated with the road network. It excludes any expenditure on emergency works.

Interpretation: Data is not yet available for a sufficiently long period to establish reliable trends, however the index increased 6.7% between 2001 and 2002.

Comments: It will be some years before a trend can be established.

6.1.3 Household travel expenditure

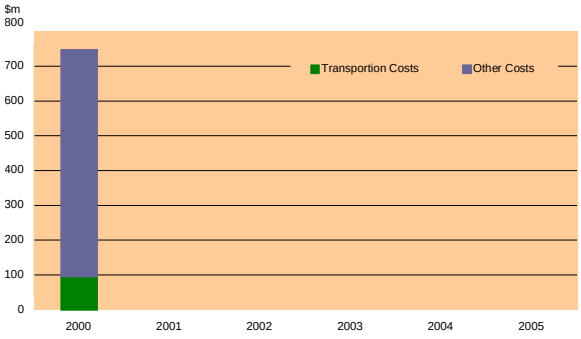

Figure 60: Household travel expenditure. Source: Statistics New Zealand

Definition: The Household Economic Survey collects this information, and last did so in 2000/01. The graph shows national averages; disaggregation by region is unavailable. The next survey is due in September 2004, so data should be available for inclusion in the 2005/06 AMR.

Interpretation: The total average weekly household expenditure for 2000/01 was $747.50, of which domestic travel accounted for $94.50, or 13%.

Comments: Like any economic good or service, consumption is influenced by price; if the cost of travel increases relative to other costs, there is likely to be a reduced total travel demand, and vice versa.

6.2 Demographic summary

6.2.1 Affordability indices

There is not enough information available to establish indices for this category.

6.2.2 Regional level

It will be several years before trends become apparent. Household expenditure survey results are unavailable at the regional level. National 2000 figures suggest the average household spends around $94.50 on domestic transport, or around 13% of total expenditure.

6.2.3 Sub-regional level

Trends cannot be established for capital and maintenance expenditure as insufficient information is available.

6.2.4 Outlook

Capital and maintenance expenditure information comes mainly from Transfund New Zealand. At the national level, the 2003/04 National Land Transport Programme provides for $1.19 billion of expenditure for the 2003/04 year.

The outlook for regional Wellington expenditure is unclear. Projects such as the Paremata Bridge duplication are proceeding, and the inner-city bypass is expected to do so, subject to resolution of Environment Court and funding issues. The proposed Transmission Gully motorway project is longer term, and unlikely to attract funding for several years.

6.2.5 Implications for transportation planning

The network needs ongoing investment to maintain and improve efficiency levels. Seen from a national perspective, Wellington's road congestion is not severe enough to warrant substantial funding. It will, therefore, be necessary to look at low-cost ways of improving network efficiency, discouraging peak-period commuter car trips and increasing car occupancy.

7 Safety indicators

This section sets out and discusses items relating to the RLTS safety objective: *to provide a safer community for everyone through a transport system that achieves or improves on the targets of the National Road Safety Plan through the Regional Road Safety Strategy*. It considers the following performance indicators:

7.1.1 Total injury crashes
7.1.2 Total casualties
7.1.3 Total casualties by severity type
7.1.4 Region casualties
7.1.5 Relative risk by transport mode
7.1.6 Bicycle casualties
7.1.7 Pedestrian casualties
7.1.8 Motorcycle casualties
7.1.9 Perception of road network safety
7.1.10 Safety perceptions on public transport

7.1 Indicators

7.1.1 Total injury crashes

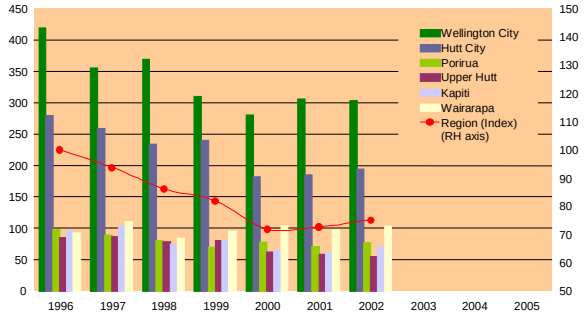

Figure 61: Total injury crashes, by district, by year, index 1996 = 100. Source: Land Transport Safety Authority

Definition: The graph shows total recorded injury crashes for all vehicle types.

Interpretation: There was a general, longer-term downward trend in most districts and across the whole region until 2000. From 2000, total injury crashes have continued to increase, particularly in Wellington city, Hutt City, Kapiti and Porirua.

Comments: Vehicle safety improvements, driver education and proactive safety engineering on local roads have all contributed to reductions in crash numbers. However, since crash numbers are now increasing from a previous downward trend, there is no room for complacency.

7.1.2 Total casualties

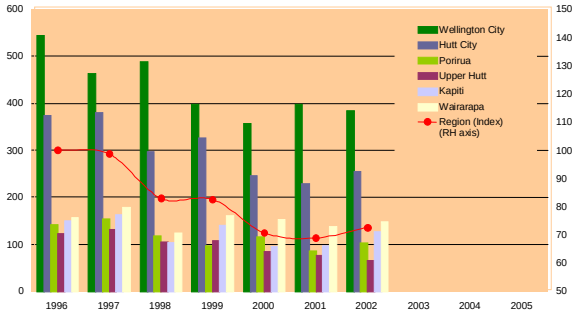

Figure 62: Total casualties, by district, by year, index 1996 = 100. Source: Land Transport Safety Authority

Definition: The graph shows total recorded casualties for all vehicle types.

Interpretation: In a similar vein to total injury crashes, total recorded casualties showed a longer-term downward trend in most districts and across the region as a whole until 2001, when a rise started.

Comments: In 1999, the RLTS set a ceiling for 2001 of 1,200 casualties or fewer; it was achieved in 2000 when the total fell to 1,054. Despite this goal having been met, there is no room for complacency, especially when the above data shows an increase in total recorded casualties for all vehicle types since 2001.

7.1.3 Total casualties by severity type

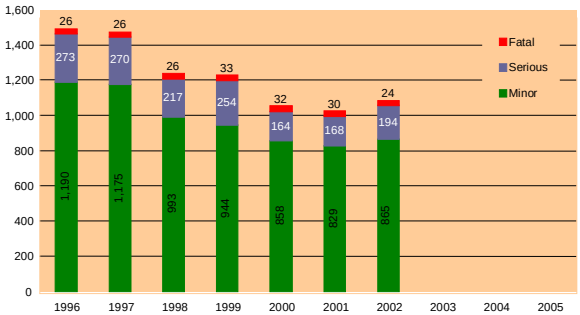

Figure 63: Total casualties, by type, by year. Source: Land Transport Safety Authority

Definition: The graph shows casualties disaggregated by severity: fatal, serious and minor.

Interpretation: Despite there being a substantial reduction in fatality numbers between 2001 and 2002, the overall increase in serious and minor casualty numbers is cause for concern.

Comments: Improved vehicle safety, driver education and proactive road safety engineering have all contributed to the reduction in casualties, but the

effectiveness of current intervention programmes appears to be waning.

7.1.4 Region casualties

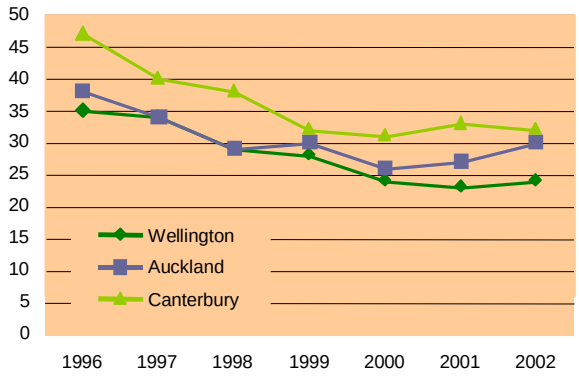

Figure 64: Casualties per 10,000 population. Sources: Land Transport Safety Authority, Statistics New Zealand

Definition: The graph shows the number of casualties per 10,000 population, disaggregated by region.

Interpretation: Canterbury showed the greatest reduction in casualties per 10,000 population between 1996 and 2002, at 32%. Wellington showed a similar reduction at 31%, while Auckland managed a reduction of 21%.

Comments: While our casualty rate is better than that of our peers, there is no room for complacency, especially when the above data shows an increase in total recorded casualties for all vehicle types since 2001.

7.1.5 Relative risk by transport mode

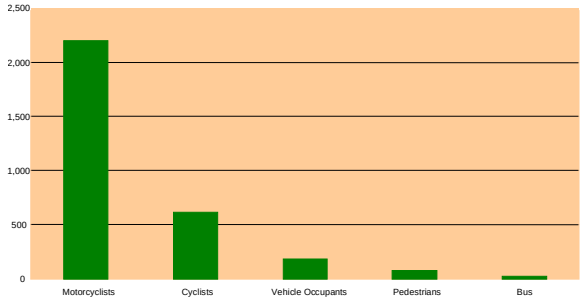

Figure 65: Relative risk by transport mode per 100 million trips. Source: Land Transport Safety Authority, New Zealand Travel Survey 1997-98

Definition: The graph shows casualties reported per 100 million trips disaggregated by transport mode.

Interpretation: The relative risk of each mode is determined using an 'exposure-to-risk' indicator of casualties per 100 million trips. A cyclist is three times as likely as a vehicle occupant on any given trip to experience a casualty, and eight times more likely than a pedestrian. Bus travel represents the least 'risky' mode.

Comments: Reducing cyclist risk is an outstanding priority for road safety initiatives. Pedestrian travel is starting from a good base and initiatives towards pedestrian safety are likely to be about maintaining that momentum. Vehicular risk will likely be contained within any regional road safety initiatives. Motorcycle risk will similarly be reviewed in the ensuing Regional Road Safety Strategy.

While we can conclude that cycling is 'less safe' than other modes of transport, it is important to note that cycling in itself, as with the other modes, is not 'unsafe'. There is only one chance per 40,000 hours cycled of experiencing a casualty.

The Land Transport Safety Authority's New Zealand Travel Survey will now be conducted annually.

7.1.6 a: Bicycle casualties

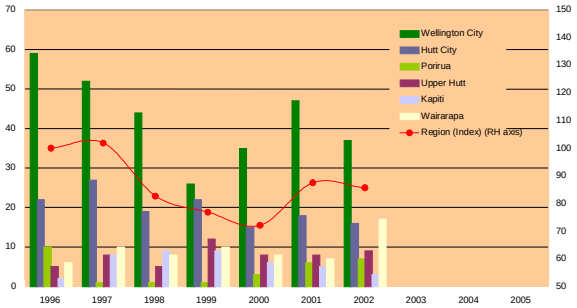

Figure 66: Bicycle casualties, by district, by year, index 1996 = 100. Source: Land Transport Safety Authority

Definition: The graph shows bicycle casualties, disaggregated by district.

Interpretation: Cyclist casualty numbers exhibit a slight downward trend in the region as a whole. This is driven by Wellington city, Hutt City and Kapiti. Other areas show an increasing trend in cycle casualties, although actual numbers are low. Cyclist casualties are disproportionately high given the low number of trips made by cycle.

Comments: Cyclists are vulnerable road users, however cycling is a transport mode that should be encouraged. The draft GWRC Regional Cycling Strategy aims to encourage a cycling culture in the region. It is currently in the public consultation phase.

7.1.6 b: Perceptions of cycle safety

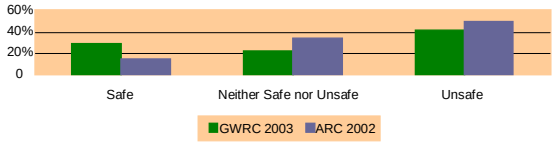

Figure 67: How safe do you think people are when using cycles? Sources: GWRC and ARC perception surveys

Definition: The graph shows how safe respondents think people are when using bicycles.

Interpretation: 42% of respondents said they felt 'unsafe' while only 29% reported feeling 'safe'.

While this compares favourably with ARC's survey (14% more people feel 'safe' in Wellington than in Auckland), 29% is very low, and we clearly need improvements to help cyclists feel safer on the region's roads.

Comments: GWRC and the community must focus on providing a safe environment for all transport users. This result correlates well with the relatively high risk of being involved in a crash with a motor vehicle.

7.1.6 c: Perceptions of child cyclist safety

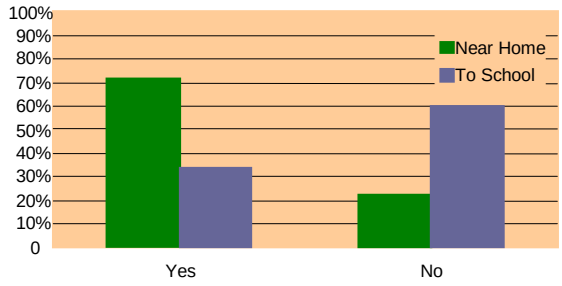

Figure 68: Would/do you let your child (under 12) ride their bicycle unsupervised? Source: GWRC perception survey, 2003

Definition: The graph shows parents'/caregivers' perceptions of how safe they feel young children are when cycling.

Interpretation: While 70% of adults would allow their child to cycle near their home, only 33% would let them cycle to school. The main reason (over 86%) for not allowing children to cycle to school relates to road safety/engineering concerns.

Comments: GWRC and the community must focus on providing a safe environment for transport users of all ages. Many parents/caregivers now drive their children to school as they feel it is too dangerous on the roads for young cyclists. This leads to increased road congestion and less active children.

7.1.7 a: Pedestrian casualties

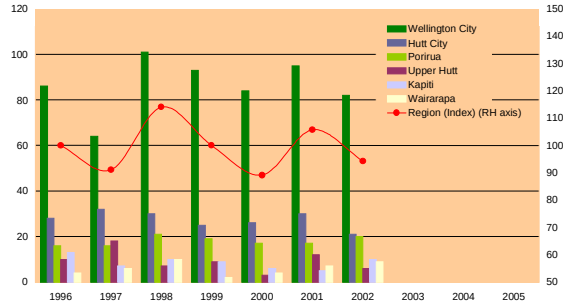

Figure 69: Pedestrian casualties, by district, by year, index 1996 = 100. Source: Land Transport Safety Authority

Definition: The graph shows pedestrian casualties, disaggregated by district.

Interpretation: Pedestrian casualty numbers throughout the region fluctuate from year to year and exhibit a flat or slightly downward trend. Regional trends are largely driven by Wellington city, where 55% of casualties occurred. This is likely explained by the high proportion of pedestrian trips undertaken in the city.

Comments: GWRC is in the early stages of developing a Regional Pedestrian Strategy. The risk of a pedestrian experiencing a casualty is one-third that of vehicle occupants and one-eighth that of cyclists.

7.1.7 b: Perceptions of pedestrian safety

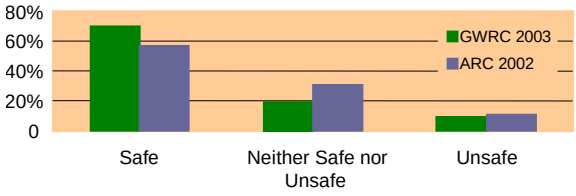

Figure 70: How safe do you think people are when walking? Sources: GWRC and ARC perception surveys, 2003

Definition: The graph shows how safe respondents think people are when walking.

Interpretation: 70% of respondents said they felt people were 'safe' while walking, while only 9% said they thought it was 'unsafe'. This compares favourably with ARC's survey, with 13% more people feeling 'safe' in Wellington than in Auckland.

Comments: With such a high number of people walking in the region, it is not surprising that a large number of people feel safe doing so. This result correlates well with the relatively low risk of being involved in a crash with a motor vehicle.

7.1.7 c: Perceptions of child pedestrian safety

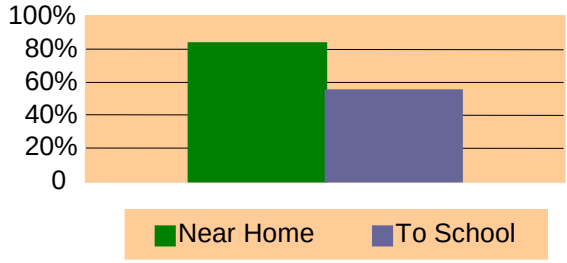

Figure 71: What percentage of people would/do let their child (under 12) walk unsupervised? Source: GWRC perception survey, 2003

Definition: The graph shows parents'/caregivers' perceptions of how safe they feel young children are when walking unsupervised.

Interpretation: The majority of adults (84%) would allow their children to walk near their homes, but significantly less (50%) would allow them to walk to school.

The main reason (almost 50%) given for not allowing children to walk to school relates to 'stranger danger' issues, followed by road safety/engineering concerns (16%).

Comments: GWRC and the community must focus on providing a safe environment for transport users of all ages. Many parents/caregivers now drive their children to school as they feel their communities are unsafe. This leads to increased road congestion and less active children. We must work together to provide a safe environment throughout greater Wellington for people of all ages.

While the actual recorded occurrence of 'stranger danger' incidents is very low, the media play a large role in over-reporting such incidents, leading to a climate of fear.

7.1.8 Motorcycle casualties

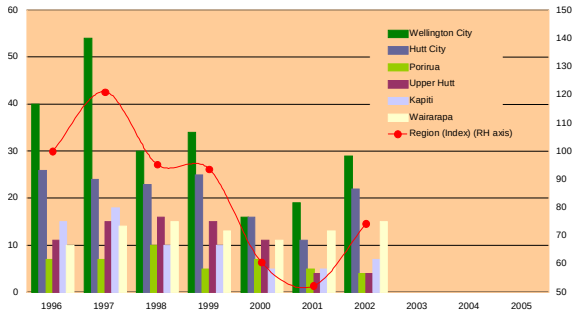

Figure 72: Motorcycle casualties, by district, by year, index 1996 = 100. Source: Land Transport Safety Authority

Definition: The graph shows motorcycle casualties, disaggregated by district.

Interpretation: There was a clear downward trend in motorcycle casualties between 1997 and 2001, which has been reversed by a surge in motorcyclist casualties between 2001 and 2002. Wellington and Hutt City had the largest increases of 53% and 50% respectively.

Comments: While the downward trend in figures was encouraging, the significant increase in motorcyclist casualties in the past year is of concern.

7.1.9 Perceptions of road network safety

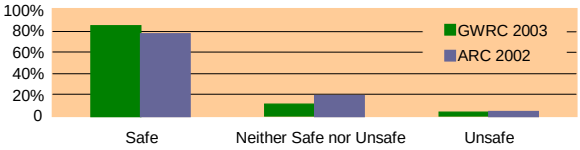

Figure 73: How safe do you feel when using a car? Sources: GWRC and ARC perception surveys

Definition: The graph shows how safe respondents think people are when using a car in the region.

Interpretation: 85% of respondents said they felt people were 'safe' when using a car, while only 3% thought it was 'unsafe'.

This result is similar to ARC's survey, but 7% more people report feeling 'safe' in Wellington than in Auckland.

Comments: With such high mode use, many people perceive they are safest when in their vehicle.

7.1.10 a: Safety perceptions on public transport

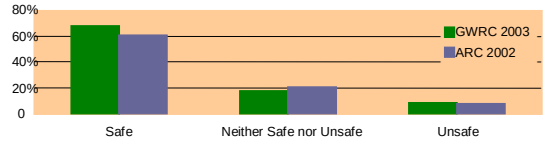

Figure 74: How safe do you feel when using public transport? Sources: GWRC and ARC perception surveys

Definition: The graph shows respondents' perceived safety when using public transport.

Interpretation: 68% of respondents said they felt 'safe' on public transport, and 9% 'unsafe'. This compares favourably with ARC's survey, with 7% more people feeling 'safe' in Wellington than in Auckland.

Comments: GWRC and the community must continue to focus on providing a safe environment for public transport users.

7.1.10 b: Safety perceptions of public transport

Figure 75: People surveyed cite safety concerns as a reason why they do not use public transport. Source: GWRC perception survey, 2003

Definition: The graph shows the number of respondents who said they had not used public transport in the past 12 months owing to safety concerns. The GWRC Take 10 Target is also represented.

Interpretation: The graph shows that of the 229 respondents who said they had not used public transport in the past 12 months, none cited safety concerns as the reason.

Comments: This is the first year GWRC has measured perceptions of GWRC residents. This year we have already achieved our Take 10 Target of 'no-one cites safety as a reason why they do not use public transport'.

7.2 Demographic summary

7.2.1 Safety indices

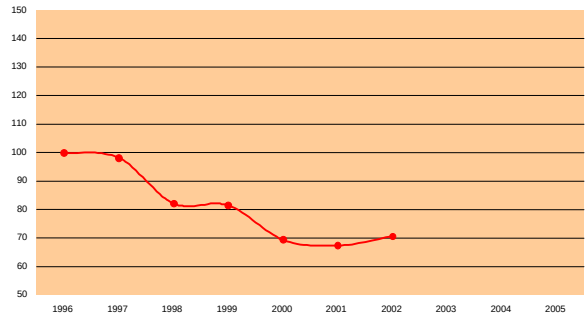

Figure 76: Safety index, casualties per 100,000 population, 1996 = 100. Source: Land Transport Safety Authority

Figure 76 shows the index summarising all safety performance indicators, which is the number of casualties per 100,000 of regional population, relative to the base year, 1996.

In the five years between 1996 and 2001, casualties fell by around 34%. However, the rate then increased by 5% between 2001 and 2002.

7.2.2 Regional level

The period 1996 to 2000 saw a steady decline in total regional casualties, although that rate slowed considerably in 2001 and began to rise in 2002. An increased focus on road safety issues is clearly warranted.

7.2.3 Sub-regional level

Wellington accounted for 38% of total regional casualties from 1996 to 2002; Hutt City for around 25%; Porirua, Upper Hutt and Kapiti, 8% to 9% each; and Wairarapa 11%. The increasing rate of regional casualties is attributable to an increase in all urban areas in 2002.

7.2.4 Outlook

To reverse the new upward trend in the road toll, further improvements will depend on engineering design and expenditure and improving vehicle safety standards. The outlook is for continuing reductions, but at a lower rate than in the past.

7.2.5 Implications for transportation planning

Efforts are required to improve road safety through engineering, enforcement and education programmes. The number of pedestrian and cyclist casualties in urban centres must also be addressed. These issues will be addressed in the new Regional Road Safety Strategy, due for release before the completion of the next AMR.

8 Sustainability/environment indicators

This section sets out and discusses items relating to the RLTS sustainability objective: *to provide a land transport system that recognises the needs of the community; avoids, remedies or mitigates against adverse effects; uses resources in an efficient way; supports an optimal demand for energy*. It considers the following performance indicators:

8.1.1 Fuel consumption
8.1.2 Air quality
8.1.3 Noise adjacent to arterial routes
8.1.4 Surface water quality.

8.1 Indicators

8.1.1 a: Fuel consumption

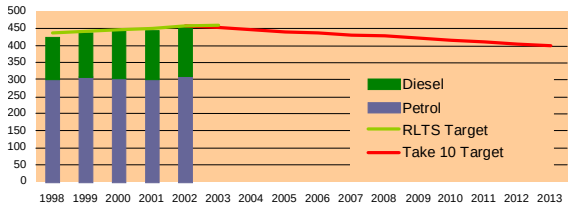

Figure 77: Greater Wellington fuel (diesel and petrol) consumption (millions). Source: local authorities

Definition: The graph shows total petrol and diesel sales in each local authority, as collected monthly for the local body fuel tax. Although some non-retail sales occur, and some fuel is purchased outside the region but used in it (and vice versa), this is, nevertheless, a reliable measure of total regional fuel consumption. Sub-regional disaggregation adds little value to the data as fuel is not necessarily used in the area in which it is bought.

Interpretation: Petrol and diesel sales continue to rise, with diesel sales slightly higher at 3.5% growth over the last year compared with 3% growth for petrol.

Comments: Transport-produced ambient vehicle emissions are linked to fuel consumption. Total fuel sales are, therefore, a reasonable proxy measure for total air pollution attributable to motor vehicles.

At present, fuel sales continue to demonstrate growth. Work will be required if we are to meet our Take 10 Target.

8.1.1 b: Regional fuel consumption

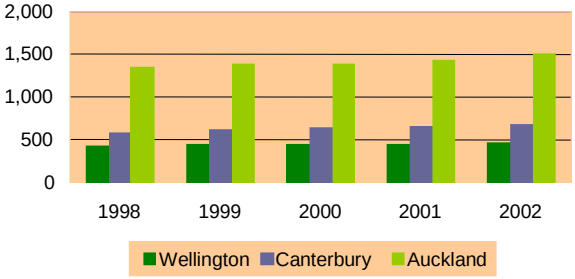

Figure 78: Regional fuel consumption (million litres). Sources: GWRC, ARC and ECan (Environment Canterbury)

Definition: The graph shows total petrol and diesel sales in the Wellington, Canterbury and Auckland regions, as collected monthly for the local body fuel tax. Although some non-retail sales occur, and some fuel is purchased outside the region but used in it (and vice versa), this is, nevertheless, a reliable measure of total regional fuel consumption. Sub-regional disaggregation adds little value to the data as fuel is not necessarily used in the area in which it is bought.

Interpretation: Canterbury fuel sales show the highest growth rate between 1998 and 2002, at 16%. Auckland's growth rate is 12%, while Wellington compares favourably at 8%.

Comments: Transport-produced ambient vehicle emissions are linked to fuel consumption. Total fuel sales are, therefore, a reasonable proxy measure for total air pollution attributable to motor vehicles. Both Canterbury and Auckland have high levels of air pollution attributable to vehicle emissions. As Wellington has yet to set up monitoring, comment cannot be made on Wellington's level of air pollution directly attributable to vehicle emissions, although it is thought to be relatively low compared with Auckland and Canterbury.

8.1.2 Air quality

Ways of measuring this indicator are being established in conjunction with the Environment Division, GWRC.

It is hoped that data will be available from the first road transport permanent monitoring station in the region in time for inclusion in next year's report.

8.1.3 Noise adjacent to arterial routes

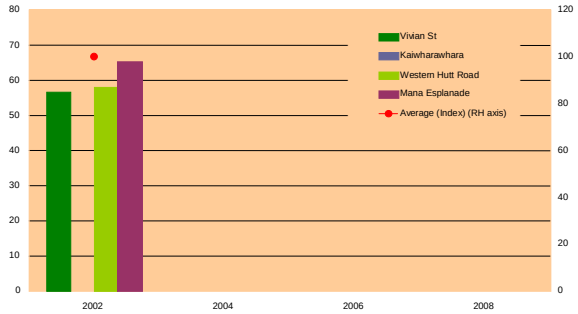

Figure 79: Noise adjacent to arterial routes (noise level 24hr L_{eq}, dBa, one-week average). Source: Greater Wellington Regional Council survey, 2002

Definition: The graph shows noise measurements (at 24-hour L_{eq}[2]) for one week at several sites next to the following arterial roads:

- Vivian Street, Wellington
- urban motorway, Kaiwharawhara, Wellington
- Western Hutt Road, Lower Hutt
- Mana Esplanade, Porirua.

Interpretation: These are noise levels from 2002 surveys only, so no trend can be established. A fault in the Kaiwharawhara monitoring equipment meant no data was collected. Noise levels vary at different sites according to the equipment's precise location, and are therefore irrelevant here.

Comments: No conclusions can yet be drawn from this information. This indicator will be measured every two years. There are currently no guidelines for noise levels adjacent to arterial roads in the greater Wellington region.

8.1.4 Surface water quality

Measurement of this indicator has been suspended pending the establishment of a joint monitoring programme with other agencies.

[2] This is a decibel figure with which you can compare the total loudness-equivalent noise averaged over the 24-hour day with that calculated by the same method for another point of interest. This gives you a decibel guide to noisy versus quiet situations and can only be arrived at by 24-hour continuous monitoring of each site.

8.2 Sustainability/environment indices

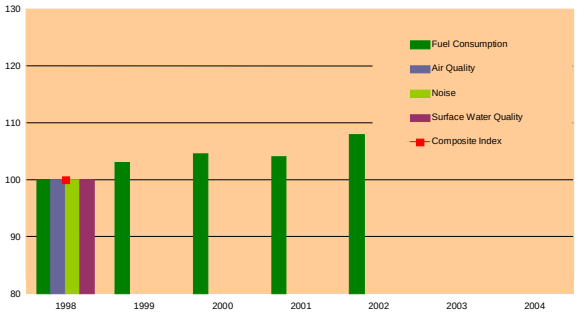

Figure 80: Sustainability/environment (indices), 1998 = 100. Sources: Greater Wellington Regional Council, local authorities, Auckland Regional Council, ECan

Air and surface water quality has not yet been surveyed. The high cost of collecting this data necessitates exploring options for combining surveys with initiatives by other agencies.

Noise has been surveyed but for the first time in 2002, so no trend can be established.

Figure 80 shows only the trend in total regional fuel (petrol and diesel) sales, with 2002 sales slightly up (8%) on 1998 levels.

8.2.1 Regional level

It is impossible to comment until information has been collected on all indicators in this category.

8.2.2 Sub-regional level

No currently available information is disaggregated at the sub-regional level.

8.2.3 Outlook

Fuel sales are likely to grow with more private vehicle ownership and use, although growth is expected to be offset by improved engine efficiency and the introduction of hybrid vehicles.

8.2.4 Implications for transportation planning

Transport activity – and especially private vehicle use – significantly affects the environment. Measures to reduce overall car use and improve car travel efficiency will reduce fuel consumption, air and water pollution, and noise levels adjacent to arterial routes.

9 RLTS project and policy implementation progress

9.1 Context

Current legislation does not permit GWRC to own or operate transport infrastructure (although this is likely to change under proposed legislation). GWRC must, therefore, rely on agencies responsible for roads and public transportation networks to implement RLTS policies and projects.

This section reports on the progress key agencies have made in the year to 30 June 2003.

9.2 Responsibility matrix

Charts 1 to 4 identify RLTS policy and project proposals, and indicate the Wellington region agencies responsible for implementing them.

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development

KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A: Policies											
1.1.1: Improve accessibility of public transport		●	○	○	○	○	○	○		●	●
Extensions of bus/rail services where reasonable demand exists		●	○	○	○	○	○	○		●	●
Provide facilities for parking and carrying cycles where demand exists		●	●	●	●	●	●	●			
Enhance physical access onto buses and trains		●									
1.1.2: Maintain urban rail as an arterial priority in the public transport network		●									●
1.1.3: Allow commercial bus and ferry services on parallel routes to rail services where they complement and increase overall public transport use		●									
1.1.4: Enhance the quality, reliability and priority of public transport facilities and services		●								●	●
Refurbishment/renewal of bus/rail units		●								●	●
Bus services given priority in congested areas		●	○	○					●	○	
1.1.5: Improve the interchange between bus, rail, car and cycle											
Improve Wellington rail/bus interchange		●	●							○	○
Provide commuter car and cycle parks at rail stations		●	●	●	●	●	●	●			○
1.1.6: Improve pedestrian and cycle access to key public transport nodes		●	●	●	●	●	●	●			
Provide safe, convenient and sheltered pedestrian access to/from public transport											
1.2.1: Improve the existing road network to attain inter-peak efficiency		○	●	●	●	●	●	●	●		
1.2.2: Provide heavy traffic bypasses of local communities on the strategic roading network		○	●	●	●	●	●	●	●		
1.2.3: Increase the flexibility of the strategic roading network											
Provision of strategic links		○	●	●	●	●	●	●	●		
Traffic management		○	●	●	●	●	●	●	●		
1.2.4: Provide for freight movement		○	●	●	●	●	●	●	●		
1.2.5: Promote the need to provide for increased tourist movement		●	●	●	●	●	●	●	●		

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development											
KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
1.3.1: Promote land development that minimises the total demand for travel		●	●	●	●	●	●	●			
1.3.2: Promote land development that ensures that public transport, walking and cycling are convenient and safe alternatives to the private car		●	●	●	●	●	●	●			
1.4.1: Develop and enhance safe and attractive walking and cycling routes		○	●	●	●	●	●	●	●		
B: Projects											
Construct the first stage of the Kapiti Western Link Road		○					●		●		
Implement the Active Traffic Management System at Ngauranga Gorge									●		
Construct improvements on the Kaitoke Hill Road		○							●		
Maintain continuous improvements on the Rimutaka Hill Road		○							●		
Construct the Ngauranga – Aotea tidal flow system		○							●		
Design and construct an upgrade of the Korokoro/Dowse intersections on SH2				○					●		
Construct next phase of the inner-city bypass through Buckle and Arthur Streets		○	●						●		
Enhance traffic management to improve pedestrian, cycle and vehicle flows		○	●	●	●	●	●	●	●		
Upgrade the route through Newtown on Adelaide Road from the Basin Reserve to John Street		○	●						○		
Develop a Western Corridor Implementation Plan (Otaki – Ngauranga Merge)		●	●			●	●		●		
Continue land purchase on the Transmission Gully route		○							●		
Provide additional commuter car and cycle parks at major railway stations		●	○	○	○	○	○	○			●
Build a new railway station at Raumati		●					○				●
Extend the urban electric rail service to Waikanae		●					○				●
Increase weekday urban rail service frequency from the Kapiti Coast, Hutt Valley and Wairarapa to Wellington		●									●
Allow commercial commuter bus and ferry services to operate from Porirua and the Hutt Valley to Wellington CBD		●								●	
Increase local bus services to connect with increased rail services		●								●	●

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development											
KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
Improve bus/rail connection at Porirua railway station		●				●				●	●
Investigate the construction of a bus lane from Petone to Ngauranga on SH2 without compromising cycling on this route, construct if possible		●		○					●		
Improve bus priority through CBD traffic		●	●	●							
Enhance bus/rail interchange at Wellington railway station		●	●							●	●
Establish priority routes for Newtown buses servicing the southern and eastern suburbs		●	●							●	
Establish an integrated ticketing system		●								●	●
Improve pedestrian linkages from Wellington railway station to the CBD		●	●								
Establish additional cycle parks at major railway stations		●									●
Enhance traffic management to improve pedestrian, cycle and traffic flow		○	●	●	●	●	●	●	●		

Chart 2: Responsibility matrix for Objectives 2 and 3: Economic efficiency and affordability											
KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A: Policies											
2.1.1: Provide for additional pricing for the use of the roading network as a step towards ensuring all users pay the cost of their use, including externalities		●							●		
2.1.2: Provide for pricing on major new roads to manage the demand on the road network and to help pay for additional projects and services		●							●		
2.1.3: Advocate for levies on the price of long stay parking in publicly and privately owned facilities in the Wellington CBD		●	●								
2.1.4: Undertake a more detailed investigation of the role of road pricing in the region		●									
2.2.1: Balance the capacity of the existing strategic transport network		●	○	○	○	○	○		●		
2.2.2: Influence management of the number and distribution of long stay parking spaces in major urban centres and encourage short stay parking		●	●	●	●	●	●				
2.2.3: Provide for pricing at peak times to manage road demand and reduce road congestion		●							●		
2.2.4: Promote supporting measures which will help reduce peak road demand		●	○	○	○	○	○		○	○	○
2.2.5: Investigate and plan for the growth in major recreational traffic flows		●	○	○	○	○	○		○		
2.2.6: Introduce traffic calming in residential areas		○	●	●	●	●	●	●			
B: Projects											
Detailed investigation of road pricing in the region		●							○		

Chart 3: Responsibility matrix for Objective 4: Safety											
KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A: Policies											
4.1.1: Develop programmes that improve skills and behaviour of people using the transport system		○	●	●	●	●	●	●			
4.1.2: Plan development and design to improve road infrastructure and safety		○	●	●	●	●	●	●	●		
4.1.3: Develop a safety culture with respect to travel assisted by more effective co-ordination of the planning and implementation of road safety programmes		●	●	●	●	●	●	●			
4.1.4: Encourage greater use of cycling and walking for local trips		●	○	○	○	○	○	○	○	○	○
B: Projects											
Complete safety improvements at McKays Crossing									●		
Complete safety improvements on SH1 north of Paremata									●		
Provide safety improvements to SH58									●		

Chart 4: Responsibility matrix for Objective 5: Sustainability											
KEY		GWRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A: Policies											
5.1.1: Promote environmentally benign transport mechanisms		●	○	○	○	○	○	○	○	●	●
5.1.2: Make cycling and walking more attractive		●	●	●	●	●	●	●	●		
5.1.3: Price at peak times on the road network to mitigate adverse impacts of road use		●							●		

9.3 Project status explanation

EXPLANATION	STATUS				
	1	2	3	4	5
Work has not begun on this project					
Initial Design Stage – Initial groundwork conducted (several variations of the project being considered)					
Detailed Design Stage – Preferred option selected and agreed on by transport technicians					
Public Consultation Stage – Project presented to public					
Project Implementation Stage – Work has begun on the project					
Project fully implemented *(Year completed)*					*2002/03*

9.3.1 Greater Wellington Regional Council

The chart below reports GWRC progress in implementing its own areas of responsibility.

PROJECT	STATUS				
	1	2	3	4	5
Develop a Western Corridor Implementation Plan (from Otaki to Ngauranga Merge) Western corridor					*2000* Western Corridor Implementation Plan has been completed.
Provide additional commuter carparks at major railway stations All rail corridors					 Wallaceville carpark was extended by 10 parking spaces.
Build a new railway station at Raumati Western corridor					 This project has been suspended until a long-term contract has been established with an urban rail provider.
Extend the urban electric rail service to Waikanae Western corridor					
Increase weekday urban rail service frequency from the Kapiti Coast, Hutt Valley and Wairarapa to Wellington All rail corridors					*2003* New increased urban rail services started on 5 August 2001 on the Paraparaumu, Hutt and Melling lines. A third peak Masterton to Wellington service commenced on 13 October 2002.
Improve bus/rail connection at Porirua railway station Western corridor					 Detailed design and review work will be carried out this year. The project is expected to be completed within the next two years.
Integrated ticketing All corridors					 Hutt Plus monthly train/bus tickets to be introduced in November 2003.

PROJECT	STATUS				
	1	2	3	4	5
Promote additional cycle parks at major railway stations All rail corridors					
	Additional cycle lockers have been provided at Paraparaumu and new ones added at Otaki, Porirua, Paremata and Plimmerton stations in 2003.				
Detailed investigation of road pricing in the region All corridors					
	Information on the worldwide experience of road pricing, a survey on the community response to transport pricing mechanisms and a summary of the modelling technical work have been gathered.				
Develop proposals for the future of the existing state highway with appropriate agencies for when Transmission Gully is built Western corridor					
	Under investigation.				
Upgrade Paraparaumu railway station building Western corridor					*2003*
	Tranz Metro has undertaken some improvements to the station. Further improvements await the sale of Tranz Metro.				
Increase rail feeder services Hutt corridor					
	After a complete review of bus services in the Hutt Valley, new routes and service levels that increase overall bus kilometres by 60% were approved by the Council. Cityline Hutt Valley won all the major contracts and with the exception of a few services that have already started, the changes take effect in October 2003.				
Refurbish Petone railway station Hutt corridor					
	The old Petone station has been demolished and a new replica-type building in keeping with Petone's heritage status is underway and will be completed in December 2003.				
Improve bus priority through CBD Wellington CBD corridor					
	Three bus lanes have been implemented. In August 2003, Wellington City Council approved new priority measures for northbound buses in Dixon and Manners Streets.				
Enhance the Lambton bus/rail interchange Wellington CBD corridor					*2003*
	The new interchange was officially opened in March 2003.				
Upgrade Upper Hutt railway station building Hutt corridor					
	This project has been suspended until a long-term contract has been established with an urban rail provider.				
Develop a Wairarapa Corridor Implementation Plan Wairarapa corridor					
	A Wairarapa Implementation Corridor Plan has been completed in draft form after discussions with stakeholders. It will now be subject to a more formal stakeholder consultation process before being reported back to the RLTC.				

PROJECT	STATUS				
	1	2	3	4	5
Develop a Hutt Valley Corridor Implementation Plan Hutt corridor					
	A draft Hutt Valley Corridor Implementation Plan has been completed and has gone through a public consultation phase. It is now subject to a stakeholder consultation process before being reported back to the RLTC in November 2003.				

GWRC is making good progress in providing more public transport, but is continuing to have major difficulty implementing capital projects due to the uncertainty around the ownership of the urban rail system.

The RLTS lists many public transport projects due for completion by 2004 that are either already operating or about to be implemented.

9.3.2 Wellington City Council

The chart below reports progress Wellington City Council has made towards implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Enhance bus/rail interchange at Wellington railway station					*2003*
	The new Lambton interchange was operational at the end of March and officially opened on 2 April 2003.				
Improve bus priority through CBD traffic Wellington CBD corridor					
	Three bus lanes have been implemented on a permanent basis. Further bus lanes are under investigation.				
Wellington CBD corridor study					
	This is a joint process with GWRC, and also includes Transit New Zealand and Transfund. Stages 1 and 2 modelling have been completed.				
Establish priority routes for Newtown buses servicing the southern and eastern suburbs Wellington south corridor					
	A bus lane in the morning peak going north on Adelaide Road has been implemented on a trial basis; this is only part of the whole exercise – awaiting Wellington south corridor plan before anything else is put in place.				
Enhance traffic management to improve pedestrian, cycle and vehicle flows Wellington CBD corridor					
	This is currently part of a joint Wellington City Council/GWRC investigation.				
Improve pedestrian linkages from Wellington railway station to the CBD Wellington CBD corridor					
	Additional canopies linking the Lambton interchange to the Wellington CBD are included in the interchange development.				
Upgrade the route through Newtown on Adelaide Road from the Basin Reserve to John Street Wellington south corridor					
	This is currently part of a joint Wellington City Council/GWRC investigation and awaiting Wellington south corridor plan.				

9.3.3 Hutt City Council

The chart below reports progress made by Hutt City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Traffic calming schemes					*2002/03*
	Two schemes installed in Schofield Street and St Albans Grove.				
Improve cycle linkages					
	$50,000 has been invested in minor cycleway improvements, mainly to upgrade access to the riverbank cycle/pedestrian path.				
New pedestrian crossings					*2002/03*
	Two new crossings at High Street/Queens Drive and Evans Street.				
Upgrade existing pedestrian crossing					*2002/03*
	One crossing upgraded at Cambridge Terrace/Hampton Court.				
Install Kea crossings					*2002/03*
	11 Kea crossings installed.				
New roundabout					*2002/03*
	Installed at Seddon Street/Waddington Drive intersection.				
Street lighting					
	Main road street lighting upgraded in Block Road and Oxford Terrace. Also CBD service lanes and all of Naenae area minor road lighting upgraded.				
Valley Floor Connector study					
	Study is 75% complete, and due for completion in the next three months.				

9.3.4 Porirua City Council

The chart below reports progress made by Porirua City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Countdown bus shelter extension					
	Deferred pending city centre traffic study (PCC), which may influence the position of the bus shelter extension.				
Plimmerton station carpark upgrade					
	Project delayed due to difficulties with land definition. GWRC's property consultants are addressing this.				
New bus shelters					
	New shelters are scheduled for construction this year.				
Bus/rail interchange Mungavin Bridge					
	This project is in the 2003/04 programme for design and construction.				

PROJECT	STATUS				
	1	2	3	4	5
Porirua station carpark lighting					
	GWRC is investigating security measures at station carparks along the Paraparaumu line.				
Promote cycle parks at major railway stations					
	Lockers are being installed.				

9.3.5 Kapiti Coast District Council

The chart below reports progress made by Kapiti Coast District Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Western Link Road Western corridor					
	The Environment Court released its decision on the Western Link Road on 1 August 2003 confirming the designation. This is the second decision on the Western Link Road by the Environment Court, with the first being set aside by an appeal to the High Court by Takamore Trustee, Waikanae Christian Holiday Camp and the New Zealand Historic Places Trust. Once the designation has been completed Council needs to apply for resource consents and Historic Places Trust approval to enable construction.				

9.3.6 Upper Hutt City Council

The chart below reports progress made by Upper Hutt City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Norana Road traffic calming					
	Detailed design stage.				
Silverstream Bridge seismic strengthening					
	Present stage investigating consent requirements and discussion with Transit New Zealand and Hutt City. Due for detailed design and construction 2004/05.				
Totara Park Bridge Widening at access to SH2					
	Progress delayed awaiting a timing review requested by Transfund.				
Cycle network review					
	Draft report received.				
River Road Transportation Study					
	Funding approved. Work not started.				

PROJECT	STATUS				
	1	2	3	4	5
Land Transport Strategy					
	On hold pending other work with higher priority.				
Akatarawa Road economic development study					
	Study complete. Report has been prepared for consideration in Long Term Council Community Plan.				
Hillside Drive traffic calming					
	Public consultation complete. Report going to Council with recommendation to proceed.				

9.3.7 Wairarapa councils

The chart below reports progress made by Wairarapa councils on implementing actions for which they are responsible.

Masterton District Council

PROJECT	STATUS				
	1	2	3	4	5
Eastern bypass investigation					
	To investigate options for heavy vehicles to bypass the Masterton urban area on the east, with future logging traffic particularly in mind. Work has not yet begun on this project.				
Review of forestry logging impacts					
	To review harvesting projections and forecast the impact on the pavements on the various logging routes. Work has not yet begun on this project.				
Cycle strategy					
	A statement of actions on encouragement, education, engineering and enforcement for cycling in Masterton District. A draft strategy has been prepared and stage one implementation is anticipated later in 2003/04.				

9.3.8 Transit New Zealand

The chart below reports on progress made by Transit New Zealand on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Implement the Active Traffic Management System (ATMS) at Ngauranga Gorge Western corridor					*2002/03*
	Further refinements carried out in 2002/03.				
Construct improvements on the Kaitoke Hill Road Wairarapa corridor					
	Construction of the new road began in late October 2002. Work is well underway and expected to be completed by spring 2004.				

PROJECT	STATUS				
	1	2	3	4	5
SH2 Rimutaka corner easing Wairarapa corridor					
	The Transit Authority has approved a scheme to provide a 60km/h design speed along this section of the highway. The State Highway Plan includes the funding to obtain resource consents and Notice of Requirement in 2003/04, followed by design in 2005/06 and construction in 2006/07.				
Construct the Ngauranga-Aotea tidal flow system Western corridor					
	Further discussion required with WCC on the effects the system would have on its network. Not scheduled for progression in Transit New Zealand's 10-year plan.				
SH2 Dowse to Petone upgrade Hutt corridor					
	Twelve appeals were lodged against the designation and resource consents. All appeals have now been resolved. Design work has begun and is due to be finished November 2003. Property still to be acquired and compulsory acquisition may be required. The State Highway Programme shows construction to commence in 2005/06.				
SH1 Wellington inner-city bypass Wellington CBD corridor					
	In May 2002, the New Zealand Historic Places Trust gave Transit New Zealand archaeological approval for the inner city bypass to be built through the Te Aro area, subject to conditions. The Environment Court heard two appeals in October 2002 and February 2003. Both were dismissed, without further conditions imposed. An appeal has been lodged to the High Court. The State Highway Plan provides for an immediate start on the project with funding available from 2003/04 onwards. A review of the project, however, is currently underway to ensure it meets the Government's roading strategies. A decision is due mid-December 2003.				
Transmission Gully motorway Western corridor					
	Transit New Zealand has carried out planting on 4.4 hectares of the corridor for slope stabilisation. The State Highway Programme indicates this is a potential project as more investigation is needed and funding is not clear. Work to review and improve the construction cost estimate and to undertake more planting is programmed for 2003/04.				
Complete the safety improvements at McKays Crossing junction Western corridor					
	Detailed design and property acquisition are in progress. The State Highway Plan indicates that construction will commence on this project during the 2003/04 year.				

PROJECT	STATUS				
	1	2	3	4	5
SH1 Plimmerton to Paremata Western corridor					
	Construction of the duplicate Paremata Bridge began July 2002. It is expected the bridge will be completed late 2003. Construction is well underway on the four-laning work north of James Street to the vicinity of the Plimmerton weigh station. It is expected this stage will be completed by mid-late 2004. Design for the third and final phase, of improvements south of James Street to the Paremata Bridge and Paremata Roundabout, has been completed and the tender has been let to Higgins Construction.				
Complete the safety improvements on SH1 north of Paremata Western corridor					*2002*
	This project has been completed.				
SH1 Western Link Road Western corridor					
	This is a joint project with KCDC. In July 2003 the Environment Court upheld its decision confirming designation. This has been appealed to the High Court. The State Highway Plan indicates that the first stage of this project could be designed in 2005/06 with construction starting in 2006/07.				
SH1 Hadfields Road to Peka Peka improvements Western corridor					*2003*
	This project was completed in April 2003.				
SH1 Otaihanga Road intersection improvements Western corridor					
	This intersection will be reconsidered as part of the Peka Peka to Poplar Avenue four-laning investigation.				
SH1 Lindale to Nikau Palms Drive Western corridor					
	Construction of the new road began in June 2003. Work is underway and expected to be completed by mid-2004.				
SH1 Paekakariki Beach Road intersection Western corridor					
	Minor improvements were completed at the intersection in early 2002/03.Transit New Zealand and KCDC have decided not to carry out further improvements to this intersection following the report issued in May 2003.				
SH2 Te Marua curve improvements Hutt corridor					
	Transit New Zealand is currently completing documentation to support resource consent and designation applications. Transit New Zealand's 10-year plan has construction starting in 2004/05.				
SH2 Waiohine Bridge replacement Wairarapa corridor					
	Transit New Zealand is currently completing documentation to support resource consent and designation applications. The State Highway Plan indicates this project will be designed in the current financial year (2003/04) with construction in 2004/05.				

PROJECT	STATUS				
	1	2	3	4	5
SH2 intersection improvements and SH58 summit to SH2 four-laning					
Porirua to Hutt Valley corridor	Appeals have been lodged against the resource consents and Notices of Requirement. These projects are not on the State Highway 10-Year Plan. In the meantime, a median barrier along SH58 is being installed.				
SH1 North Otaki to Peka Peka upgrade					
	Transit New Zealand has recently confirmed its decision not to proceed to designate a route for future four-laning in this area.				

Transit New Zealand reports good progress in implementing RLTS projects, although long Environment Court delays pose a major risk. These projects implement the RLTS by ensuring balanced provision of increased capacity.

10 Strategy implementation

10.1 Overall progress achieved

RLTS implementation continues to be slower than anticipated. Uncertainty and delays result from:

- issues over the ownership of Tranz Rail
- delays in the release of the Land Transport Management Act
- processes involved in the Resource Management Act 1991
- financial constraints.

Highlights of the 2002/03 year include:

- the opening of the new Lambton interchange
- approval of a 60% increase in bus feeder services to Hutt Valley railway stations to take effect in October 2003
- improved frequencies of rail services on the Kapiti, Hutt and Wairarapa lines
- the continuation of the development of a Hutt Valley Corridor Implementation Plan
- refining of the Active Traffic Management System at Ngauranga Gorge
- SH1 safety improvements at Hadfields Road to Peka Peka.

10.2 Major 2003/04 actions programmed

Major programmes anticipated to be completed in the 2003/04 year include:

- the Valley Floor Connector feasibility study
- resolution to appeals lodged against the Western Link Road
- implementation of the Greater Wellington Regional Cycling Strategy
- implementation of the Masterton District Council Cycling Strategy
- refurbishment of Petone railway station
- Kaitoke Hill Road improvements
- the Paremata Bridge duplication
- Lindale to Nikau Drive safety improvements
- Dowse to Petone upgrade design work.

Major programmes anticipated to commence in the 2003/04 year include:

- construction of the Wellington inner city bypass
- safety improvements at McKays Crossing junction
- integrated ticketing on Hutt Valley rail and bus services
- new bus services in the Hutt Valley.

10.3 Obstacles to implementing the RLTS

10.3.1 Specific projects

Several projects have fallen behind the RLTS implementation programme:

Western Corridor Implementation Plan

Public transport elements have been delayed by the impending Tranz Rail sale.

Road improvements, particularly progress on the Transmission Gully motorway, have been delayed by lack of an appropriate legal framework.

Inner city bypass

Extensive appeals under the Resource Management Act 1991 continue to delay this project.

Kapiti Western Link Road

Extensive appeals under the Resource Management Act 1991 continue to delay this project.

Rail service improvements

Some improvements to the regional rail service have been delayed by the impending sale of Tranz Metro and negotiation of a long-term rail contract.

10.3.2 General impediments

The Wishbone Study Report[3] identifies two categories of general impediment to implementing the RLTS:

Legislative/institutional: a weak requirement for agencies to act simply in a manner 'not inconsistent' with the RLTS, which results in little commitment by some agencies to RLTS provisions.

Financial: a funding regime that does not recognise the importance of single projects within an overall strategy, that gives priority to short-term benefits, and that promotes incremental improvements over longer-term strategic investment.

Necessary reform in these areas would provide a framework for implementing the RLTS more successfully.

[3] The Wishbone Study; Delivering Land Transport Outcomes in the Wellington Region (Greater Wellington Regional Council, October 2000).

11 Conclusions

This report's main conclusions are:

- with an index base year of 1996, the greater Wellington region shows steady economic growth, with the growth rate being higher than that of Canterbury, Auckland and New Zealand as a whole
- all transport-related perceptions measured in Wellington are 'better' than similar indicators measured in Auckland
- regional public transport patronage continues to show strong growth
- greater Wellington's congestion levels are the lowest of all Australasian cities measured
- congestion on Wellington roads has worsened over the past year and will continue to get worse unless the transport network is used more effectively. Fifty percent of people surveyed believe that road congestion is worse than it was two years ago
- the region's road toll continues to be too high and in the past year has begun to increase. Eighty-five percent of people feel 'safe' when using cars; 70% when walking; but only 29% think that cyclists are 'safe'
- of the 'active' modes of transport, cycling continues to have a much lower level of use than walking
- the composite transport index as an indicator of overall travel demand continues to show strong growth
- implementation of the RLTS continues to be slower than anticipated, primarily due to issues relating to the Resource Management Act (1991), uncertainty about urban rail ownership and the lack of an appropriate legal framework to enable the early construction of the Transmission Gully motorway
- funding available from both central and local levels of government continues to be lower than anticipated in the RLTS
- present and future demands reinforce the need for reliable connections to and through the region
- the private car is the dominant mode of transportation and its continuing growth will require a balance in the construction of new infrastructure and changes in patterns of use.

12 Glossary

AA	Automobile Association
AADT	Annual average daily traffic
AMR	Annual monitoring report
ARC	Auckland Regional Council
CBD	Central business district
CGI	Congestion indicator
Golden Mile	Lambton Quay to Courtenay Place
GWRC	Greater Wellington Regional Council
LOS	Level of service
LTCCP	Long-Term Council Community Plan
RLTC	Regional Land Transport Committee
RLTS	Regional Land Transport Strategy
SH	State highway
Take 10 Target	GWRC 2013 sustainability targets
VKT	Vehicle kilometres travelled
WTSM	Wellington Transport Strategic Model

Water, air, earth and energy: elements in Greater Wellington's logo that combine to create and sustain life. Greater Wellington promotes **Quality for Life** by ensuring our environment is protected while meeting the economic, cultural and social needs of the community.

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