

**Monitoring Progress Towards the Targets of the
Canterbury Regional Land Transport Strategy 2008 –
2018**

Annual Report Card 2009/10

Prepared for the Canterbury Regional Transport Committee by

The Canterbury Regional Transport Officers Group

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At a Glance

Region-wide Targets



No congestion outside Christchurch

 /  Traffic levels on rural State Highways around the region appear largely static – when compared to 2008. After the fuel price spike related falls seen a year ago, traffic volumes on the northern and southern approaches to Christchurch have increased during 2009 – typically now back to the volumes seen in 2007. Residents from outside Greater Christchurch rarely report experience of traffic congestion and when they do, it is generally confined to peak period trips on the northern approach to Christchurch.


Carbon dioxide emissions to no more than 10% of 2001 levels

 /  A prolonged period of subdued economic growth is producing positive impacts for regional CO₂ emissions from transport sources. Generally flat traffic volumes and reduced commercial activity are, however, driving the emission totals, rather than improvements in vehicle efficiency or more environmentally friendly mode choice decisions.

Reduce deaths from road crashes to 6 or less per 100,000 population

 /  In 2009, 32 people were killed on the regions' roads. This is the lowest recorded total since 2000 – a year in which 32 deaths were also recorded. The positive 2009 result is, however, tempered by the year to date road death statistics for 2010 – 34 deaths have been recorded to the middle of September, surpassing the entire total for 2009.

Reduce deaths plus hospitalisations to less than 560 per 100,000 population

 The number of deaths plus hospitalisations is, once again, very high and the trend is heading away from the 2011 target. Whereas, the road death statistics for the Canterbury region were very positive in 2009, it is clear from this deaths plus hospitalisation data series that driver behaviour is still producing high numbers of crashes that result in drivers and their passengers being hospitalised.

Increase satisfaction among Canterbury's residents about their footpaths, pedestrian areas and overall walking environment



Satisfaction with the overall walking environment continues to remain high amongst residents of Canterbury.

Greater Christchurch (UDS Area) Targets

Reduce the proportion of single occupancy motor vehicles in peak periods within Greater Christchurch



No marked change in morning peak vehicle occupancy is evident from the vehicle occupancy surveys undertaken over the past few years.

No traffic congestion within Greater Christchurch outside peak periods & Contain the amount of congestion within Greater Christchurch during peak periods to 40 lane kilometres of less



Traffic volumes within Greater Christchurch present a mixed picture – with volumes up on some key roads, but flat on others. Congestion indicators suggest a decline in levels of service, but surveys may have been impacted negatively by a number of roadworks. Perceptions of congestion levels remain relatively constant.

Increase proportion of all trips (excluding walking trips) made by cycle to 12%



During 2009/10, the proportion of all trips (excluding walking trips) made by cycle was largely unchanged on 2008/09 – at under 3% of all trips made within the Greater Christchurch urban area.

Increase proportion of all trips (excluding walking trips) made by public transport to 6%



Overall public transport trip making within Greater Christchurch during 2009/10 was at broadly the same levels seen a year earlier, after several years of continuous growth. In terms of the share of all trips made within Greater Christchurch, public transport continues to attract between 3.5% and 4% of all trips, excluding walking trips. Trips by school age children contribute a significant share of all public transport trips.

1. Background

Prior to the Land Transport Management Amendment Act (LTMAA) 2008, the Regional Transport Committee (RTC) had a legislative requirement under the Land Transport Act 2003 to produce an Annual Monitoring Report (AMR) on the progress of its Regional Land Transport Strategy (RLTS). The report had to be produced within three months of the end of the financial year to which it related. The LTMAA 2008 removed this requirement and put in place legislation that now requires formal reporting on a three yearly basis.

Although formal reporting on the RLTS / RLTP is now only required on a three-yearly basis, monitoring data will continue to be collected annually. This is to allow reporting on observed trends in the three yearly reports - for which continuous data sets are required. The RTC has expressed a wish to see an annual picture of progress, even though formal reporting to the Minister is not required each year. To meet this request, the Regional Land Transport Annual Report Card has been developed.

The Annual Report Card is intended to have a dual role:

- to inform the RTC whether the region is heading towards, or away from, targets outlined in the RLTS; and
- to inform on the implementation of the Canterbury Regional Land Transport Programme (RLTP).

Following the release of the 2008/09 scorecard, the RTC also requested that a section be included in subsequent reports that a picture of transport investment highlights within the region was also included.

2. Introduction

This report is structured into three distinct areas.

Chapter 3 presents an overview of transport related highlights from around the region during the period July 2009 to June 2010.

Chapter 4 presents available data around implementation of the Canterbury RLTP during the same time period.

Chapter 5 and 6 then discuss progress towards the targets contained within the Canterbury RLTS. The RLTS contains 5 region wide targets, all with a time horizon of 2011:

- No congestion¹ outside Greater Christchurch (UDS Area);
- Carbon dioxide emissions increases to no more than 10% above 2001 levels;
- Reduce deaths from road crashes to 6 or less per 100,000 population;
- Reduce deaths plus hospitalisations to less than 560 per year;

¹ Congestion is defined in the RLTS in terms of minimum levels of service, which differ by time of day and also by type of road. Given measurement difficulties, congestion in this Annual Report Card is discussed in more generic terms.

- Increase satisfaction among Canterbury's residents about their footpaths, pedestrian areas and overall walking environment.

There are also 5 targets for the Greater Christchurch (UDS) area, again all with a 2011 time horizon:

- Reduce the proportion of single occupancy motor vehicles in peak periods within Greater Christchurch;
- No traffic congestion (see footnote 1) within Greater Christchurch outside peak periods;
- Contain the amount of congested (see footnote 1) road within Greater Christchurch during peak periods to 40 lane kilometres or less;
- Increase proportion of all trips (excluding walking trips) made by cycle to 12%;
- Increase proportion of all trips (excluding walking trips) made by public passenger transport to 6%.

The RTC has been informed in the past that quantitative measurement of progress towards some of these targets is not possible with available annual data. It is therefore essential that an entire new set of measureable targets is derived to measure the progress of the next RLTS in terms of its implementation.

In the interim, however, reporting focuses on a qualitative assessment of progress towards each target. For example, the three congestion targets are impossible to measure without comprehensive level of service monitoring of the entire Canterbury road network on an ongoing basis – as this is not a feasible task, the material that is presented in this report discusses whether congestion in Greater Christchurch and elsewhere within the region is getting better or worse, without reference to absolute levels.

In this report, the format for reporting progress around RLTS targets is essentially a two step process:

- Are we above trend, below trend, or on track to meet the target?
- Are we heading in the right direction?

3. Regional Transport Highlights – 2009/10

The following sections present a picture of the transport related investment activities that have been progressed / delivered during 2009/10. The list of activities has been prepared based upon material supplied by transport officers from the various approved organisations with the region.

State Highway Improvements

- ◆ SH73 Christchurch Southern Motorway Extension – construction phase commenced (NZTA).
- ◆ SH73 Pound Road intersection upgrade – completed (NZTA).
- ◆ SH74 Travis Road / Burwood Road / QEII Drive intersection improvements – completed (NZTA).
- ◆ SH75 Dunbars Road intersection upgrade – completed (NZTA).

- ◆ SH79 Inmans & Elliots Bridge widening – construction underway (NZTA).
- ◆ SH1 Winchester passing lanes – completed (NZTA).
- ◆ SH1/SH8 and SH1 / Seadown Road intersection improvements – completed (NZTA, TDC).

Local Road Improvements

- ◆ Christchurch City Mall upgrade completed, including laying of tram tracks for the planned extension of the Central City tram route (CCC).
- ◆ Renewal of 18.6km of kerb and channel in Christchurch City (CCC).
- ◆ Byron Street Extension, Rolleston – construction commenced (SDC).

Public Transport

- ◆ New contracts started in November which led to improved services on some routes in the north and south of the city. In particular, Christchurch hill suburbs in the south of the city received higher frequencies – with services to Dyers Pass and Murray Aynsley increasing from 60 to 30 minutes (ECan).
- ◆ The Sumner – Avonhead service was extended to the airport in November, with consequent increases in demand observed (ECan).
- ◆ New ticketing machines are being rolled out across the network (ECan).
- ◆ Bike racks were added to more services – now 14 routes have this facility (ECan).
- ◆ Good travel time / reliability improvements have been observed on the first Christchurch bus priority corridor – Papanui Road (ECan/CCC).
- ◆ Main North Road State Highway Bus Priority project – completed (NZTA).
- ◆ SH74 Travis Road / Bassett Street bus priority improvements – design completed (NZTA).
- ◆ The second Christchurch bus priority corridor – Queenspark – has also now been completed (CCC).
- ◆ Third Christchurch bus priority corridor – Colombo Street – was $\frac{3}{4}$ complete by end of June, with final sections under construction (CCC).
- ◆ 30 new bus stops, 15 bus shelters, 45 seats at bus stops, 10 bus finders and 1 Variable Message System display added to network (CCC).
- ◆ Approximately 100 bus stops moved and/or upgraded to provide sufficient length for buses to operate safely (CCC).

Rail

- ◆ Development of rail siding into IZone industrial area, Rolleston (Kiwirail, SDC).
- ◆ Implementation of CityDepot to port rail shuttle service (Kiwirail, LPC).
- ◆ Container terminal rail expansion, significantly increasing rail receival capacity and TEU throughput (LPC).

Walking & Cycling

- ◆ Installation pedestrian directional sign in Christchurch Central City (CCC).
- ◆ Construction of 1.8km of new cycleways, including the completion of the Northcote Road to Tuckers Road “off road” cycle path extension (CCC).

- ◆ Work on improving pedestrian priority in Christchurch Central City has been progressed (CCC).
- ◆ Council confirmed the route for the Little River Rail Trail to the south of Lincoln (SDC).
- ◆ Installation of Active Warning Signs at two rural schools, along with a range of other improvements at schools to improve safety and encourage walking and cycling (WDC).
- ◆ Installation of new footpaths in some of the districts smaller towns (WDC).
- ◆ Construction of combined footpath/cycleway from Killarney St / Churchill St intersection to racecourse in South Bay (KDC, NZTA).
- ◆ Development of a new Active Transport Strategy (TDC).
- ◆ Installation on first stage of walking wayfinding signage in Timaru CDB (TDC).
- ◆ Construction of 0.83km of new footpaths and resurfacing of 6.4km of footpath within the Timaru District (TDC).
- ◆ Construction of a new boardwalk, lookout and toilet facility along Caroline Bay (TDC).

Travel Demand Management

- ◆ Adoption of the Greater Christchurch Travel Demand Management Strategy (CCC, ECan, SDC and WDC).
- ◆ Acceptance of the “A to B” travel demand management branding initiative (ECan, CCC, WDC, SDC).

Transport Planning / Project Investigation & Design

- ◆ Christchurch Northern Arterial & QEII Four Laning (Northern Arterial to Hills Road) – scoping phase complete and scheme investigations ongoing (NZTA).
- ◆ Christchurch Southern Motorway Stage 2 Extension / Main South Road Four Laning – investigation contract let and underway (NZTA).
- ◆ Dyers Road improvements – design substantially complete, construction funding application underway (NZTA).
- ◆ SH1 Shingle Fans improvements – design complete and construction out to tender (NZTA).
- ◆ SH79 Inmans & Elliots Bridge widening – design completed (NZTA).
- ◆ SH73 Mingha Bluff to Rough Creek – design funding approved and being tendered (NZTA).
- ◆ SH1 Yaldhurst Road to Waterloo Road Four Laning – design ongoing (NZTA).
- ◆ SH1 Memorial Avenue intersection upgrade – scheme investigations completed (NZTA).
- ◆ SH1 Sawyers Arms Road to Memorial Avenue Four Laning – design phase substantially completed (NZTA).
- ◆ SH1 Groynes to Sawyers Arms Road Four Laning – design phase ongoing (NZTA).
- ◆ SH82 Waitaki Bridges replacement – investigations completed, design phase commenced (NZTA).
- ◆ The new Timaru Metro Strategy was adopted (ECan, TDC).
- ◆ The new Greater Christchurch Metro Strategy was drafted following nearly 2000 submissions from the public. It was approved by the Urban Development

Strategy Implementation Committee at the end of June and is now in the process of being adopted by each council (ECan, CCC, WDC, SDC).

- ◆ A review of Selwyn District services was completed and new services, developed as a result of this review process, are due to commence in November 2010 (ECan, SDC).
- ◆ A concept design of the Central City Transport Interchange was completed (CCC).
- ◆ Developed a travel plan for the new Christchurch City Council civic offices (CCC).
- ◆ Development of Selwyn District Transportation Plan Change which formally establishes a connection between sustainable land use and transport systems and the promotion of walking, cycling and travel demand management (SDC).
- ◆ Revised roading standards and classifications for Selwyn District that encapsulate the principles contained within the Selwyn District Council Urban Design Guide (SDC).

Other

- ◆ Approval of increased mass limits on heavy vehicles transporting product from Clandeboye dairy factory to the Temuka railhead, thus reducing truck movements (TDC).
- ◆ Stage One of coal yard expansion project completed and resource consent for land reclamation for future stage lodged with the Environment Court (LPC, Solid Energy).

4. Implementation of the Canterbury RLTP – 2009/10

The financial year 2009/10 was the first full year of the inaugural Canterbury Regional Land Transport Programme – the three year programme of transport expenditure for the region between 2009/10 and 2011/12.

The tables that follow compare the three year regional request for funding support against the funding approved by the New Zealand Transport Agency during 2009/10. Key points to note include:

- ◆ Maintenance, renewal and PT operations & infrastructure budgets largely tracking as requested;
- ◆ State Highway improvements 22% below amount requested. NZTA indicate that this situation is largely due to the mix of projects put forward for funding by NZTA State Highways being lower in terms of their total cost than the initial allocation requested when the RLTP 2009/12 was first prepared;
- ◆ Local road improvements approvals significantly down on amount requested – 59% for region as a whole. NZTA indicate that this is due to significant numbers of proposed projects still remaining as ‘Cat 2’ within the NLTP – i.e. they have not been progressed sufficiently in terms of development to be promoted to ‘Cat 1’ status in order to have funding approved;
- ◆ Transport planning expenditure much lower than envisaged for all AO’s except NZTA State Highways due to ongoing NZTA review of this activity class during 2009/10. As a result, limited numbers of studies have been approved by NZTA during 2009/10;
- ◆ Walking and cycling expenditure running at around ¼ of request due to shift in government spending priorities signalled in revised GPS on Transport.
- ◆ Rail & Sea Freight funding removed from NLTF due to shift in government spending priorities signalled in revised GPS on Transport.
- ◆ Administration Support activity class removed from NLTP and these costs now attached as “on-costs” to specific projects.

Activity Class	Ashburton District Council			Christchurch City Council			DOC (Mount Cook)		
	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10
Administration Support	\$323,951	\$0	0%	\$6,955,012	\$0	0%	\$7,500	\$0	0%
Demand Management & Community Programmes	\$403,943	\$101,245	25%	\$5,260,137	\$978,147	19%	\$0	\$0	-
Maintenance & Operation of Local Roads	\$8,499,656	\$8,499,656	100%	\$69,368,459	\$65,816,877	95%	\$345,000	\$345,000	100%
Maintenance & Operation of State Highways	\$0			\$0	\$0	-	\$0	\$0	-
New & Improved Infrastructure for Local Roads	\$3,610,152	\$2,103,318	58%	\$51,737,764	\$34,144,164	66%	\$147,600	\$155,890	106%
New & Improved Infrastructure for State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Public Transport Infrastructure	\$0	\$0	-	\$69,816,864	\$56,602,069	81%	\$0	\$0	-
Public Transport Services	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Rail & Sea Freight	\$3,174,000	\$0	0%	\$0	\$0	-	\$0	\$0	-
Renewal of Local Roads	\$17,226,187	\$17,226,187	100%	\$57,957,978	\$47,854,377	83%	\$0	\$0	-
Renewal of State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Transport Planning	\$370,097	\$0	0%	\$2,606,000	\$0	0%	\$0	\$0	-
Walking & Cycling Facilities	\$138,381	\$0	0%	\$11,084,584	\$5,112,751	46%	\$0	\$0	-
Totals	\$33,746,367	\$27,930,406	83%	\$274,786,798	\$210,508,385	77%	\$500,100	\$500,890	100%

Activity Class	Environment Canterbury			Hurunui District Council			Kaikoura District Council		
	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10
Administration Support	\$0	\$0	-	\$258,245	\$0	0%	\$67,342	\$0	0%
Demand Management & Community Programmes	\$1,398,040	\$242,258	17%	\$196,518	\$56,320	29%	\$132,340	\$35,499	27%
Maintenance & Operation of Local Roads	\$0	\$0	-	\$9,245,475	\$8,235,265	89%	\$1,173,000	\$1,178,000	100%
Maintenance & Operation of State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
New & Improved Infrastructure for Local Roads	\$0	\$0	-	\$2,716,962	\$0	0%	\$294,000	\$130,927	45%
New & Improved Infrastructure for State Highways	\$0		-	\$0	\$0	-	\$0	\$0	-
Public Transport Infrastructure	\$3,960,000	\$3,960,000	100%	\$0	\$0	-	\$0	\$0	-
Public Transport Services	\$122,034,743	\$118,865,293	97%	\$0	\$0	-	\$0	\$0	-
Rail & Sea Freight	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Renewal of Local Roads	\$0	\$0	-	\$9,716,550	\$8,609,977	89%	\$958,000	\$958,000	100%
Renewal of State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Transport Planning	\$5,628,300	\$971,884	17%	\$61,820	\$0	0%	\$0	\$0	-
Walking & Cycling Facilities	\$0	\$0	-	\$275,000	\$0	0%	\$800,000	\$0	0%
Totals	\$133,021,083	\$124,039,435	93%	\$22,470,570	\$16,901,562	75%	\$3,424,682	\$2,302,426	67%

Activity Class	Mackenzie District Council			New Zealand Transport Agency			Selwyn District Council		
	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10
Administration Support	\$179,700	\$0	0%	\$7,989,042	\$0	0%	\$347,839	\$0	0%
Demand Management & Community Programmes	\$0	\$0	-	\$206,000	\$40,333	20%	\$886,000	\$162,800	18%
Maintenance & Operation of Local Roads	\$4,076,500	\$3,890,945	95%	\$0	\$0	-	\$13,591,230	\$10,592,397	78%
Maintenance & Operation of State Highways	\$0	\$0	-	\$75,733,343	\$63,116,557	83%	\$0	\$0	-
New & Improved Infrastructure for Local Roads	\$1,268,700	\$615,234	48%	\$0	\$0	-	\$8,554,195	\$3,613,548	42%
New & Improved Infrastructure for State Highways	\$0	\$0	-	\$190,409,489	\$147,703,683	78%	\$0	\$0	-
Public Transport Infrastructure	\$0	\$0	-	\$3,028,000	\$3,128,000	103%	\$0	\$0	-
Public Transport Services	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Rail & Sea Freight	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Renewal of Local Roads	\$3,227,970	\$2,984,030	92%	\$0	\$0	-	\$16,516,024	\$12,948,643	78%
Renewal of State Highways	\$0	\$0	-	\$64,424,340	\$56,034,205	87%	\$0	\$0	-
Transport Planning	\$0	\$0	-	\$357,545	\$1,384,100 (1)	387%	\$77,910	\$77,910	100%
Walking & Cycling Facilities	\$0	\$0	-	\$3,027,655	\$0	0%	\$1,075,280	\$0	0%
Totals	\$8,752,870	\$7,490,209	86%	\$345,175,414	\$271,406,878	79%	\$41,048,478	\$27,395,298	67%

(1) Original request amended by subsequent variation to RLTP – approved October 2009 to add AMP and RoNS investigation work

Activity Class	Timaru District Council			Waimakariri District Council			Waimate District Council		
	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10	request	approved	% of 3-yr request approved in 09/10
Administration Support	\$901,866	\$0	0%	\$450,000	\$0	0%	\$112,907	\$0	0%
Demand Management & Community Programmes	\$840,000	\$168,080	20%	\$450,000	\$105,000	23%	\$0	\$0	-
Maintenance & Operation of Local Roads	\$12,098,000	\$11,588,365	96%	\$11,069,055	\$11,069,055	100%	\$3,789,901	\$3,789,901	100%
Maintenance & Operation of State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
New & Improved Infrastructure for Local Roads	\$8,921,000	\$3,848,637	43%	\$2,589,500	\$2,164,627	84%	\$982,703	\$820,937	84%
New & Improved Infrastructure for State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Public Transport Infrastructure	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Public Transport Services	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Rail & Sea Freight	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Renewal of Local Roads	\$20,310,000	\$18,877,975	93%	\$13,073,969	\$13,073,969	100%	\$5,287,279	\$5,287,249	100%
Renewal of State Highways	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-
Transport Planning	\$220,000	\$60,000	27%	\$0	\$0	-	\$0	\$0	-
Walking & Cycling Facilities	\$510,000	\$0	0%	\$1,583,000	\$0	0%	\$0	\$0	-
Totals	\$43,800,866	\$34,543,057	79%	\$29,215,524	\$26,412,651	90%	\$10,172,790	\$9,898,087	97%

Activity Class	Canterbury Region		
	request	approved	% of 3-yr request approved in 09/10
Administration Support	\$17,593,404	\$0	0%
Demand Management & Community Programmes	\$9,772,978	\$1,889,682	19%
Maintenance & Operation of Local Roads	\$133,256,276	\$125,005,461	94%
Maintenance & Operation of State Highways	\$75,733,343	\$63,116,557	83%
New & Improved Infrastructure for Local Roads	\$80,822,576	\$47,597,282	59%
New & Improved Infrastructure for State Highways	\$190,409,489	\$147,703,683	78%
Public Transport Infrastructure	\$76,804,864	\$63,690,069	83%
Public Transport Services	\$122,034,743	\$118,865,293	97%
Rail & Sea Freight	\$3,174,000	\$0	0%
Renewal of Local Roads	\$144,273,957	\$127,820,406	89%
Renewal of State Highways	\$64,424,340	\$56,034,205	87%
Transport Planning	\$9,321,672	\$2,493,894	27%
Walking & Cycling Facilities	\$18,493,900	\$5,112,751	28%
Totals	\$946,115,542	\$759,329,284	80%

5. Progress towards Canterbury wide targets

Target: No congestion outside Greater Christchurch (UDS Area)



Traffic levels on rural State Highways around the region appear largely static – when compared to 2008. After the fuel price spike related falls seen a year ago, traffic volumes on the northern and southern approaches to Christchurch have increased during 2009 – typically now back to the volumes seen in 2007. Residents from outside Greater Christchurch rarely report experience of traffic congestion and when they do, it is generally confined to peak period trips on the northern approach to Christchurch.

The RLTS recommends a minimum level of service (LoS) outside of Christchurch City. Whilst the specified LoS varies by road type and time of day, the target essentially is stating that the desired outcome is that there are no serious instances of heavy congestion that occur on a regular and ongoing basis.

The Canterbury State Highway network carries around 40% of vehicle kilometres travelled in the region. Figures 5.1 and 5.2 present traffic count data for several rural State Highway locations around the Canterbury region.

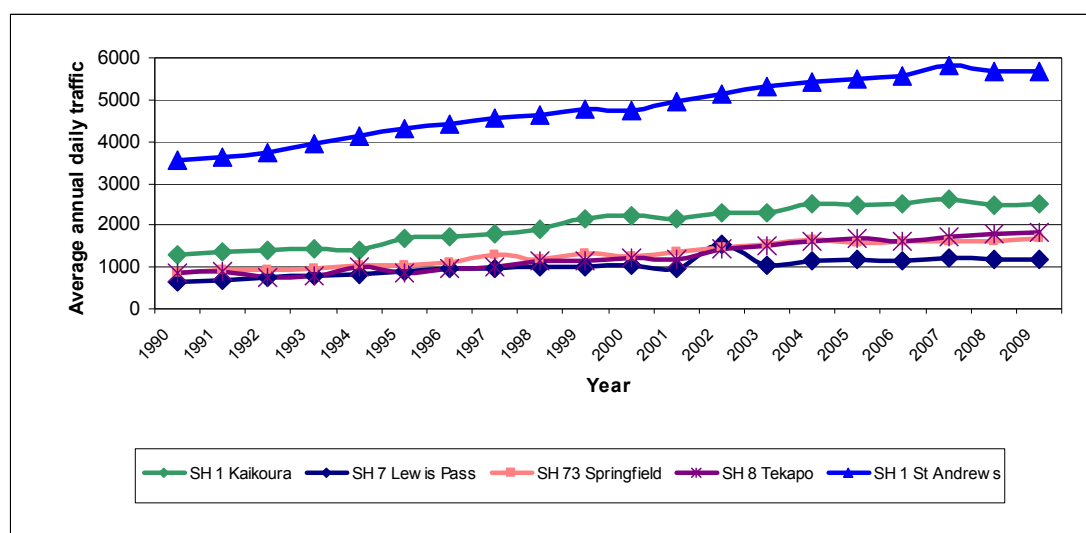


Figure 5.1: Annual average daily traffic (AADT) counts at selected rural State Highway locations
Source: NZTA

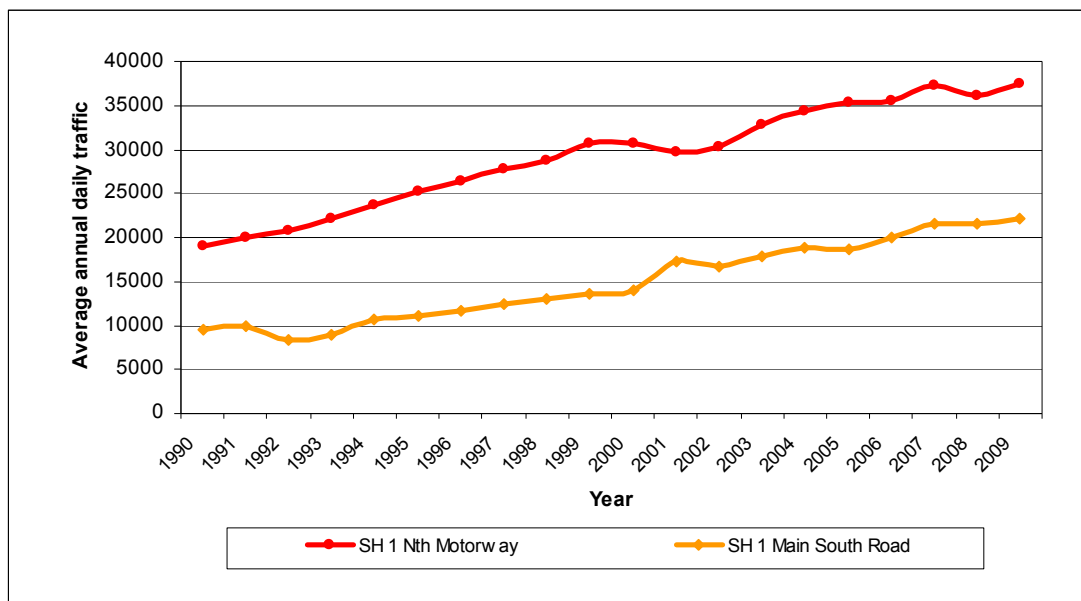


Figure 5.2: Annual average daily traffic (AADT) counts at rural State Highway locations to the north and south of Christchurch

Source: NZTA

Discussion

Fuel prices have been relatively stable during the year from July 2009, only fluctuating in a narrow range from \$1.57/litre to \$1.80/litre – for 91 octane petrol. Whilst these levels are still high historically, they are markedly lower than the prices seen during the winter of 2008.

Fuel sales, which are a good indicator of total travel being undertaken in the region, remained subdued during 2009. Petrol sales in the region are slightly up – back to the levels of 2007 – but on a per capita basis, are at their lowest level (689 litres/resident) since this series was first produced in 1998. Sales of diesel are notably (down 2%) lower again (after the falls seen in 2008) during 2009, as the prolonged recession continues to impact negatively on business activity within the region.

Ministry of Transport regional vehicle fleet data for Canterbury has seen growth in the size of the fleet in every year since 2000, except for 2009. Two thousand fewer light passenger vehicles and five hundred fewer heavy goods vehicles were estimated to be in the fleet in 2009 when compared to 2008. This fleet data, together with the fuel sales data noted in the preceding paragraph suggest that on average, a typical Cantabrian is travelling less intensively than they have done in previous years.

Perceptions of congestion around the region, as measured in the Environment Canterbury Opinions Monitor Survey, remain low – only 8% of Cantabrians surveyed indicated that they experienced congestion either “very often” or “quite often” on roads outside of Christchurch – with the northern approaches to Christchurch City being the only area to feature to an identifiable extent.

Target: Carbon dioxide emissions to increase by no more than 10% above 2001 levels



A prolonged period of subdued economic growth is producing positive impacts for regional CO₂ emissions from transport sources. Generally flat traffic volumes and reduced commercial activity are, however, driving the emission totals, rather than improvements in vehicle efficiency or more environmentally friendly mode choice decisions.

Transport related carbon dioxide emissions for the region are calculated via a methodology that employs petrol and diesel sales data. Whilst improvements in engine efficiency for newer vehicles translates into lower fuel consumption for a given distance travelled, intensity of transport is intimately linked to economic and population growth and the average age / inefficiency of the regions' vehicle fleet continues to increase. Furthermore, there is little evidence that significant numbers of Cantabrians are choosing less carbon intensive modes of transport for their travel.

Discussion

2004 saw a peak in sales of petrol in the region – when 387 million litres were sold. Since then, sales have settled at around 380/385 million litres a year. In terms of per capita consumption, the 2009 figure of 689 litres/person is the lowest it has been since this series was commenced in 1998 and is closely related to flat traffic volumes and a reduction in the size of the regions' petrol powered vehicle fleet, as noted above. Diesel sales are more closely linked to economic growth than sales of petrol, reflecting its heavy use in commercial vehicles and also off-road applications. Diesel sales in the region have increased every year since 1998, except for the last two years – in 2008 a 1% fall in diesel sales was recorded, with a further 2% fall in 2009.

Figure 5.3 shows how the fuel price spike in 2008, with subsequent fall off in economic growth has impacted upon transport related CO₂ emission estimates for the Canterbury region.

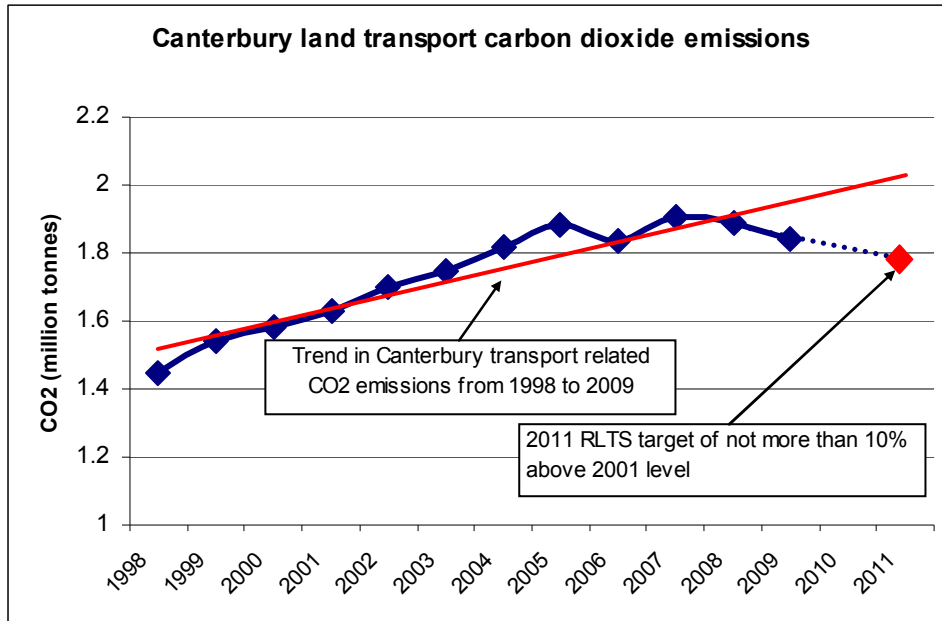


Figure 5.3: Time series analysis of transport related CO₂ emissions in Canterbury.
Source: Territorial authority fuel sales data and ECan derived CO₂ calculation formulae

The average age / inefficiency of the regions' vehicle fleet also continues to increase. The average age of a light passenger vehicle in Canterbury has increased from 12.5 years in 2005, to 13.4 years in 2009. The corresponding figures for heavy goods vehicles and buses are largely static – 14.8 years for both categories in 2009.

Available transport mode choice data from the Ministry of Transport Household Travel Survey suggests that, within Greater Christchurch at least, little evidence of modal switching is evident – in 2009/10, 74% of all trip legs were undertaken in a private motor vehicle, either as a the driver or as a passenger.

Whilst recent trends on CO₂ emissions are therefore positive, this has more to do with historically high (although less volatile of late) fuel prices and recessionary effects, rather than any fundamental decoupling of fuel use from economic growth or through travel being undertaken by less carbon intensive modes of transport. The challenge for Canterbury and, indeed, the wider New Zealand economy is to continue to reduce transport related CO₂ emissions when economic growth picks up once again.

Target: Reduce deaths from road crashes to 6 or less per 100,000 population

😊/😞 In 2009, 32 people were killed on the regions' roads. This is the lowest recorded total since 2000 – a year in which 32 deaths were also recorded. The positive 2009 result is, however, tempered by the year to date road death statistics for 2010 – 34 deaths have been recorded to the middle of September, surpassing the entire total for 2009.

Figure 5.4 presents a time series analysis of road deaths in the Canterbury region, expressed as a rate per 100,000 population.

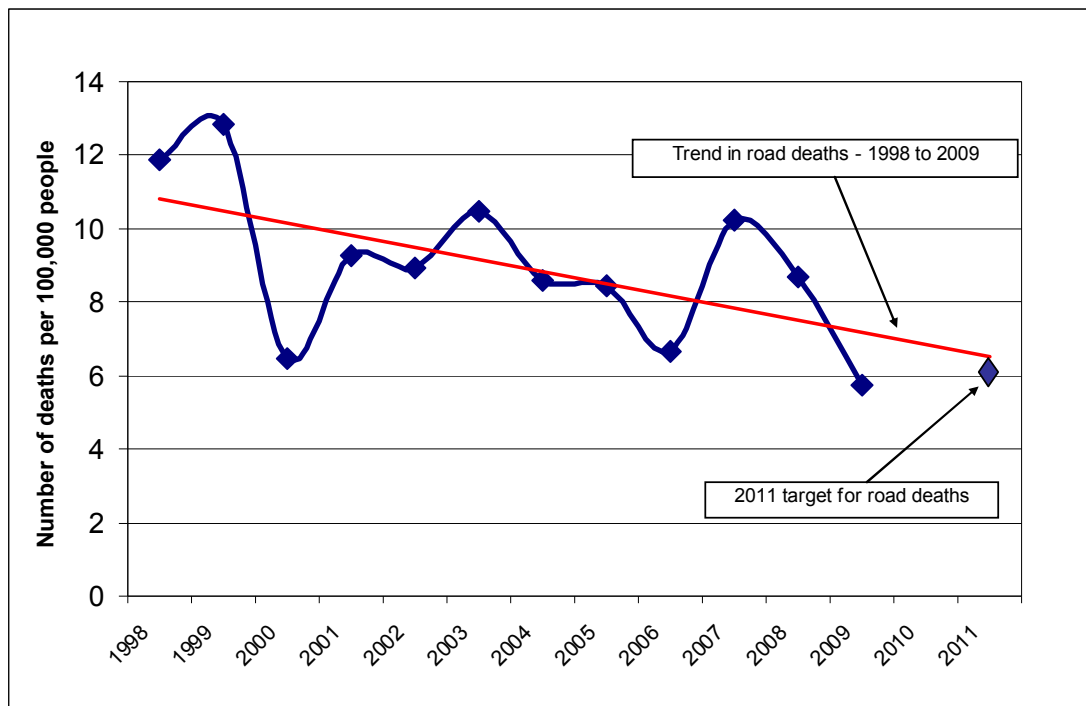


Figure 5.4: Road deaths in the Canterbury region – 1998 to 2009
Source: NZTA

Discussion

The 32 deaths in 2009 within the Canterbury region that were the result of motor vehicle crashes represented the lowest road toll that the region has produced since this data series has been tracked. Whilst this number of road crash deaths is below the 6 deaths per 100,000 population, the year to date figures for 2010 are already higher – suggesting that perhaps the 2009 results did not represent a strong downward trend, but rather a positive one off outturn.

Target: Reduce deaths plus hospitalisations to less than 560 per 100,000 population

☹ The number of deaths plus hospitalisations is, once again, very high and the trend is heading away from the 2011 target. Whereas, the road death statistics for the Canterbury region were very positive in 2009, it is clear from this deaths plus hospitalisation data series that driver behaviour is still producing high numbers of crashes that result in drivers and their passengers being hospitalised.

Figure 5.5 presents data for the period 2001 to 2009 for a combined deaths plus hospitalisation series – 2001 was the year in which the monitoring programme began tracking this road safety indicator. It also highlights the trend in the series over this timeframe, together with the 2011 target of less than 560 per 100,000 Canterbury residents.

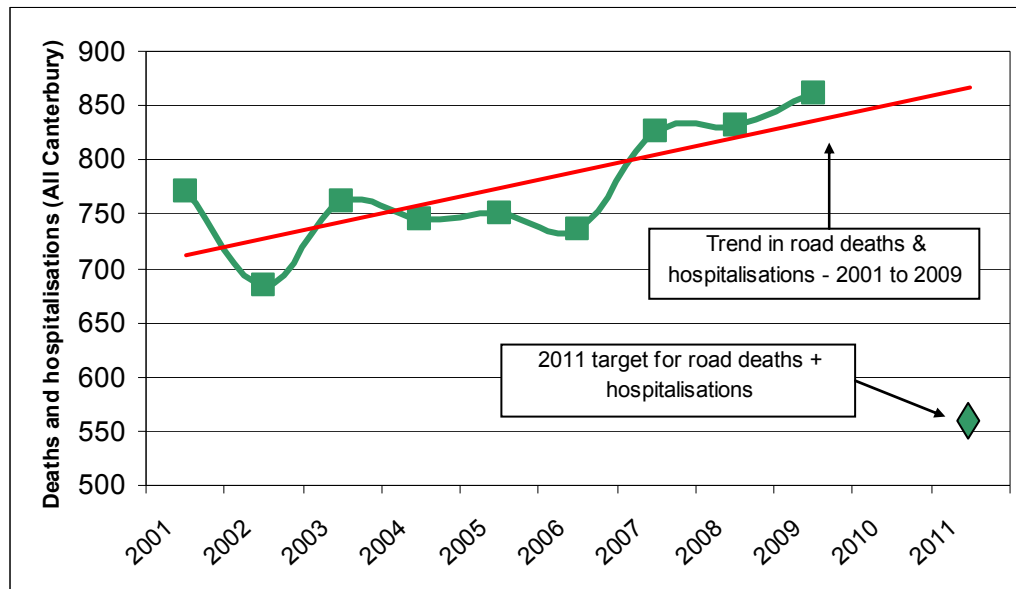



Figure 5.5: Road deaths plus hospitalisations in the Canterbury region – 2001 to 2009
 Source: NZTA

Discussion

When compared to the 2009 Canterbury road death statistics, the pattern of deaths plus hospitalisations observed clearly reinforces the points raised in last years’ annual scorecard. Serious accidents, that cause hospitalisation, if not death, are happening with increasing frequency, with this indicator still heading away from the 2011 RLTS target.

Target: Increase satisfaction among Canterbury’s residents about their footpaths, pedestrian areas and overall walking environment



Satisfaction with the overall walking environment continues to remain high amongst residents of Canterbury.

Discussion

The RLTS recognises the importance of walking and promotes pedestrian-friendly built environments. Pedestrian-friendly environments, where people choose to walk for short distance journeys and enjoy their experience of being out and about, are difficult to measure using quantitative techniques, but an annual perception survey of 600 Canterbury residents (400 people in Christchurch and 200 people outside of

Christchurch) has been used to gauge residents' satisfaction with the overall walking environment.

Figure 5.6 presents a time series analysis of Cantabrians response to the following question about their perceptions of their walking environment.

Thinking about the places you go, overall how easy or difficult is it to walk around using public facilities such as footpaths, pedestrian areas, street crossings?

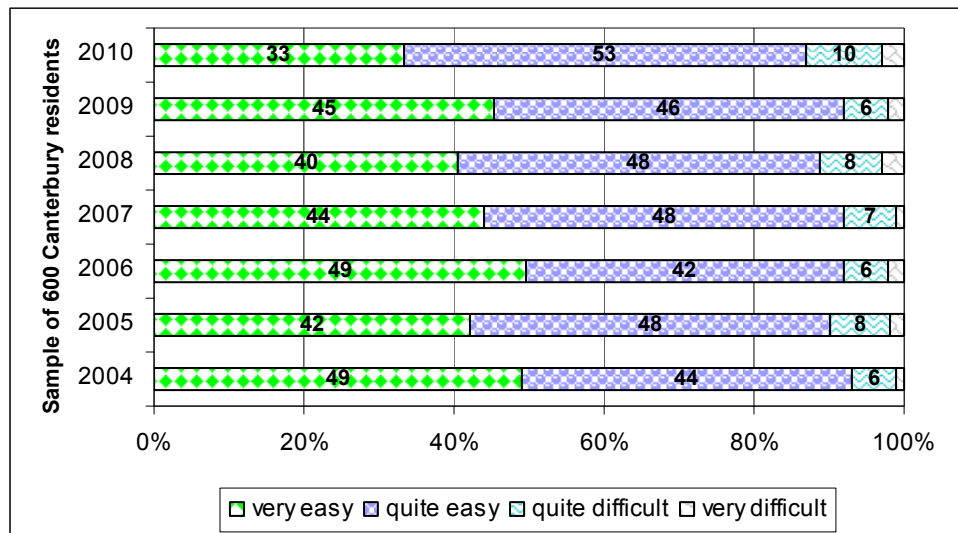


Figure 5.6: Cantabrians perceptions of their walking environment – 2004 to 2010
Source: Environment Canterbury Opinions Monitor Survey

Over the six year period to 2009, satisfaction with the walking environment has largely remained high and stable – typically around 9 out of 10 Cantabrians indicate that they find walking around the city / wider region either “very easy” or “quite easy”.

Whilst Cantabrians state that they are generally satisfied with the walking environment that is available to them, walking is not the mode of choice for the vast majority of trips that are made. The Ministry of Transport Household Travel Survey (HTS) data provides an insight into the actual walking habits of Canterbury residents. In 2009/10, around 20% of all trip legs in the region were made on foot. Whilst this gives an indication of walking trips, it does not say a great deal about how far people are walking. The HTS does allow analysis of how many residents are undertaking 30 minutes or more of active (i.e. walking or cycling) a day – this is a level that is typically taken to indicate whether any health benefits are being derived by the community from the active travel activity. In 2009/10, 13% of Cantabrians state that they walked or cycled for more than 30 minutes on both survey days, whereas 22% achieved this level of physical activity over the two day survey period.

6. Progress towards Greater Christchurch (UDS Area) targets

Target: Reduce the proportion of single occupancy motor vehicles in peak periods



No marked change in morning peak vehicle occupancy is evident from the vehicle occupancy surveys undertaken over the past few years.

Discussion


The Environment Canterbury Vehicle Occupancy Survey was last undertaken in 2009 – having been previously conducted in 2007 and 2003. The 2007 survey indicated that the average occupancy of cars/vans was 1.34. Repeating the survey this year has produced an equivalent figure of 1.27. The 2003 survey, by comparison, produced a result of 1.29.

From the above, it would seem reasonable to conclude that car occupancy within Christchurch City, during the morning peak, has remained largely unchanged over the period from 2003 to 2009. This result is largely as would be expected as there has been little encouragement or persuasion to encourage car pooling / ride sharing during the period in question. Essentially, car sharing / pooling that is observed is largely a result of personal choice, rather than as a direct result of any policy implementation / other intervention methods.

In last years' Annual Scorecard it was noted that the annual Greater Christchurch data sample from the Ministry of Transport Household Travel Survey (HTS) will be able to provide better data on vehicle occupancy trends going forward. The Environment Canterbury Vehicle Occupancy Survey only provides a one week snapshot of vehicle occupancy at the 'city end' of key radial route into Christchurch, whereas the HTS takes an ongoing view across a far wider range of trips that are made during the morning peak period.

Analysis undertaken on the 2009/10 HTS data suggest an average vehicle occupancy figure of 1.45 for trip legs originating within the 7am to 9am time period. When this data is broken down further into 7am to 8am and 8am to 9am segments two distinct patterns are evident – 1.27 in the first hour and 1.56 in the second hour (both figures for residents of Christchurch City). This very different vehicle occupancy is likely driven by schooltrips in the second hour, whereas the 1.27 figure is probably more typical of the journey to work behaviour alone. Trends in these two aspects of peak period vehicle occupancy will continue to be monitored going forward, as they have quite distinct policy implications.

Targets: No traffic congestion within Greater Christchurch outside peak periods & contain the amount of congestion within Greater Christchurch during peak periods to 40 lane kilometres of less

 Traffic volumes within Greater Christchurch present a mixed picture – with volumes up on some key roads, but flat on others. Congestion indicators suggest a decline in levels of service, but surveys may have been impacted negatively by a number of roadworks. Perceptions of congestion levels remain relatively constant.

Discussion

It has been noted in previous Annual Monitoring Reports that the “lane kilometre” congestion target is very difficult to measure in a quantifiable manner. As such, this target will be replaced as part of the forthcoming major review of the RLTS. For the interim, the RLTS Annual Scorecard will use data that is currently available to comment on congestion issues within Greater Christchurch in a more generic manner – essentially, is congestion getting better or worse?

Whilst these are two distinct RLTS targets, they are discussed within one section of this Annual Scorecard – largely because the indicators used to understand the progress being made are the same ones for each target.

The monitoring programme has three indicators that provide an insight into traffic congestion within the Greater Christchurch urban area – the NZTA Travel Time Survey, the Environment Canterbury Opinions Monitor Survey and Average Daily Traffic (ADT) count data from Christchurch City Council² monitoring sites. Each of these is discussed in turn below.

Christchurch Travel Time Survey

This survey is undertaken by NZTA, in partnership with Environment Canterbury and Christchurch City Council, twice each year – in March and November. The latest available data set is for March 2010.

Two sets of the data from the Travel Time Survey are reproduced in this monitoring report:

- **Congestion Indicator (CGI)** – this compares observed travel time against the theoretical minimum that would be possible, if travelling, unimpeded by any delay (congestion related or intersection related) whatsoever, at the posted maximum speed. Over time, the CGI gives an indication as to whether journey times are becoming quicker or slower – the latter tending to indicate increasing delay associated with congestion.
- **Variability Indicator (VTT)** – as part of each survey, a number of distinct vehicle ‘runs’ are undertaken. The VTT measures how consistent travel times

² Attempts have been made to source comparable data from Rangiora and Kaiapoi, but count site data series do not appear to show stable trends.

are. A high degree of travel time variability is often a good indicator of a congested network.

Figure 6.1 presents March data for the period 2006 to 2010 for the CGI in peak and interpeak periods within Greater Christchurch.

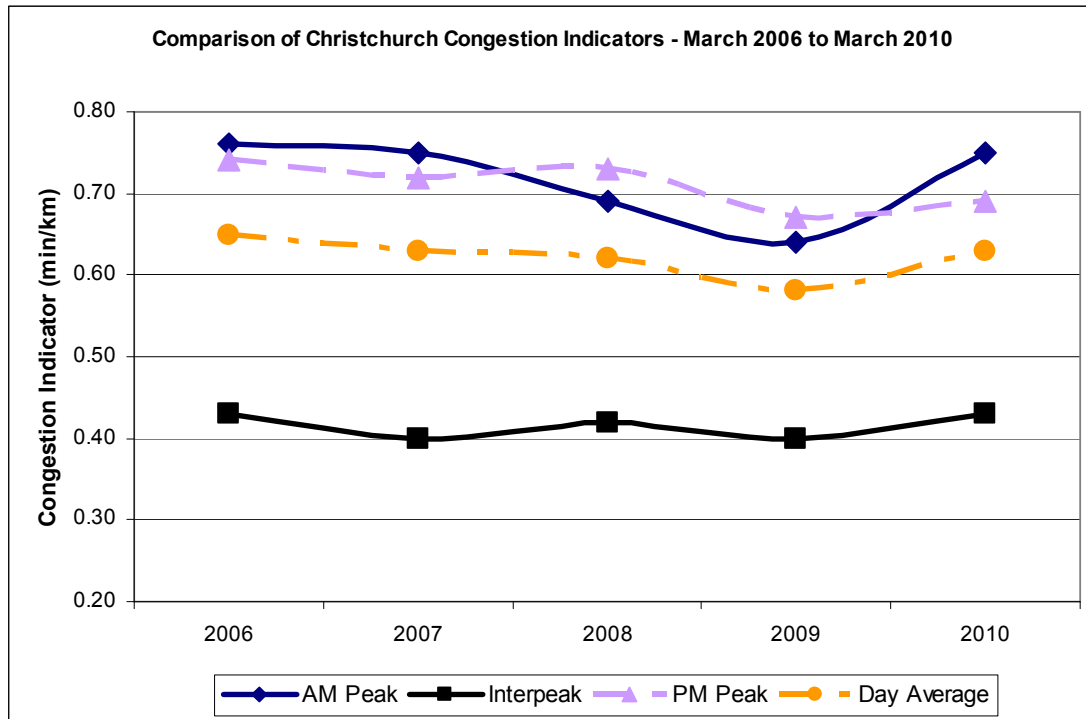


Figure 6.1: Trends in Christchurch Congestion Indicator – 2006 to 2010
Source: NZTA Travel Time Surveys

The CGI indicator can only ever be at zero if a given journey is undertaken at the posted speed limit – in other words, there is no slowing / stopping / accelerating from traffic signals and there is no other disruption to the trip speed. Clearly in any city, but particularly in one like Christchurch, traffic signals have major impact upon actual journey times. The interpeak period in Christchurch is largely uncongested and this relatively stable travel time can be seen in Figure 6.1. What this is essentially saying is that when there is no congestion, a CGI value of around 0.4 is to be expected across the Christchurch road network, simply due to negotiating traffic management systems.

As congestion is more a phenomenon associated with peak period travel, the difference between the interpeak CGI and peak period values gives a better indication of the impact of congestion on travel times – the traffic signals are the same ones, so the additional delay can be largely attributed to congestion. Figure 6.1 suggests that congestion improved in Christchurch over the three year period from March 2006 to March 2009, but has worsened during the last year. This apparent worsening of travel conditions is most noticeable in the morning peak period – where congestion levels have returned to that last seen in 2007. The 2010 survey report does caveat its findings in the sense that a number of the surveyed routes were negatively affected by roadworks during the survey period – future surveys will provide confirmation on whether the observed results are indicative of a change in trend, or a one off result.

Figure 6.2 presents a time series profile for travel time variability within Christchurch for the morning peak, interpeak and afternoon peak periods.

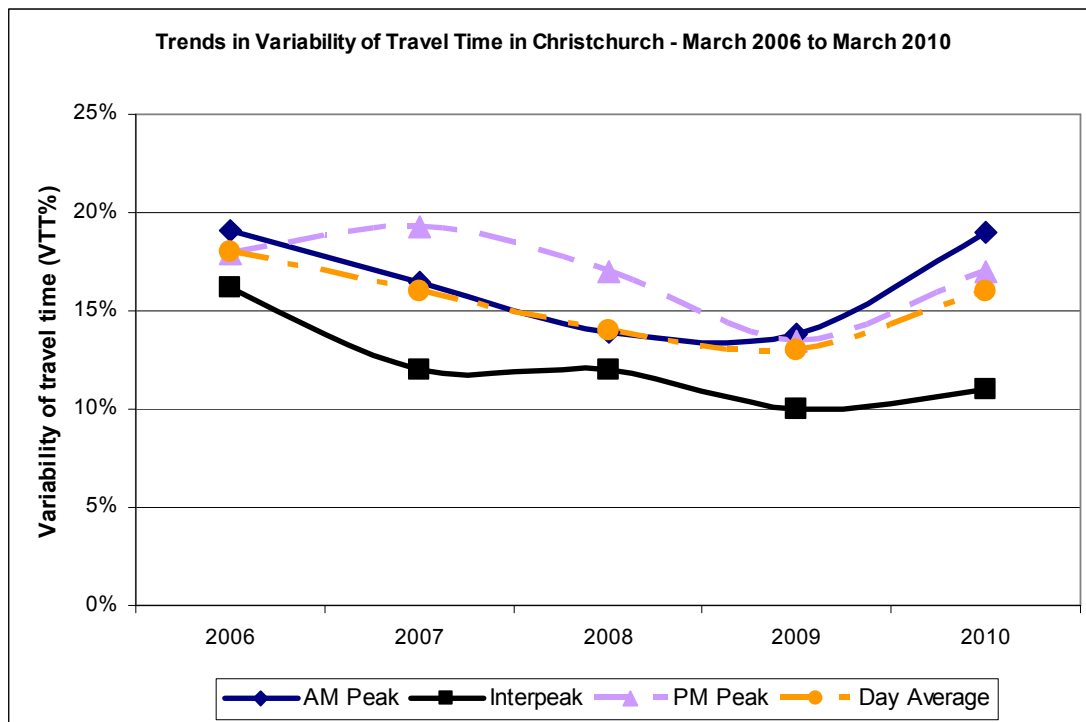


Figure 6.2: Trends in Christchurch Travel Time Variability – 2006 to 2010
Source: NZTA Travel Time Surveys

The variability data presented tends to mirror the CGI data reported in Figure 6.1 – the last year shows a marked worsening in travel variability in the peak periods. Perceptions of congestion and traffic count data (reported below) do not, however, support this observed pattern of data, so future surveys will be analysed to understand whether the March 2010 surveys were representative of actual congestion issues, or a one-off results adversely affected by roadworks during the survey week.

Perceptions of Congestion

The Environment Canterbury Opinions Monitor Survey asks 400 residents of Christchurch and 200 residents of the wider region the following question each year:

Thinking about travelling in and around Christchurch, for example by car, public transport, bicycle or on foot, how often does traffic congestion on Christchurch roads affect your travel?

Figure 6.3 shows how the response to this question has evolved since 2003.

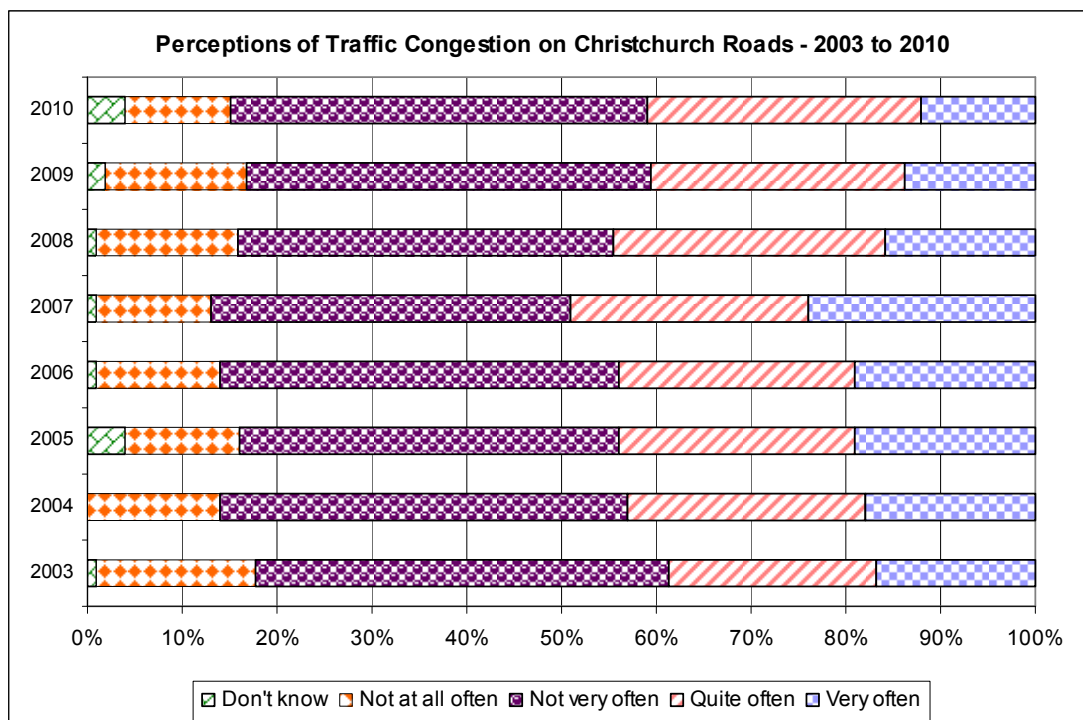


Figure 6.3: Perceptions of Traffic Congestion on Christchurch Roads – 2003 to 2010
Source: Environment Canterbury Opinions Monitor Survey

Whilst the proportion of respondents answering ‘quite often’ or ‘very often’ has remained in a broad band of between 40% and 50% over time, there has been a year on year decline since 2007.

For those that do report that traffic congestion in Christchurch affects them on a regular basis, Papanui Road and Riccarton Road are the two most frequently mentioned locations.

Average Daily Volumes

Figure 6.4 presents average daily traffic count data for a series of key locations around the city.

After the decline in volumes observed at most count sites during 2008, 2009 presents a more mixed picture of traffic levels – 3 locations (Northern Motorway, Riccarton Road – Newnham Terrace and Ferry Road) have experienced increases, whereas other locations are largely flat when compared to 2008.

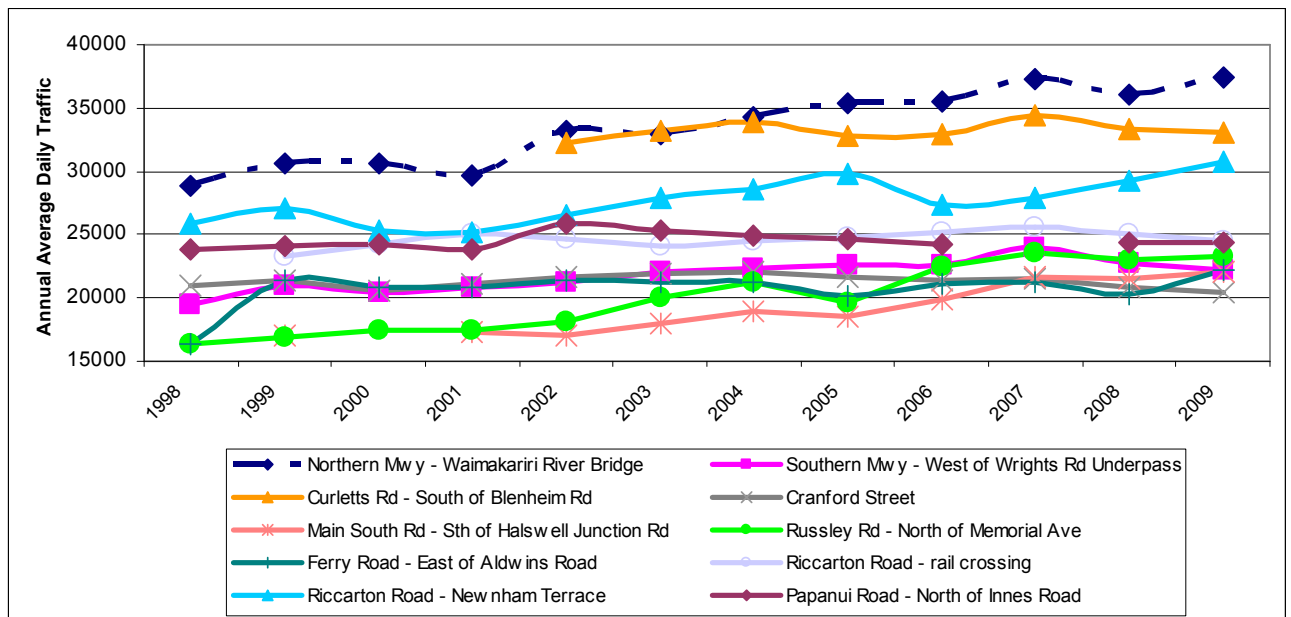



Figure 6.4: ADT counts at selected Christchurch locations
Source: NZTA and Christchurch City Council

Overall Summary

Despite the observed travel time survey results, the available evidence suggests that traffic growth within Greater Christchurch remained subdued during 2009/10. Whilst fuel prices were stable, they were stable at a relatively high level over the period. This, coupled with a continuation of a period of relatively subdued economic activity (borne out in the reduced fuel consumption data), has produced a largely unchanged congestion picture across the urban area.

Target: Increase proportion of all trips (excluding walking trips) made by cycle to 12%


 During 2009/10, the proportion of all trips (excluding walking trips) made by cycle was largely unchanged on 2008/09 – at under 3% of all trips made within the Greater Christchurch urban area.

Discussion

The 2009/10 mode share data from the MoT Household Travel Survey (HTS) largely confirms the 2008/09 share of all trip making, excluding walking trips, that are made by cycle within Greater Christchurch – 2.5% of trips in the 2008/09 survey, versus 2.7% in 2009/10. By historical standards, these percentages remain at very low levels, with little indication that significant change will occur without major changes in attitudes towards cycling.

Over half of Christchurch City residents who responded to the HTS in 2009/10 have not used a bicycle in the past 12 months – a figure that is also virtually unchanged on a year ago.

Target: Increase proportion of all trips (excluding walking trips) made by public transport to 6%

 Overall public transport trip making within Greater Christchurch during 2009/10 was at broadly the same levels seen a year earlier, after several years of continuous growth. In terms of the share of all trips made within Greater Christchurch, public transport continues to attract between 3.5% and 4% of all trips, excluding walking trips. Trips by school age children contribute a significant share of all public transport trips.

Discussion

2009/10 is the first year since 2003/04 in which public transport patronage has not grown. Given the recovery in general traffic volumes noted in Figures 5.2 and 6.4, it would appear logical to conclude that the fuel spike related patronage gains that public transport enjoyed in 2008/09 have been tempered now that fuel prices have returned to generally lower and less volatile levels. Furthermore, 2009/10 did not see any major enhancements to service provision stemming from the service review process. Growth seen in past years can, to an extent, be attributed to the service

review process – for example, the changes to the Northern Star service made in 2006 continued to boost patronage into the 2008/09 year.

Against this system-wide overall picture, good patronage growth and service reliability / journey time improvements have been witnessed on the Papanui Road / Main North Road corridor since the introduction of peak period bus priority measures. On average, since the introduction of the priority measures, buses are travelling between 2 and 3 minutes faster during peak period, with travel time reliability also noticeably improved³.

Across the Greater Christchurch urban area, public transport takes around a 4% share of all trip making, with a slightly higher share within Christchurch City itself, where service provision is more extensive.

In terms of demographics, school age children are slightly more likely than other segments to use public transport, with the lowest intensity of public transport trip making amongst the over 65's.

³ Data taken from an internal Environment Canterbury report that compares journey time data from November 2008 / February 2009 with November 2009 / February 2010.